VANTEX
Study Guides

TSIA2 Exam Simulations Answer Key

2026–2027 Edition

Comprehensive Answer Key & Explanations

30 Exams · 1,480 Questions · Detailed TSIA2 References

Full CRC Exams · ELAR Diagnostic Exams · Math Diagnostic Exams

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This answer key contains detailed explanations and TSIA2 skill references for all 1,480 practice questions across 30 exam simulations. Full CRC Exams mirror the complete TSIA2 assessment; Diagnostic Exams target specific content areas.

FULL CRC EXAM

TSIA2 Simulated Exam 1 — 2026

50 Questions — Answer Key with Explanations

QUESTION 1

Read the following passage:

> *"The barn owl perched motionless on the rafter, its heart-shaped face tilted toward the floor below. Mice scurried through the hay, unaware of the silent predator overhead. When the owl finally descended, it moved without a whisper of sound, its specially adapted feathers slicing through the air like a blade through silk. The mice never heard their fate approaching."*

The author's use of the simile "like a blade through silk" primarily serves to —

A) contrast the softness of silk with the sharpness of the owl's talons

B) highlight the effortless and silent nature of the owl's movement

C) emphasize the dangerous speed of the owl's descent

D) suggest that the owl is a cruel and heartless predator

Correct Answer: B) highlight the effortless and silent nature of the owl's movement

Explanation: The correct answer is **B) highlight the effortless and silent nature of the owl's movement**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'highlight the effortless and silent nature of the owl's movement'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 2

Read the following passage:

> *"Grandmother kept her garden the way a librarian keeps rare manuscripts — with reverence, precision, and an unshakable belief that what grew there mattered more than anyone else could understand. Each tomato vine was staked with the care of a surgeon setting a bone; each row of beans was spaced with the exactitude of a typesetter arranging movable type."*

The narrator's tone toward Grandmother is best described as —

A) mocking and dismissive

B) admiring and affectionate

C) neutral and detached

D) anxious and concerned

Correct Answer: B) admiring and affectionate

Explanation: The correct answer is **B) admiring and affectionate**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'admiring and affectionate' as the dominant tone.

QUESTION 3

Read the following passage:

> *"Urban beekeeping has surged in popularity over the past decade, with cities from Detroit to Denver relaxing ordinances that once banned hives within municipal boundaries. Proponents argue that urban hives bolster pollinator populations critical to local food gardens. Critics, however, point to studies showing that domesticated honeybees can outcompete native solitary bees for floral resources, potentially harming the very biodiversity advocates claim to protect."*

The passage is primarily organized by —

A) comparing the biology of honeybees with that of native solitary bees

B) describing a trend and then presenting opposing perspectives on it

C) listing the steps involved in establishing an urban beekeeping operation

D) narrating the history of beekeeping laws in American cities

Correct Answer: B) describing a trend and then presenting opposing perspectives on it

Explanation: The correct answer is **B) describing a trend and then presenting opposing perspectives on it**. Text structure describes how a writer arranges information — common patterns include cause/effect, compare/contrast, problem/solution, and chronological order. The sequence of ideas and transitional language in this passage most clearly reflects 'describing a trend and then presenting opposing perspectives on it'.

QUESTION 4

Read the following passage:

> *"Sleep deprivation affects the prefrontal cortex, the brain region responsible for executive functions such as planning, impulse control, and ethical reasoning. Researchers at the University of Zurich found that participants who slept fewer than five hours per night for one week showed a 24 percent decline in cooperative behavior during economic trust games. The findings suggest that chronic sleep loss may erode the social fabric in ways that extend far beyond individual fatigue."*

Based on the passage, which conclusion is best supported?

A) Sleep deprivation may have broader social consequences beyond personal tiredness.

B) Economic trust games are the most reliable measure of ethical reasoning.

C) People who sleep fewer than five hours always behave unethically.

D) The prefrontal cortex is the only brain region affected by lack of sleep.

Correct Answer: A) Sleep deprivation may have broader social consequences beyond personal tiredness.

Explanation: The correct answer is **A) Sleep deprivation may have broader social consequences beyond personal tiredness.**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Sleep deprivation may have broader social consequences beyond personal tiredness.', making it the best-supported inference over the other options.

QUESTION 5

A student is writing an argumentative essay claiming that public libraries should expand digital lending programs. Which of the following pieces of evidence would MOST effectively support this claim?

A) A survey showing that 62 percent of library patrons access materials primarily through e-books and audiobooks

B) A personal anecdote about a child who enjoyed visiting the library on weekends

C) A historical timeline of the Dewey Decimal System's development

D) A quotation from a novelist praising the aesthetic beauty of physical books

Correct Answer: A) A survey showing that 62 percent of library patrons access materials primarily through e-books and audiobooks

Explanation: The correct answer is **A) A survey showing that 62 percent of library patrons access materials primarily through e-books and audiobooks**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 6

Read the following excerpt:

> *"Marcus stared at the acceptance letter, its crisp edges trembling in his hands. He read it once, then again, then folded it carefully along its original creases and slid it back into the envelope. He placed the envelope on the kitchen table, centered it between the salt and pepper shakers, and walked to the window. Outside, the maple tree his father had planted the year Marcus was born swayed in a wind that carried the first chill of autumn."*

The detail about the maple tree most likely symbolizes —

A) the declining health of the natural environment

B) Marcus's resentment toward his father's absence

C) Marcus's desire to pursue a career in forestry

D) the changing seasons and the passage of time in Marcus's life

Correct Answer: D) the changing seasons and the passage of time in Marcus's life

Explanation: The correct answer is **D) the changing seasons and the passage of time in Marcus's life**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'the changing seasons and the passage of time in marcus's life'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 7

Read the following passage:

> *"The Great Pacific Garbage Patch is not, as many imagine, a solid floating island of trash. It is better understood as a diffuse cloud of microplastics — fragments smaller than five millimeters — suspended throughout the water column. Because these particles are often invisible to the naked eye and dispersed across an area twice the size of Texas, cleanup efforts face logistical challenges that traditional waste-collection methods cannot address."*

The author includes the comparison to the size of Texas primarily to —

A) argue that Texas produces the most ocean pollution

B) persuade readers to support a specific cleanup organization

C) illustrate the enormous scale of the contaminated area

D) explain why microplastics are invisible to the naked eye

Correct Answer: C) illustrate the enormous scale of the contaminated area

Explanation: The correct answer is **C) illustrate the enormous scale of the contaminated area**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 8

Read the following claim: "Mandatory financial literacy courses in high school would reduce personal debt among young adults." Which of the following, if true, would MOST weaken this argument?

A) Studies show that knowledge gained in financial literacy courses fades significantly within two years if not applied in real-world contexts.

B) Young adults carry an average of $28,000 in student loan debt.

C) Several states have already implemented financial literacy requirements.

D) Financial literacy textbooks are expensive and difficult to update.

Correct Answer: A) Studies show that knowledge gained in financial literacy courses fades significantly within two years if not applied in real-world contexts.

Explanation: The correct answer is **A) Studies show that knowledge gained in financial literacy courses fades significantly within two years if not applied in real-world contexts.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 9

Read the following sentence: "The diplomat's remarks were deliberately opaque, designed to satisfy reporters' questions without committing the administration to any concrete policy position." As used in this sentence, "opaque" most nearly means —

A) lengthy and overly detailed

B) hostile and confrontational

C) unclear and difficult to interpret

D) transparent and forthcoming

Correct Answer: C) unclear and difficult to interpret

Explanation: The correct answer is **C) unclear and difficult to interpret**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 10

Read the following passage:

> *"In 1928, Alexander Fleming returned from vacation to find mold growing on a petri dish of Staphylococcus bacteria. Rather than discarding the contaminated sample, he noticed that bacteria near the mold had died. This serendipitous observation led to the discovery of penicillin, which has since saved an estimated 200 million lives. Fleming himself often remarked that chance favors the prepared mind — he recognized the significance of what others might have thrown away."*

The author's primary purpose in this passage is to —

A) argue that all great discoveries are accidental

B) illustrate how observation and readiness can transform an accident into a breakthrough

C) criticize scientists who discard contaminated samples

D) provide a step-by-step explanation of how penicillin is manufactured

Correct Answer: B) illustrate how observation and readiness can transform an accident into a breakthrough

Explanation: The correct answer is **B) illustrate how observation and readiness can transform an accident into a breakthrough**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 11

Read the following passage:

> *"Coral reefs occupy less than one percent of the ocean floor yet support roughly twenty-five percent of all marine species. Rising ocean temperatures trigger coral bleaching, a stress response in which corals expel the symbiotic algae that provide them with both color and up to ninety percent of their energy. Without these algae, corals starve and, if conditions do not improve within weeks, die permanently. Scientists estimate that the world has already lost half of its coral cover since 1950."*

Which of the following best summarizes the central idea of the passage?

A) Symbiotic algae are harmful parasites that weaken coral structures.

B) Scientists have successfully restored most coral reefs damaged since 1950.

C) Coral reefs, despite their ecological importance, are rapidly declining due to rising ocean temperatures.

D) Coral reefs are the most beautiful feature of the ocean floor.

Correct Answer: C) Coral reefs, despite their ecological importance, are rapidly declining due to rising ocean temperatures.

Explanation: The correct answer is **C) Coral reefs, despite their ecological importance, are rapidly declining due to rising ocean temperatures.**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Coral reefs, despite their ecological importance, are rapidly declining due to rising ocean temperatures.' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 12

Read the following passage:

> *"She placed the violin beneath her chin the way one cradles a sleeping infant — gently, but with the absolute certainty that dropping it would shatter something irreplaceable. The first note rose from the strings and hung in the auditorium like smoke, curling into the silence until every breath in the room paused to listen."*

The figurative language in this passage primarily creates a mood of —

A) tension and fear

B) reverence and intimacy

C) confusion and disorientation

D) humor and lightheartedness

Correct Answer: B) reverence and intimacy

Explanation: The correct answer is **B) reverence and intimacy**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'reverence and intimacy' as the dominant tone.

QUESTION 13

A student is researching the effects of social media on adolescent mental health. Which source would provide the MOST credible and relevant evidence?

A) A peer-reviewed longitudinal study published in a psychology journal tracking 10,000 adolescents over five years

B) A blog post written by a parent describing their teenager's phone habits

C) A social media company's annual report highlighting increased user engagement

D) An opinion editorial by a technology CEO arguing that screen time concerns are exaggerated

Correct Answer: A) A peer-reviewed longitudinal study published in a psychology journal tracking 10,000 adolescents over five years

Explanation: The correct answer is **A) A peer-reviewed longitudinal study published in a psychology journal tracking 10,000 adolescents over five years**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 14

Read the following passage:

> *"Proponents of year-round schooling argue that eliminating the traditional summer break prevents the well-documented phenomenon of summer learning loss, in which students — particularly those from low-income families — lose up to two months of reading and math skills. Opponents counter that year-round schedules impose financial burdens on families who rely on summer employment for teenagers and increase operational costs for school districts that must maintain air-conditioned facilities throughout the hottest months."*

The opponents' counterargument primarily focuses on —

A) the economic consequences of year-round schooling for families and districts

B) disputing the existence of summer learning loss

C) evidence that students in year-round schools score lower on standardized tests

D) the psychological benefits of unstructured summer play for children

Correct Answer: A) the economic consequences of year-round schooling for families and districts

Explanation: The correct answer is **A) the economic consequences of year-round schooling for families and districts**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'the economic consequences of year-round schooling for families and districts' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 15

Read the following excerpt:

> *"I watched my brother cross the stage, his mortarboard tilting to one side, his grin wide enough to be seen from the back row. I clapped until my palms stung. He was the first in our family to earn a diploma, and though he would never say it, I knew the weight of that walk — every unpaid bill, every double shift, every evening spent at the kitchen table with a textbook propped against the sugar bowl."*

The narrator's point of view allows the reader to understand —

A) the brother's private thoughts about his academic struggles

B) an objective, unbiased account of the family's financial situation

C) only the external events of the graduation ceremony

D) the narrator's personal feelings and awareness of the family's sacrifices

Correct Answer: D) the narrator's personal feelings and awareness of the family's sacrifices

Explanation: The correct answer is **D) the narrator's personal feelings and awareness of the family's sacrifices**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option D. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 16

Read the following statements: (1) All employees who complete the safety certification receive a pay increase. (2) Daniela is an employee who recently received a pay increase. Based solely on these two statements, which conclusion is valid?

A) Daniela definitely completed the safety certification.

B) Daniela did not complete the safety certification.

C) All employees who receive a pay increase have completed the safety certification.

D) Daniela may or may not have completed the safety certification, since other factors could also lead to a pay increase.

Correct Answer: D) Daniela may or may not have completed the safety certification, since other factors could also lead to a pay increase.

Explanation: The correct answer is **D) Daniela may or may not have completed the safety certification, since other factors could also lead to a pay increase.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 17

Read the following passage:

> *"Every eight minutes, another American is added to the national organ transplant waiting list. Every day, seventeen people on that list die because a matching organ was not available in time. These are not abstract statistics; they are mothers, teachers, veterans, and children whose futures hinge on a decision most of us have never seriously considered — whether to register as an organ donor."*

The author uses specific statistics and categories of people primarily to —

A) create an emotional and logical appeal that motivates readers to act

B) compare organ donation rates across different countries

C) demonstrate expertise in medical research methodology

D) criticize hospitals for failing to perform transplant surgeries quickly enough

Correct Answer: A) create an emotional and logical appeal that motivates readers to act

Explanation: The correct answer is **A) create an emotional and logical appeal that motivates readers to act**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 18

Which of the following sentences is punctuated correctly?

A) The committee members who were appointed last March, have not yet submitted their report.

B) The committee members, who were appointed last March, have not yet submitted their report.

C) The committee members who were appointed last March have not yet, submitted their report.

D) The committee members, who were appointed last March have not yet submitted their report.

Correct Answer: B) The committee members, who were appointed last March, have not yet submitted their report.

Explanation: The correct answer is **B) The committee members, who were appointed last March, have not yet submitted their report.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

Select the sentence that demonstrates correct subject-verb agreement.

A) Neither the manager nor the employees was informed about the policy change.

B) The collection of rare stamps were donated to the museum last Tuesday.

C) The group of students has completed its community service requirement ahead of schedule.

D) Each of the candidates have prepared a detailed platform for the debate.

Correct Answer: C) The group of students has completed its community service requirement ahead of schedule.

Explanation: The correct answer is **C) The group of students has completed its community service requirement ahead of schedule.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option C is grammatically correct.

QUESTION 20

A student has written the following two sentences in an essay: "The city invested $4 million in expanding its public transit network. Ridership increased by 30 percent within eighteen months." Which transition word or phrase, inserted at the beginning of the second sentence, would MOST effectively show the relationship between these ideas?

A) As a result,

B) On the other hand,

C) Nevertheless,

D) Similarly,

Correct Answer: A) As a result,

Explanation: The correct answer is **A) As a result,**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option A best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 21

Which of the following sentences contains a clear and unambiguous pronoun reference?

A) When Sarah spoke to Maria, she seemed upset about the decision.

B) The hikers told the rangers that they needed better trail markers.

C) The company informed its shareholders that they would hold a vote on the merger.

D) After the coach reviewed the player's performance, he scheduled a meeting with the athletic director to discuss her progress.

Correct Answer: D) After the coach reviewed the player's performance, he scheduled a meeting with the athletic director to discuss her progress.

Explanation: The correct answer is **D) After the coach reviewed the player's performance, he scheduled a meeting with the athletic director to discuss her progress.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option D uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 22

A student is writing a paragraph arguing that municipalities should invest in protected bike lanes. Which sentence would BEST develop the student's argument?

A) Bicycles were first invented in the early nineteenth century and have evolved significantly since then.

B) Cities that installed protected bike lanes saw a 75 percent reduction in cyclist injuries and a 20 percent increase in bike commuters, according to a 2024 Department of Transportation study.

C) Many people enjoy cycling as a weekend hobby with friends and family.

D) Some drivers find bike lanes inconvenient because they reduce the number of available parking spaces.

Correct Answer: B) Cities that installed protected bike lanes saw a 75 percent reduction in cyclist injuries and a 20 percent increase in bike commuters, according to a 2024 Department of Transportation study.

Explanation: The correct answer is **B) Cities that installed protected bike lanes saw a 75 percent reduction in cyclist injuries and a 20 percent increase in bike commuters, according to a 2024 Department of Transportation study.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Cities that installed protected bike lanes saw a 75 percent reduction in cyclist injuries and a 20 percent increase in bike commuters, according to a 2024 Department of Transportation study.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 23

In which sentence is the comma used correctly?

A) The tall, brick building on Main Street was constructed in 1923.

B) She ordered a large, pepperoni pizza for the party.

C) His calm, methodical approach to problem-solving impressed the hiring panel.

D) The exhausted, frustrated, contestant finally answered the question.

Correct Answer: C) His calm, methodical approach to problem-solving impressed the hiring panel.

Explanation: The correct answer is **C) His calm, methodical approach to problem-solving impressed the hiring panel.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

QUESTION 24

A student is writing an essay about the benefits of bilingual education. The student's outline includes: I. Introduction, II. Cognitive benefits, III. Economic advantages, IV. Cultural awareness, V. Conclusion. The student has written the following sentence: "Research indicates that bilingual individuals earn, on average, 10 to 15 percent more than their monolingual peers over the course of a career." This sentence belongs in which section of the outline?

A) Section IV — Cultural awareness

B) Section II — Cognitive benefits

C) Section I — Introduction

D) Section III — Economic advantages

Correct Answer: D) Section III — Economic advantages

Explanation: The correct answer is **D) Section III — Economic advantages**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 25

Which of the following contains a sentence boundary error (run-on or comma splice)?

A) Because the roads were icy, school was canceled for the third consecutive day.

B) Although the experiment failed, the researchers gained valuable data for future trials.

C) The library closes at nine o'clock; however, the study rooms remain open until midnight.

D) The deadline was extended by one week, many students still submitted their papers late.

Correct Answer: D) The deadline was extended by one week, many students still submitted their papers late.

Explanation: The correct answer is **D) The deadline was extended by one week, many students still submitted their papers late.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option D as the only correctly punctuated version.

QUESTION 26

Which revision of the following sentence BEST eliminates wordiness while preserving the original meaning? Original: "Due to the fact that the rainfall amounts were in excess of what was expected, the river rose to a level that was higher than normal."

A) The river rose due to the fact that there was an excess of rainfall that was more than what people expected.

B) Due to the fact that it rained more, the river was higher than it usually is in most situations.

C) Because rainfall exceeded expectations, the river rose above its normal level.

D) Rainfall being in excess of expectations was the reason for the river rising to a higher level than normal.

Correct Answer: C) Because rainfall exceeded expectations, the river rose above its normal level.

Explanation: The correct answer is **C) Because rainfall exceeded expectations, the river rose above its normal level.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 27

Which sentence uses apostrophes correctly?

A) The dog wagged it's tail when it's owner returned from work.

B) The two sister's apartments are on the same floor of the building.

C) The children's toys were scattered across the neighbor's yard.

D) Its been three year's since the company changed it's logo.

Correct Answer: C) The children's toys were scattered across the neighbor's yard.

Explanation: The correct answer is **C) The children's toys were scattered across the neighbor's yard.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

QUESTION 28

A student is writing a formal research paper on renewable energy. Which sentence is MOST appropriate for the paper's tone and audience?

A) I personally think wind turbines look awesome on the horizon and we should build more of them everywhere.

B) According to the International Energy Agency, renewable sources accounted for nearly 30 percent of global electricity generation in 2023, marking a significant shift from fossil fuel dependence.

C) Everybody knows that solar panels are the obvious answer to all our energy problems.

D) Wind energy is super cool and way better than burning nasty fossil fuels.

Correct Answer: B) According to the International Energy Agency, renewable sources accounted for nearly 30 percent of global electricity generation in 2023, marking a significant shift from fossil fuel dependence.

Explanation: The correct answer is **B) According to the International Energy Agency, renewable sources accounted for nearly 30 percent of global electricity generation in 2023, marking a significant shift from fossil fuel dependence.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 29

Which sentence demonstrates correct parallel structure?

A) The internship requires applicants to write clearly, thinking critically, and collaborate effectively.

B) The internship requires applicants to write clearly, to think critically, and to collaborate effectively.

C) The internship requires applicants to write clearly, think critically, and to be effective collaborators.

D) The internship requires applicants writing clearly, to think critically, and effective collaboration.

Correct Answer: B) The internship requires applicants to write clearly, to think critically, and to collaborate effectively.

Explanation: The correct answer is **B) The internship requires applicants to write clearly, to think critically, and to collaborate effectively.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option B maintains consistent grammatical form across all listed or compared elements.

QUESTION 30

Which sentence correctly places its modifying phrase?

A) Having studied for three consecutive nights, the calculus exam felt manageable to Priya.

B) The teacher handed out exams to the students covered in red ink.

C) Sprinting across the finish line, the crowd erupted in applause for the runner.

D) After reviewing the blueprints carefully, the architect approved the revised design.

Correct Answer: D) After reviewing the blueprints carefully, the architect approved the revised design.

Explanation: The correct answer is **D) After reviewing the blueprints carefully, the architect approved the revised design.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 31

A bakery sells cupcakes in boxes of 6 for $14.50 and boxes of 12 for $26.00. What is the approximate savings per cupcake when purchasing the larger box instead of the smaller box?

A) $0.25

B) $0.59

C) $0.18

D) $0.42

Correct Answer: D) $0.42

Explanation: The correct answer is **D) $0.42**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 32

A car's fuel tank holds 15.5 gallons. If the car averages 28.4 miles per gallon in the city and 36.2 miles per gallon on the highway, how many MORE miles can the car travel on a full tank on the highway compared to the city? Round to the nearest whole number.

A) 135 miles

B) 111 miles

C) 121 miles

D) 98 miles

Correct Answer: C) 121 miles

Explanation: The correct answer is **C) 121 miles**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 121 miles.

QUESTION 33

Tomás earns a gross monthly salary of $4,200. After deductions of 6.2% for Social Security, 1.45% for Medicare, and 12% for federal income tax, what is his approximate net monthly pay?

A) $3,412.50

B) $3,386.70

C) $3,354.90

D) $3,375.30

Correct Answer: C) $3,354.90

Explanation: The correct answer is **C) $3,354.90**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 34

A store marks up the wholesale price of a jacket by 80% to set the retail price. During a clearance sale, the retail price is then discounted by 40%. What is the overall percent change from the wholesale price to the final sale price?

A) 40% increase

B) 20% decrease

C) 8% decrease

D) 8% increase

Correct Answer: D) 8% increase

Explanation: The correct answer is **D) 8% increase**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields 8% increase.

QUESTION 35

A recipe that serves 4 people calls for 2⅓ cups of flour. If a chef needs to prepare the recipe for 14 people, how many cups of flour are needed?

A) 7⅔ cups

B) 8⅙ cups

C) 8⅓ cups

D) 9⅓ cups

Correct Answer: B) 8⅙ cups

Explanation: The correct answer is **B) 8⅙ cups**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 36

Solve for x: 3(2x − 5) + 4 = 7x − 8

A) x = −1

B) x = 7

C) x = 3

D) x = −3

Correct Answer: D) x = −3

Explanation: The correct answer is **D) x = −3**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = −3.

QUESTION 37

A cell phone plan charges a flat fee of $35 per month plus $0.05 per text message sent. If Mia's bill for the month was $52.50, how many text messages did she send?

A) 325

B) 375

C) 300

D) 350

Correct Answer: D) 350

Explanation: The correct answer is **D) 350**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 38

Which of the following represents the solution set of the inequality 2(x + 3) ≥ 5x − 9?

A) x ≤ 5

B) x ≤ 3

C) x ≥ 5

D) x ≥ 3

Correct Answer: A) x ≤ 5

Explanation: The correct answer is **A) x ≤ 5**. Solving inequalities follows the same steps as equations, with one critical difference: multiplying or dividing by a negative number reverses the inequality sign. Isolating the variable in this inequality yields the solution set x ≤ 5.

QUESTION 39

If f(x) = $x^2 - 4x + 7$, what is the value of f(−2)?

A) 11

B) 15

C) 19

D) 3

Correct Answer: C) 19

Explanation: The correct answer is **C) 19**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 19.

QUESTION 40

A parking garage charges $8 for the first hour and $3 for each additional hour or fraction thereof. Which equation represents the total cost C, in dollars, for parking h hours, where h > 1?

A) C = 3 + 8(h − 1)

B) C = 11h

C) C = 8 + 3(h − 1)

D) C = 8 + 3h

Correct Answer: C) C = 8 + 3(h − 1)

Explanation: The correct answer is **C) C = 8 + 3(h − 1)**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to C = 8 + 3(h − 1).

QUESTION 41

A rectangular garden measures 18 feet by 24 feet. A diagonal path is laid from one corner to the opposite corner. What is the length of the path?

A) 30 feet

B) 32 feet

C) 36 feet

D) 28 feet

Correct Answer: A) 30 feet

Explanation: The correct answer is **A) 30 feet**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 42

A cylindrical water tank has a diameter of 10 feet and a height of 8 feet. What is the approximate volume of the tank in cubic feet? (Use π ≈ 3.14)

A) 502.4 ft³

B) 2,512.0 ft³

C) 628.0 ft³

D) 251.2 ft³

Correct Answer: C) 628.0 ft³

Explanation: The correct answer is **C) 628.0 ft³**. Volume formulas: rectangular prism = l×w×h; cylinder = πr²h; cone = ⅓πr²h; sphere = (4/3)πr³. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 628.0 ft³.

QUESTION 43

Triangle PQR has angles measuring 55°, 65°, and 60°. Triangle STU has two angles measuring 55° and 60°. Which of the following statements is true?

A) The triangles are similar because all three corresponding angles are equal.

B) The triangles are neither similar nor congruent.

C) The triangles cannot be compared without knowing the side lengths.

D) The triangles are congruent.

Correct Answer: A) The triangles are similar because all three corresponding angles are equal.

Explanation: The correct answer is **A) The triangles are similar because all three corresponding angles are equal.**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives The triangles are similar because all three corresponding angles are equal..

QUESTION 44

On a coordinate plane, point A is at (−3, 2) and point B is at (5, −4). What is the midpoint of segment AB?

A) (1, −1)

B) (1, 1)

C) (4, −3)

D) (2, −2)

Correct Answer: A) (1, −1)

Explanation: The correct answer is **A) (1, −1)**. The midpoint formula is M = ((x₁+x₂)/2, (y₁+y₂)/2); the distance formula is d = sqrt((x₂-x₁)² + (y₂-y₁)²). Substituting the given coordinates into the appropriate formula produces (1, −1).

QUESTION 45

A scale drawing of a building uses a scale of 1 inch = 12 feet. If the building's actual height is 78 feet, what is the height of the building on the drawing?

A) 5.5 inches

B) 6.5 inches

C) 7.0 inches

D) 6.0 inches

Correct Answer: B) 6.5 inches

Explanation: The correct answer is **B) 6.5 inches**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 46

A bag contains 5 red marbles, 8 blue marbles, and 7 green marbles. If one marble is drawn at random, what is the probability that it is NOT blue?

A) 7/20

B) 3/5

C) 2/5

D) 2/3

Correct Answer: B) 3/5

Explanation: The correct answer is **B) 3/5**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 3/5.

QUESTION 47

The following data set represents quiz scores for a class of 9 students: 72, 75, 78, 82, 85, 85, 88, 91, 94. What is the interquartile range (IQR) of the scores?

A) 22

B) 13

C) 16

D) 10

Correct Answer: B) 13

Explanation: The correct answer is **B) 13**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 13.

QUESTION 48

A company surveyed 400 customers about product satisfaction. The results showed 68% were satisfied, with a margin of error of ±4%. Which of the following is the best interpretation of this result?

A) Between 64% and 72% of the customer population is likely satisfied.

B) At least 72% of customers are satisfied with the product.

C) The survey is unreliable because the margin of error is too large.

D) Exactly 272 customers in the entire population are satisfied.

Correct Answer: A) Between 64% and 72% of the customer population is likely satisfied.

Explanation: The correct answer is **A) Between 64% and 72% of the customer population is likely satisfied.**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to Between 64% and 72% of the customer population is likely satisfied..

QUESTION 49

A standard six-sided die is rolled twice. What is the probability that the sum of the two rolls is exactly 9?

A) 1/9

B) 1/12

C) 1/6

D) 5/36

Correct Answer: A) 1/9

Explanation: The correct answer is **A) 1/9**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1/9.

QUESTION 50

A data set has a mean of 50 and a standard deviation of 6. According to the empirical rule (68-95-99.7 rule), approximately what percentage of data values fall between 38 and 62?

A) 99.7%

B) 84%

C) 68%

D) 95%

Correct Answer: D) 95%

Explanation: The correct answer is **D) 95%**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 95%.

FULL CRC EXAM

TSIA2 Simulated Exam 2 — 2026

50 Questions — Answer Key with Explanations

QUESTION 1

Read the following passage:

> *"Marguerite pressed her forehead against the cold glass of the bus window, watching the city dissolve into farmland. She had not spoken to her mother in three years, and each mile closer to the old house made the silence between them feel heavier, like soil piling on a coffin. The fields stretched flat and indifferent, and she thought about how land never apologizes for what it buries."*

The simile "like soil piling on a coffin" primarily conveys which of the following?

A) Marguerite's fear of her mother's declining health

B) The growing emotional weight of the unresolved estrangement

C) The physical discomfort of the long bus ride

D) The monotony of the rural landscape

Correct Answer: A) Marguerite's fear of her mother's declining health

Explanation: The correct answer is **A) Marguerite's fear of her mother's declining health**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'marguerite's fear of her mother's declining health'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 2

Based on the passage in Question 1, the phrase "land never apologizes for what it buries" most likely suggests that:

A) The land has literally buried something important to Marguerite

B) Nature is indifferent to human suffering and unresolved conflict

C) Farming communities lack emotional awareness

D) Marguerite blames the rural setting for her family problems

Correct Answer: A) The land has literally buried something important to Marguerite

Explanation: The correct answer is **A) The land has literally buried something important to Marguerite**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'The land has literally buried something important to Marguerite', making it the best-supported inference over the other options.

QUESTION 3

Read the following passage:

> *"Urban heat islands occur when cities replace natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat. A 2024 study from Arizona State University found that neighborhoods with less than 10% tree canopy coverage experienced average summer temperatures 8 degrees Fahrenheit higher than neighborhoods with 30% or more coverage. The researchers concluded that strategic tree planting could reduce cooling costs by up to 25% in affected areas."*

What is the primary purpose of the cited study in this passage?

A) To argue that Arizona is the hottest state in the country

B) To provide quantifiable evidence supporting the impact of tree coverage on urban temperatures

C) To criticize city planners for ignoring environmental concerns

D) To compare rural and urban lifestyles

Correct Answer: A) To argue that Arizona is the hottest state in the country

Explanation: The correct answer is **A) To argue that Arizona is the hottest state in the country**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 4

Based on the passage in Question 3, which conclusion is best supported by the information provided?

A) Increasing tree canopy in cities could yield both environmental and economic benefits

B) Tree planting alone can eliminate urban heat islands entirely

C) All cities should mandate 30% tree coverage by law

D) Rural areas never experience heat-related problems

Correct Answer: A) Increasing tree canopy in cities could yield both environmental and economic benefits

Explanation: The correct answer is **A) Increasing tree canopy in cities could yield both environmental and economic benefits**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Increasing tree canopy in cities could yield both environmental and economic benefits' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 5

Read the following passage:

> *"Opponents of year-round schooling argue that students need long summer breaks for rest and enrichment activities. However, research consistently shows that students from low-income families experience significant learning loss during extended breaks, often falling two to three months behind their peers. Year-round schooling with shorter, more frequent breaks would maintain academic momentum while still providing adequate rest. Critics who prioritize tradition over equity are simply choosing comfort over the well-being of the most vulnerable students."*

Which of the following best describes a weakness in this argument?

A) The final sentence uses an ad hominem attack that undermines the otherwise evidence-based reasoning

B) The argument supports year-round schooling with no qualifications whatsoever

C) The author fails to mention any research at all

D) The passage never addresses the opposing viewpoint

Correct Answer: A) The final sentence uses an ad hominem attack that undermines the otherwise evidence-based reasoning

Explanation: The correct answer is **A) The final sentence uses an ad hominem attack that undermines the otherwise evidence-based reasoning**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'The final sentence uses an ad hominem attack that undermines the otherwise evidence-based reasoning', making it the best-supported inference over the other options.

QUESTION 6

In the passage from Question 5, the phrase "academic momentum" most nearly means:

A) Students' enthusiasm for attending school each day

B) The speed at which teachers cover curriculum material

C) The competitive ranking between different schools in a district

D) The continuous progress students make when learning is not interrupted by long gaps

Correct Answer: A) Students' enthusiasm for attending school each day

Explanation: The correct answer is **A) Students' enthusiasm for attending school each day**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 7

Read the following poem excerpt: "I have mapped every crack in this ceiling, / know each water stain by its country shape-- / that one, Brazil; this one, a broken wing. / Insomnia makes cartographers of us all, / charting territories we never chose to explore." The speaker's comparison of water stains to maps and countries primarily serves to:

A) Suggest that the ceiling is in poor condition and needs repair

B) Demonstrate the speaker's creativity and artistic talent

C) Illustrate how sleeplessness forces the mind into restless pattern-seeking

D) Show that the speaker is interested in world geography

Correct Answer: A) Suggest that the ceiling is in poor condition and needs repair

Explanation: The correct answer is **A) Suggest that the ceiling is in poor condition and needs repair**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to Suggest that the ceiling is in poor condition and needs repair.

QUESTION 8

Read the following passage:

> *"Coral reefs support approximately 25% of all marine species despite covering less than 1% of the ocean floor. When water temperatures rise even 1-2 degrees Celsius above normal summer maximums, corals expel the symbiotic algae living in their tissues--a process called bleaching. Without these algae, corals lose their primary food source and, if conditions persist for more than eight weeks, typically die. Between 2014 and 2017, consecutive global bleaching events affected over 70% of the world's reef systems."*

Which organizational pattern does this passage primarily use?

A) Cause and effect

B) Problem and solution

C) Chronological order only

D) Compare and contrast

Correct Answer: A) Cause and effect

Explanation: The correct answer is **A) Cause and effect**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Cause and effect' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 9

Based on the passage in Question 8, the word "symbiotic" most likely describes a relationship that is:

A) Competitive between two species for the same resources

B) Temporary and seasonal in nature

C) Mutually beneficial to both organisms involved

D) Harmful to one organism while benefiting the other

Correct Answer: A) Competitive between two species for the same resources

Explanation: The correct answer is **A) Competitive between two species for the same resources**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Competitive between two species for the same resources', making it the best-supported inference over the other options.

QUESTION 10

Read the following passage:

> *"Deshawn's grandmother kept a garden that defied the concrete logic of their block. Tomatoes climbed a chain-link fence meant to keep people out. Sunflowers grew through cracks in the sidewalk where the city had given up on repairs. Every Saturday, she would hand a paper bag of vegetables over the fence to Mrs. Chen, who would return it Monday filled with dumplings. No words were necessary; the food said what language couldn't."*

The detail about the exchange between the grandmother and Mrs. Chen primarily illustrates:

A) That the neighborhood lacks adequate grocery stores

B) How food can serve as a universal language that transcends cultural barriers

C) Mrs. Chen's inability to communicate in English

D) The grandmother's desire to profit from her garden produce

Correct Answer: A) That the neighborhood lacks adequate grocery stores

Explanation: The correct answer is **A) That the neighborhood lacks adequate grocery stores**. When determining word meaning from context, look at the surrounding sentences for synonyms, antonyms, or examples that clarify the word's usage. The context in this passage indicates the word means 'that the neighborhood lacks adequate grocery stores', which fits the logical flow of the passage.

QUESTION 11

A student writes: "Social media should be banned for all users under 18 because a 2023 survey found that 60% of teenagers reported feeling anxious after using social media platforms." Which of the following best identifies the logical flaw in this argument?

A) The student does not define what counts as social media

B) The student should have cited at least three different surveys

C) Correlation between social media use and anxiety does not establish that social media caused the anxiety

D) The survey sample size is not mentioned in the statement

Correct Answer: A) The student does not define what counts as social media

Explanation: The correct answer is **A) The student does not define what counts as social media**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to The student does not define what counts as social media.

QUESTION 12

Read the following passage:

> *"The placebo effect has long been dismissed as mere psychological trickery, but neuroscience research reveals it involves measurable biological changes. When patients believe they are receiving treatment, their brains release endorphins and dopamine--the same chemicals triggered by actual medications. A 2022 Harvard study demonstrated that placebo treatments reduced chronic pain by 30% in participants who were openly told they were receiving placebos. This finding challenges the assumption that deception is necessary for placebos to work."*

The Harvard study mentioned in the passage is significant primarily because it:

A) Suggests that all medical treatments rely on the placebo effect

B) Demonstrates that placebos can be effective even without patient deception

C) Shows that chronic pain is entirely psychological in origin

D) Proves that placebos are more effective than real medications

Correct Answer: A) Suggests that all medical treatments rely on the placebo effect

Explanation: The correct answer is **A) Suggests that all medical treatments rely on the placebo effect**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 13

Read the following passage:

> *"The library closed at nine, but Marcus stayed until the security guard's flashlight found him between the shelves. He was not hiding. He simply could not bring himself to return to the apartment where silence had a texture--thick and suffocating, like wool pulled over his mouth. Here, even closed books whispered possibilities."*

The contrast between the apartment and the library reveals that Marcus:

A) Finds intellectual and emotional refuge in the library that his home cannot provide

B) Is deliberately hiding from someone who lives at his apartment

C) Is afraid of being alone in the dark at his apartment

D) Prefers reading books to watching television programs

Correct Answer: A) Finds intellectual and emotional refuge in the library that his home cannot provide

Explanation: The correct answer is **A) Finds intellectual and emotional refuge in the library that his home cannot provide**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Finds intellectual and emotional refuge in the library that his home cannot provide', making it the best-supported inference over the other options.

QUESTION 14

Read the following passage:

> *"Every year, Americans throw away 80 billion pounds of food--enough to fill 730 football stadiums. Meanwhile, 34 million Americans face food insecurity. The disconnect is not logistical; it is moral. We have built a system that would rather let produce rot in landfills than redirect it to families who cannot afford dinner."*

The author uses the football stadium comparison primarily to:

A) Make the abstract statistic of food waste tangible and emotionally impactful for readers

B) Suggest that sports stadiums should be converted into food storage facilities

C) Appeal specifically to sports fans who might not otherwise care about food waste

D) Demonstrate personal expertise in both environmental science and sports

Correct Answer: A) Make the abstract statistic of food waste tangible and emotionally impactful for readers

Explanation: The correct answer is **A) Make the abstract statistic of food waste tangible and emotionally impactful for readers**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 15

In the passage from Question 14, the author's use of the word "moral" rather than "logistical" to describe the disconnect serves to:

A) Argue that morality is more important than efficiency in all situations

B) Suggest that logistics professionals are inherently unethical people

C) Imply that food distribution technology does not currently exist

D) Shift responsibility from practical limitations to ethical failures in the food system

Correct Answer: A) Argue that morality is more important than efficiency in all situations

Explanation: The correct answer is **A) Argue that morality is more important than efficiency in all situations**. When determining word meaning from context, look at the surrounding sentences for synonyms, antonyms, or examples that clarify the word's usage. The context in this passage indicates the word means 'argue that morality is more important than efficiency in all situations', which fits the logical flow of the passage.

QUESTION 16

Read the following passage:

> *"When the factory closed, the town did not die all at once. First, the diner reduced its hours. Then the hardware store stopped restocking the back shelves. The high school canceled the spring musical. Each small surrender was barely noticeable on its own, but together they told the story of a community slowly exhaling its last breath."*

The author structures the passage as a series of small events primarily to:

A) List all of the businesses that were directly affected by the closure

B) Argue that the factory owners should not have closed the plant

C) Demonstrate that small towns are inherently less resilient than cities

D) Show how economic decline manifests gradually through accumulated small losses

Correct Answer: A) List all of the businesses that were directly affected by the closure

Explanation: The correct answer is **A) List all of the businesses that were directly affected by the closure**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 17

A student is writing a research paper about the benefits of bilingual education. Which of the following sources would provide the MOST credible evidence for the claim that bilingualism improves cognitive flexibility?

A) A peer-reviewed longitudinal study from a university neuroscience department tracking cognitive outcomes over ten years

B) A social media post from a bilingual parent describing their child's academic success

C) A popular magazine article titled Ten Reasons Your Kid Should Learn Spanish

D) A blog entry from a language learning app company promoting their subscription product

Correct Answer: A) A peer-reviewed longitudinal study from a university neuroscience department tracking cognitive outcomes over ten years

Explanation: The correct answer is **A) A peer-reviewed longitudinal study from a university neuroscience department tracking cognitive outcomes over ten years**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 18

A student writes the following paragraph in an essay about renewable energy: "Solar energy is becoming increasingly affordable. (1) The cost of solar panels has dropped significantly. (2) Many homeowners are now choosing to install solar systems. (3) Government incentives have also made solar more accessible. (4) My neighbor installed solar panels last summer." Which sentence should be revised to include more specific supporting evidence?

A) Sentence 4, because it should describe the neighbor's panel specifications in detail

B) Sentence 1, because it makes a claim about cost reduction without providing specific data or a timeframe

C) Sentence 3, because it should list every single government incentive program available

D) Sentence 2, because it needs to name specific homeowners by name

Correct Answer: A) Sentence 4, because it should describe the neighbor's panel specifications in detail

Explanation: The correct answer is **A) Sentence 4, because it should describe the neighbor's panel specifications in detail**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Sentence 4, because it should describe the neighbor's panel specifications in detail' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 19

A student is organizing an essay about the causes and effects of sleep deprivation. Which of the following would be the most effective topic sentence for a body paragraph focused on the academic consequences?

A) Sleep is important for everyone, especially students who have a lot of schoolwork to do.

B) There are several effects of not getting enough sleep, and some of them are related to school.

C) Sleep deprivation significantly impairs students' academic performance by reducing concentration, memory consolidation, and critical thinking ability.

D) Many students stay up late studying, which is ironic because it actually hurts their grades.

Correct Answer: A) Sleep is important for everyone, especially students who have a lot of schoolwork to do.

Explanation: The correct answer is **A) Sleep is important for everyone, especially students who have a lot of schoolwork to do.**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 20

Read the following sentences from a student essay: "The city council approved a $2 million budget for public park improvements. _____, local residents expressed concern that the money would be better spent on road repairs and public transportation." Which transition best fills the blank?

A) However

B) As a result

C) Furthermore

D) Similarly

Correct Answer: A) However

Explanation: The correct answer is **A) However**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option A best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 21

Select the sentence that demonstrates correct subject-verb agreement.

A) Neither the principal nor the teachers was informed about the schedule change before the announcement.

B) Neither the principal nor the teachers have been being informed about the schedule change beforehand.

C) Neither the principal nor the teachers is being informed about the schedule change before the announcement.

D) Neither the principal nor the teachers were informed about the schedule change before the announcement.

Correct Answer: A) Neither the principal nor the teachers was informed about the schedule change before the announcement.

Explanation: The correct answer is **A) Neither the principal nor the teachers was informed about the schedule change before the announcement.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option A is grammatically correct.

QUESTION 22

Which sentence uses semicolons correctly?

A) The experiment yielded three key findings: reaction times decreased by 15%, error rates dropped by 22%; and participant confidence increased.

B) The experiment yielded three key findings: reaction times decreased by 15%; error rates dropped by 22%; and participant confidence increased significantly.

C) The experiment yielded three; key findings: reaction times decreased by 15%, error rates dropped by 22%, and participant confidence increased.

D) The experiment yielded three key findings; reaction times decreased by 15%, error rates dropped by 22%, and participant confidence increased.

Correct Answer: A) The experiment yielded three key findings: reaction times decreased by 15%, error rates dropped by 22%; and participant confidence increased.

Explanation: The correct answer is **A) The experiment yielded three key findings: reaction times decreased by 15%, error rates dropped by 22%; and participant confidence increased.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 23

Which of the following is a complete, correctly constructed sentence?

A) Although the museum had been renovated extensively and attendance continued to decline throughout the year.

B) The museum had been renovated extensively, attendance continued to decline throughout the following year.

C) Although the museum had been renovated extensively, attendance continued to decline throughout the following year.

D) Although the museum had been renovated extensively. Attendance continued to decline throughout the following year.

Correct Answer: A) Although the museum had been renovated extensively and attendance continued to decline throughout the year.

Explanation: The correct answer is **A) Although the museum had been renovated extensively and attendance continued to decline throughout the year.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 24

A student is writing a formal analytical essay about economic inequality. Which sentence uses the most appropriate academic tone?

A) Rich people keep getting richer while everyone else is basically stuck, which is totally unfair and needs to stop right now.

B) It is a well-known fact that everybody already knows about the gap between rich and poor people in this country.

C) The economic situation in America is really bad because some people have way too much money and others just do not have enough.

D) Income disparity in the United States has widened considerably over the past four decades, with the top 1% capturing a disproportionate share of economic growth.

Correct Answer: A) Rich people keep getting richer while everyone else is basically stuck, which is totally unfair and needs to stop right now.

Explanation: The correct answer is **A) Rich people keep getting richer while everyone else is basically stuck, which is totally unfair and needs to stop right now.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 25

Which sentence contains a clear and unambiguous pronoun reference?

A) Dr. Patel told Dr. Rivera that she needed to substantially revise her research methodology before publication.

B) The researchers shared the data with the administrators, and they were genuinely surprised by the unexpected results.

C) When Dr. Patel presented the findings to the board, they emphasized the urgent need for additional research funding.

D) When Dr. Patel presented the findings to the board, she emphasized the urgent need for additional research funding.

Correct Answer: A) Dr. Patel told Dr. Rivera that she needed to substantially revise her research methodology before publication.

Explanation: The correct answer is **A) Dr. Patel told Dr. Rivera that she needed to substantially revise her research methodology before publication.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option A uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 26

Which sentence demonstrates correct parallel structure?

A) The internship program requires candidates to submit a resume, completing an interview, and the provision of three professional references.

B) The internship program requires candidates to submit a resume, they must complete an interview, and three professional references should be provided.

C) The internship program requires candidates to submit a resume, complete an interview, and provide three professional references.

D) The internship program requires candidates submitting a resume, to complete an interview, and providing three professional references.

Correct Answer: A) The internship program requires candidates to submit a resume, completing an interview, and the provision of three professional references.

Explanation: The correct answer is **A) The internship program requires candidates to submit a resume, completing an interview, and the provision of three professional references.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option A maintains consistent grammatical form across all listed or compared elements.

QUESTION 27

A student is writing an argumentative essay in favor of requiring financial literacy courses in high school. Which of the following would be the most effective way to address a counterargument?

A) Critics of this idea probably do not understand how difficult it is to manage personal money without proper formal education.

B) Some people think financial literacy is not important, but I personally think it is very important, so they should definitely teach it.

C) Some educators argue that the curriculum is already overcrowded; however, financial literacy could be integrated into existing math courses rather than requiring a separate class, minimizing scheduling disruptions while preparing students for real-world financial decisions.

D) People who disagree with financial literacy courses are simply wrong because everyone obviously needs to know about money.

Correct Answer: A) Critics of this idea probably do not understand how difficult it is to manage personal money without proper formal education.

Explanation: The correct answer is **A) Critics of this idea probably do not understand how difficult it is to manage personal money without proper formal education.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 28

Which sentence correctly places its modifying phrase?

A) Exhausted after the twelve-hour shift, the break room couch was where the nurse finally collapsed.

B) Exhausted after the twelve-hour shift, the nurse collapsed onto the break room couch.

C) After the twelve-hour shift being exhausted, onto the break room couch the nurse collapsed.

D) The nurse collapsed onto the break room couch exhausted after the twelve-hour shift that had ended at last.

Correct Answer: A) Exhausted after the twelve-hour shift, the break room couch was where the nurse finally collapsed.

Explanation: The correct answer is **A) Exhausted after the twelve-hour shift, the break room couch was where the nurse finally collapsed.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 29

A student has written an essay analyzing how social media has changed political campaigns. Which of the following would be the most effective concluding sentence?

A) Social media and politics are connected, and this essay has shown several different examples of that connection.

B) As digital platforms continue to evolve, the relationship between social media and political engagement will demand ongoing scrutiny from voters, regulators, and candidates alike.

C) That is why social media is so important for politics today and will probably keep being important in the future.

D) In conclusion, social media has changed political campaigns in many ways, as I have discussed above in this essay.

Correct Answer: A) Social media and politics are connected, and this essay has shown several different examples of that connection.

Explanation: The correct answer is **A) Social media and politics are connected, and this essay has shown several different examples of that connection.**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option A best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 30

Select the sentence that uses all words correctly.

A) The board's principal concern was whether the new policy would have a positive affect on employee morale.

B) The board's principle concern was whether the new policy would have a positive effect on employee moral.

C) The board's principle concern was whether the new policy would have a positive affect on employee moral.

D) The board's principal concern was whether the new policy would have a positive effect on employee morale.

Correct Answer: A) The board's principal concern was whether the new policy would have a positive affect on employee morale.

Explanation: The correct answer is **A) The board's principal concern was whether the new policy would have a positive affect on employee morale.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 31

A car's fuel efficiency is rated at 32 miles per gallon. If gasoline costs $3.85 per gallon, how much will it cost in fuel to drive 480 miles? Round to the nearest cent.

A) $61.60

B) $52.40

C) $64.00

D) $57.75

Correct Answer: A) $61.60

Explanation: The correct answer is **A) $61.60**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to $61.60.

QUESTION 32

A recipe calls for 2 and 3/4 cups of flour to make 18 cookies. If you want to make 48 cookies, how many cups of flour do you need?

A) 7 and 1/2

B) 6 and 7/8

C) 7 and 1/3

D) 8 and 1/4

Correct Answer: A) 7 and 1/2

Explanation: The correct answer is **A) 7 and 1/2**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 33

A store advertises a jacket originally priced at $120 with a 30% discount. A member loyalty card provides an additional 10% off the discounted price. What is the final price before tax?

A) $72.00

B) $84.00

C) $75.60

D) $78.00

Correct Answer: A) $72.00

Explanation: The correct answer is **A) $72.00**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 34

An investment of $5,000 earns simple interest at a rate of 4.5% per year. What is the total value of the investment after 3 years?

A) $5,700

B) $5,725

C) $5,627

D) $5,675

Correct Answer: A) $5,700

Explanation: The correct answer is **A) $5,700**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to $5,700.

QUESTION 35

A water tank contains 450 gallons and is draining at a rate of 12.5 gallons per minute. At the same time, water is being added at a rate of 3.5 gallons per minute. How many minutes will it take for the tank to be empty?

A) 55 minutes

B) 50 minutes

C) 36 minutes

D) 45 minutes

Correct Answer: A) 55 minutes

Explanation: The correct answer is **A) 55 minutes**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 55 minutes.

QUESTION 36

Solve for x: 3(2x - 5) + 4 = 7x - 8

A) x = -7

B) x = 7

C) x = 3

D) x = -3

Correct Answer: A) x = -7

Explanation: The correct answer is **A) x = -7**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = -7.

QUESTION 37

Which of the following represents the solution set for the inequality: -2(x + 4) >= 3x + 7?

A) x <= 3

B) x >= 3

C) x >= -3

D) x <= -3

Correct Answer: A) x <= 3

Explanation: The correct answer is **A) x <= 3**. Solving inequalities follows the same steps as equations, with one critical difference: multiplying or dividing by a negative number reverses the inequality sign. Isolating the variable in this inequality yields the solution set x <= 3.

QUESTION 38

A phone plan charges a $25 monthly fee plus $0.06 per text message. Another plan charges a $15 monthly fee plus $0.10 per text message. At how many text messages per month do the two plans cost the same?

A) 250 messages

B) 300 messages

C) 200 messages

D) 150 messages

Correct Answer: A) 250 messages

Explanation: The correct answer is **A) 250 messages**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 39

Factor completely: 2x^2 + 11x + 15

A) (2x + 3)(x + 5)

B) (2x + 15)(x + 1)

C) (2x + 5)(x + 3)

D) 2(x + 5)(x + 3)

Correct Answer: A) (2x + 3)(x + 5)

Explanation: The correct answer is **A) (2x + 3)(x + 5)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields (2x + 3)(x + 5).

QUESTION 40

If f(x) = 3x^2 - 2x + 7, what is the value of f(-2)?

A) 15

B) 19

C) 23

D) 27

Correct Answer: A) 15

Explanation: The correct answer is **A) 15**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 15.

QUESTION 41

A cylindrical water tower has a radius of 8 feet and a height of 25 feet. What is the approximate volume of the water tower? (Use pi = 3.14)

A) 5,024 cubic feet

B) 4,800 cubic feet

C) 6,280 cubic feet

D) 5,200 cubic feet

Correct Answer: A) 5,024 cubic feet

Explanation: The correct answer is **A) 5,024 cubic feet**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 5,024 cubic feet.

QUESTION 42

Two similar triangles have a scale factor of 3:5. If the area of the smaller triangle is 36 square centimeters, what is the area of the larger triangle?

A) 60 square centimeters

B) 108 square centimeters

C) 100 square centimeters

D) 90 square centimeters

Correct Answer: A) 60 square centimeters

Explanation: The correct answer is **A) 60 square centimeters**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b^2-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 60 square centimeters.

QUESTION 43

A right triangle has legs measuring 9 cm and 12 cm. What is the length of the hypotenuse?

A) 15 cm

B) 14 cm

C) 16 cm

D) 13 cm

Correct Answer: A) 15 cm

Explanation: The correct answer is **A) 15 cm**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 15 cm.

QUESTION 44

A rectangular park measures 40 meters by 30 meters. A jogging path runs diagonally from one corner to the opposite corner. How long is the diagonal path?

A) 50 meters

B) 55 meters

C) 45 meters

D) 35 meters

Correct Answer: A) 50 meters

Explanation: The correct answer is **A) 50 meters**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 45

Point A is located at (-3, 4) and Point B is located at (5, -2) on a coordinate plane. What is the distance between the two points?

A) 12

B) 10

C) 8

D) 9

Correct Answer: A) 12

Explanation: The correct answer is **A) 12**. The midpoint formula is $M = ((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is $d = \text{sqrt}((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces 12.

QUESTION 46

A class of 30 students took a quiz. The scores were: 15 students scored 80, 10 students scored 90, and 5 students scored 100. What is the mean score for the class?

A) 85

B) 86.67

C) 88

D) 87.5

Correct Answer: A) 85

Explanation: The correct answer is **A) 85**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 85.

QUESTION 47

A bag contains 4 red marbles, 6 blue marbles, and 5 green marbles. If one marble is drawn at random and NOT replaced, and then a second marble is drawn, what is the probability that both marbles are blue?

A) 2/15

B) 1/7

C) 1/5

D) 6/25

Correct Answer: A) 2/15

Explanation: The correct answer is **A) 2/15**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 2/15.

QUESTION 48

A dataset has the following values: 10, 14, 17, 18, 20, 23, 26, 29, 32, 45. What is the interquartile range (IQR)?

A) 12

B) 14

C) 15

D) 10

Correct Answer: A) 12

Explanation: The correct answer is **A) 12**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 12.

QUESTION 49

In a standard deck of 52 playing cards, what is the probability of drawing either a heart or a face card (jack, queen, or king)?

A) 22/52

B) 18/52

C) 25/52

D) 15/52

Correct Answer: A) 22/52

Explanation: The correct answer is **A) 22/52**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 22/52.

QUESTION 50

A survey of 200 college students found that 120 prefer streaming music, 60 prefer radio, and 20 have no preference. A pie chart is created to display these results. What is the central angle for the streaming music section?

A) 240 degrees

B) 200 degrees

C) 180 degrees

D) 216 degrees

Correct Answer: A) 240 degrees

Explanation: The correct answer is **A) 240 degrees**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 240 degrees.

FULL CRC EXAM

TSIA2 Simulated Exam 3 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

The decline of coral reefs has accelerated dramatically in recent decades. Rising ocean temperatures cause coral bleaching, a process in which corals expel the symbiotic algae that provide them with nutrients and color. Without these algae, corals turn white and become vulnerable to disease. While some reefs have shown resilience, recovering after mild bleaching events, scientists warn that repeated exposure to elevated temperatures can permanently damage reef ecosystems. Conservation efforts now focus on identifying heat-resistant coral strains that might be cultivated and transplanted to degraded areas. What is the primary purpose of this passage?

A) 1) To argue that coral reefs are beyond saving

B) 2) To explain a threat to coral reefs and describe conservation responses

C) 3) To compare different species of coral found in tropical oceans

D) 4) To criticize governments for failing to address climate change

Correct Answer: B) 2) To explain a threat to coral reefs and describe conservation responses

Explanation: The correct answer is **B) 2) To explain a threat to coral reefs and describe conservation responses**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 2

In 1848, the Seneca Falls Convention marked a turning point in the American women's suffrage movement. Organized by Elizabeth Cady Stanton and Lucretia Mott, the convention produced the Declaration of Sentiments, which deliberately echoed the language of the Declaration of Independence to assert that 'all men and women are created equal.' Although the resolution calling for women's voting rights passed by only a narrow margin, it planted the seed for a movement that would persist for over seventy years before achieving its goal with the Nineteenth Amendment in 1920. The author's mention that the Declaration of Sentiments 'deliberately echoed' the Declaration of Independence most likely serves to —

A) 1) show that the suffragists lacked original ideas

B) 2) emphasize the founders' support for women's rights

C) 3) highlight the strategic use of familiar national ideals to legitimize the cause

D) 4) prove that the Constitution already guaranteed women's suffrage

Correct Answer: C) 3) highlight the strategic use of familiar national ideals to legitimize the cause

Explanation: The correct answer is **C) 3) highlight the strategic use of familiar national ideals to legitimize the cause**. Text structure describes how a writer arranges information — common patterns include cause/effect, compare/contrast, problem/solution, and chronological order. The sequence of ideas and transitional language in this passage most clearly reflects '3) highlight the strategic use of familiar national ideals to legitimize the cause'.

QUESTION 3

Urban foraging — the practice of gathering wild edible plants in city environments — has gained popularity among food enthusiasts and sustainability advocates. Proponents argue that foraging reconnects people with their food sources and reduces reliance on industrial agriculture. Critics, however, raise concerns about contamination from urban pollutants such as heavy metals in soil near roadways. Additionally, over-harvesting in public parks can deplete plant populations that support urban wildlife. Balancing these competing interests requires clear municipal guidelines and public education about safe, sustainable practices. Which statement best captures the author's perspective on urban foraging?

A) 1) It is an irresponsible trend that should be banned in all cities

B) 2) It offers benefits but requires regulation to address legitimate risks

C) 3) It is the most effective solution to food insecurity in urban areas

D) 4) It has no meaningful impact on either sustainability or public health

Correct Answer: B) 2) It offers benefits but requires regulation to address legitimate risks

Explanation: The correct answer is **B) 2) It offers benefits but requires regulation to address legitimate risks**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. '2) It offers benefits but requires regulation to address legitimate risks' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 4

The mimicry strategies of the zone-tailed hawk illustrate a remarkable evolutionary adaptation. This raptor closely resembles the turkey vulture in both plumage and flight pattern, soaring with its wings held in a similar dihedral position. Because turkey vultures feed exclusively on carrion and pose no threat to live prey, small animals largely ignore them. The zone-tailed hawk exploits this complacency, blending into groups of vultures before suddenly diving to capture unsuspecting rodents and lizards. Researchers consider this one of the most sophisticated examples of aggressive mimicry among birds. Based on the passage, small animals ignore turkey vultures because —

A) 1) turkey vultures are too large to be considered predators

B) 2) turkey vultures only eat dead animals and are not a danger to live prey

C) 3) small animals cannot distinguish between different bird species

D) 4) turkey vultures and zone-tailed hawks share the same habitat

Correct Answer: B) 2) turkey vultures only eat dead animals and are not a danger to live prey

Explanation: The correct answer is **B) 2) turkey vultures only eat dead animals and are not a danger to live prey**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 5

Philosopher Martha Nussbaum has argued that the humanities play an essential role in democratic education. In her view, literature and philosophy cultivate empathy by encouraging students to imagine lives different from their own. She contrasts this with a purely technical education focused on economic productivity, warning that neglecting the humanities produces citizens who can generate wealth but lack the critical thinking and moral imagination necessary for self-governance. Nussbaum's framework has influenced education policy debates in several countries, though critics argue she overstates the civic impact of studying literature. Which of the following best describes the organizational structure of this passage?

A) 1) A chronological account of Nussbaum's career achievements

B) 2) A presentation of a philosopher's argument followed by its influence and a counterpoint

C) 3) A comparison of two competing educational philosophies with no stated preference

D) 4) A persuasive essay urging readers to study the humanities

Correct Answer: B) 2) A presentation of a philosopher's argument followed by its influence and a counterpoint

Explanation: The correct answer is **B) 2) A presentation of a philosopher's argument followed by its influence and a counterpoint**. Text structure describes how a writer arranges information — common patterns include cause/effect, compare/contrast, problem/solution, and chronological order. The sequence of ideas and transitional language in this passage most clearly reflects '2) a presentation of a philosopher's argument followed by its influence and a counterpoint'.

QUESTION 6

Recent studies on sleep deprivation reveal that even moderate sleep loss — defined as sleeping fewer than seven hours per night — significantly impairs cognitive function. Researchers at a major university tracked 200 participants over four weeks, finding that those who averaged six hours of sleep performed 23% worse on memory tests and showed measurably slower reaction times compared to those sleeping eight hours. Crucially, the sleep-deprived participants consistently underestimated their own impairment, rating their alertness as normal even when objective measures showed decline. The finding that sleep-deprived participants 'underestimated their own impairment' is significant because it suggests that —

A) 1) sleep deprivation only affects physical rather than mental performance

B) 2) people who sleep less may not realize their abilities are diminished

C) 3) six hours of sleep is sufficient for most cognitive tasks

D) 4) the study's measurement methods were unreliable

Correct Answer: B) 2) people who sleep less may not realize their abilities are diminished

Explanation: The correct answer is **B) 2) people who sleep less may not realize their abilities are diminished**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 2) people who sleep less may not realize their abilities are diminished.

QUESTION 7

The Japanese art of kintsugi involves repairing broken pottery with lacquer mixed with powdered gold, silver, or platinum. Rather than disguising the damage, kintsugi highlights the cracks, transforming them into luminous veins that become part of the object's history. The philosophy underlying kintsugi is rooted in wabi-sabi, the acceptance of imperfection and transience. Practitioners view each repair as adding value rather than diminishing it, treating breakage not as something to hide but as a chapter in the object's ongoing story. The word 'luminous' as used in this passage most nearly means —

A) 1) fragile and delicate

B) 2) historically significant

C) 3) brightly glowing or radiant

D) 4) carefully concealed

Correct Answer: C) 3) brightly glowing or radiant

Explanation: The correct answer is **C) 3) brightly glowing or radiant**. When determining word meaning from context, look at the surrounding sentences for synonyms, antonyms, or examples that clarify the word's usage. The context in this passage indicates the word means '3) brightly glowing or radiant', which fits the logical flow of the passage.

QUESTION 8

Economists have long debated the relationship between minimum wage increases and employment levels. Classical economic theory predicts that raising the minimum wage above the market equilibrium will reduce employment, as businesses cut positions to offset higher labor costs. However, empirical studies have produced mixed results. A landmark 1994 study by Card and Krueger found no significant employment losses after New Jersey raised its minimum wage, challenging the theoretical prediction. Subsequent research has continued to yield conflicting findings, suggesting that the employment effects depend heavily on local economic conditions, industry composition, and the magnitude of the increase. The author's treatment of the minimum wage debate can best be described as —

A) 1) strongly advocating for minimum wage increases based on the Card and Krueger study

B) 2) dismissing classical economic theory as fundamentally flawed

C) 3) presenting the issue as unresolved, with evidence supporting multiple perspectives

D) 4) arguing that empirical research is less reliable than theoretical models

Correct Answer: C) 3) presenting the issue as unresolved, with evidence supporting multiple perspectives

Explanation: The correct answer is **C) 3) presenting the issue as unresolved, with evidence supporting multiple perspectives**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '3) presenting the issue as unresolved, with evidence supporting multiple perspectives', making it the best-supported inference over the other options.

QUESTION 9

Passage 1: Community gardens strengthen neighborhoods by providing shared green spaces where residents collaborate, grow fresh produce, and build social connections. Studies show that areas with community gardens experience lower crime rates and higher property values. Passage 2: While community gardens offer recreational benefits, their impact on food security is often overstated. The amount of produce generated by a typical community garden is negligible compared to the caloric needs of surrounding residents, and maintaining these spaces requires consistent volunteer labor that many communities struggle to sustain. On which point would the authors of both passages most likely agree?

A) 1) Community gardens are the most effective tool for reducing urban crime

B) 2) Community gardens require no significant ongoing effort to maintain

C) 3) The food production of community gardens fully addresses local hunger

D) 4) Community gardens provide some positive value to neighborhoods

Correct Answer: D) 4) Community gardens provide some positive value to neighborhoods

Explanation: The correct answer is **D) 4) Community gardens provide some positive value to neighborhoods**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '4) Community gardens provide some positive value to neighborhoods', making it the best-supported inference over the other options.

QUESTION 10

The discovery of high-temperature superconductors in 1986 by Bednorz and Müller revolutionized materials science. Unlike conventional superconductors, which require cooling to near absolute zero, these ceramic compounds exhibited zero electrical resistance at temperatures achievable with liquid nitrogen — a far more economical coolant. The breakthrough sparked a global research frenzy, though practical applications have proven slower to develop than initially hoped. Current uses include MRI machines, particle accelerators, and experimental maglev trains, but widespread adoption in power grids remains limited by manufacturing challenges and material brittleness. According to the passage, why was the discovery of high-temperature superconductors considered revolutionary?

A) 1) They eliminated the need for any cooling systems

B) 2) They were the first materials ever to exhibit zero electrical resistance

C) 3) They immediately replaced all conventional superconductors in existing technology

D) 4) They could function at temperatures reachable with a cheaper, more accessible coolant

Correct Answer: D) 4) They could function at temperatures reachable with a cheaper, more accessible coolant

Explanation: The correct answer is **D) 4) They could function at temperatures reachable with a cheaper, more accessible coolant**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option D. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 11

Dr. Elena Marchetti surveyed 500 bilingual adults to examine how language switching affects emotional expression. Participants reported that they experienced emotions differently depending on which language they used: 72% said they felt more emotionally restrained when speaking their second language, while 65% reported feeling more authentic when expressing feelings in their first language. Marchetti hypothesizes that emotional vocabulary acquired in childhood carries deeper psychological associations, making first-language expression feel more genuine. However, she notes that 18% of participants actually preferred expressing difficult emotions in their second language, finding the emotional distance it provided to be therapeutic. The 18% of participants who preferred expressing difficult emotions in their second language most likely valued —

A) 1) the larger vocabulary available in their second language

B) 2) the psychological distance that made difficult topics easier to discuss

C) 3) the social prestige associated with speaking a second language

D) 4) the grammatical precision of their second language

Correct Answer: B) 2) the psychological distance that made difficult topics easier to discuss

Explanation: The correct answer is **B) 2) the psychological distance that made difficult topics easier to discuss**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 2) the psychological distance that made difficult topics easier to discuss.

QUESTION 12

The concept of 'food miles' — the distance food travels from farm to consumer — became a popular metric for evaluating the environmental impact of food choices. Advocates encouraged consumers to buy locally produced food to reduce transportation-related carbon emissions. However, subsequent lifecycle analyses revealed that transportation typically accounts for only 4-11% of a food product's total carbon footprint. Production methods — including fertilizer use, irrigation, and livestock management — contribute far more to greenhouse gas emissions. A 2008 study found that switching from red meat to vegetables for one day per week would reduce emissions more than buying entirely local food for an entire year. The 2008 study mentioned in the passage serves primarily to —

A) 1) prove that local food is nutritionally inferior to imported alternatives

B) 2) illustrate that production choices can outweigh transportation in environmental impact

C) 3) argue that consumers should stop buying local food entirely

D) 4) demonstrate that vegetarian diets are the only sustainable option

Correct Answer: B) 2) illustrate that production choices can outweigh transportation in environmental impact

Explanation: The correct answer is **B) 2) illustrate that production choices can outweigh transportation in environmental impact**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 13

Architectural historian Sarah Chen argues that brutalist buildings — massive concrete structures popular from the 1950s to 1970s — deserve preservation despite their polarizing aesthetics. 'These structures represent a bold social vision,' Chen writes. 'Many were built as public housing, libraries, and civic centers, designed to democratize access to monumental architecture.' Critics counter that brutalist buildings are oppressive and unwelcoming, their raw concrete facades showing severe weathering. Chen acknowledges the maintenance challenges but insists that demolishing these structures erases an important chapter of architectural and social history. Chen's argument for preserving brutalist buildings rests primarily on their —

A) 1) superior construction materials compared to modern buildings

B) 2) aesthetic beauty and visual appeal to most observers

C) 3) historical significance as expressions of democratic social ideals

D) 4) low maintenance costs relative to other architectural styles

Correct Answer: C) 3) historical significance as expressions of democratic social ideals

Explanation: The correct answer is **C) 3) historical significance as expressions of democratic social ideals**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 14

The octopus possesses one of the most unusual nervous systems in the animal kingdom. Two-thirds of its neurons reside not in its brain but in its eight arms, each of which can taste, touch, and make independent decisions. Researchers have observed severed octopus arms continuing to respond to stimuli, grasping objects and even attempting to bring food toward where the mouth would be. This distributed intelligence allows the octopus to process information locally, reducing the cognitive load on its central brain and enabling remarkably complex behaviors such as opening jars, navigating mazes, and using tools. The detail about severed arms continuing to respond to stimuli is included to —

A) 1) argue that octopuses do not truly need their central brain

B) 2) explain why octopuses are able to regenerate lost limbs

C) 3) suggest that octopus arms are more intelligent than the brain

D) 4) demonstrate the degree to which the arms operate autonomously

Correct Answer: D) 4) demonstrate the degree to which the arms operate autonomously

Explanation: The correct answer is **D) 4) demonstrate the degree to which the arms operate autonomously**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 15

In her 1962 book Silent Spring, Rachel Carson documented the devastating effects of synthetic pesticides, particularly DDT, on wildlife and ecosystems. Carson argued that the chemical industry prioritized profits over environmental safety and accused government agencies of uncritically accepting industry claims. The book provoked fierce backlash from chemical manufacturers, who questioned Carson's credentials and accused her of emotional bias. Despite this opposition, Silent Spring catalyzed the modern environmental movement, leading directly to the creation of the Environmental Protection Agency in 1970 and the eventual ban on DDT in the United States. The passage implies that the chemical industry's response to Silent Spring was —

A) 1) an acknowledgment that Carson's research was accurate

B) 2) a productive collaboration to develop safer pesticides

C) 3) an attempt to discredit the messenger rather than address her evidence

D) 4) an indication that DDT posed no actual environmental threat

Correct Answer: C) 3) an attempt to discredit the messenger rather than address her evidence

Explanation: The correct answer is **C) 3) an attempt to discredit the messenger rather than address her evidence**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. '3) an attempt to discredit the messenger rather than address her evidence' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 16

The placebo effect — in which patients improve after receiving an inert treatment they believe to be real medicine — has traditionally been viewed as a nuisance variable in clinical trials, something to be controlled for rather than studied. Recently, however, neuroscientists have begun investigating the placebo effect as a legitimate physiological phenomenon. Brain imaging studies show that placebos can trigger the release of endorphins and dopamine, producing measurable changes in neural activity. Some researchers now advocate for harnessing the placebo effect in clinical settings, arguing that the patient's belief in a treatment can be a powerful therapeutic tool when combined with evidence-based medicine. Which of the following conclusions is best supported by the passage?

A) 1) Placebos are equally effective as all forms of evidence-based medicine

B) 2) Brain imaging technology is unreliable for studying psychological phenomena

C) 3) Clinical trials should eliminate the use of placebo control groups

D) 4) The placebo effect involves real neurological changes, not merely subjective reports

Correct Answer: D) 4) The placebo effect involves real neurological changes, not merely subjective reports

Explanation: The correct answer is **D) 4) The placebo effect involves real neurological changes, not merely subjective reports**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. '4) The placebo effect involves real neurological changes, not merely subjective reports' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 17

Sociologist Ray Oldenburg coined the term 'third places' to describe informal public gathering spaces — cafés, barbershops, bookstores — that are neither home (first place) nor work (second place). Oldenburg argued that third places serve as anchors of community life, facilitating casual social interaction across class and demographic boundaries. As remote work has expanded, some researchers suggest that the traditional third place is evolving: coworking spaces, online forums, and even multiplayer video games may now fulfill similar social functions, though critics question whether virtual spaces can replicate the spontaneous, face-to-face encounters that Oldenburg considered essential. Based on the passage, which scenario best exemplifies a traditional 'third place' as Oldenburg defined it?

A) 1) A private office where employees hold scheduled meetings

B) 2) An online video game where players complete cooperative missions

C) 3) A family living room where relatives gather for holiday dinners

D) 4) A neighborhood café where diverse regulars chat informally over coffee

Correct Answer: D) 4) A neighborhood café where diverse regulars chat informally over coffee

Explanation: The correct answer is **D) 4) A neighborhood café where diverse regulars chat informally over coffee**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '4) A neighborhood café where diverse regulars chat informally over coffee', making it the best-supported inference over the other options.

QUESTION 18

The city council voted to approve the new transit plan, which [BLANK] reduce commute times by an estimated 15 percent.

A) 1) is expected to

B) 2) are expected to

C) 3) expecting to

D) 4) having expected to

Correct Answer: A) 1) is expected to

Explanation: The correct answer is **A) 1) is expected to**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields 1) is expected to.

QUESTION 19

Sentence 1: The museum's new exhibit features artifacts from ancient Mesopotamia. Sentence 2: Visitors can view cuneiform tablets, cylinder seals, and pottery dating back over 4,000 years. Sentence 3: The exhibit were curated by Dr. Amara Osei, a leading scholar in Near Eastern archaeology. Sentence 4: Interactive displays allow guests to learn about the daily lives of Sumerian citizens. Which sentence contains a grammatical error?

A) 1) Sentence 1

B) 2) Sentence 2

C) 3) Sentence 3

D) 4) Sentence 4

Correct Answer: C) 3) Sentence 3

Explanation: The correct answer is **C) 3) Sentence 3**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 20

The research team published their findings in a prestigious journal; [BLANK], the results attracted widespread media attention.

A) 1) on the other hand

B) 2) consequently

C) 3) nevertheless

D) 4) in contrast

Correct Answer: B) 2) consequently

Explanation: The correct answer is **B) 2) consequently**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 21

Draft paragraph: (1) Volunteering at the local animal shelter taught me responsibility and compassion. (2) I learned to care for animals with various medical needs. (3) My favorite subject in school is chemistry. (4) The experience solidified my decision to pursue a career in veterinary medicine. Which sentence should be removed to improve the paragraph's coherence?

A) 1) Sentence 1

B) 2) Sentence 2

C) 3) Sentence 3

D) 4) Sentence 4

Correct Answer: C) 3) Sentence 3

Explanation: The correct answer is **C) 3) Sentence 3**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 22

The athlete trained rigorously for months, and her dedication paid off [BLANK] she won the national championship in her division.

A) 1) off, when

B) 2) off: when

C) 3) off; when

D) 4) off when

Correct Answer: D) 4) off when

Explanation: The correct answer is **D) 4) off when**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 23

Neither the principal nor the teachers [BLANK] aware of the schedule change before the announcement.

A) 1) was

B) 2) has been

C) 3) is

D) 4) were

Correct Answer: D) 4) were

Explanation: The correct answer is **D) 4) were**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 24

Original: The company's profits declined sharply. The new CEO implemented cost-cutting measures. Employee morale also suffered. Layoffs were announced in three departments. Which revision best combines these sentences to improve flow and coherence?

A) 1) The company's profits declined sharply, the new CEO implemented cost-cutting measures, employee morale also suffered, layoffs were announced in three departments.

B) 2) Layoffs were announced because profits declined and also morale suffered with cost-cutting.

C) 3) The company's profits declined sharply and the new CEO implemented cost-cutting measures and employee morale also suffered and layoffs were announced.

D) 4) After the company's profits declined sharply, the new CEO implemented cost-cutting measures, including layoffs in three departments, which further damaged employee morale.

Correct Answer: D) 4) After the company's profits declined sharply, the new CEO implemented cost-cutting measures, including layoffs in three departments, which further damaged employee morale.

Explanation: The correct answer is **D) 4) After the company's profits declined sharply, the new CEO implemented cost-cutting measures, including layoffs in three departments, which further damaged employee morale.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 25

The documentary explores how social media algorithms [BLANK] users' political beliefs by limiting exposure to opposing viewpoints.

A) 1) reinforces

B) 2) reinforcing

C) 3) reinforce

D) 4) has reinforced

Correct Answer: C) 3) reinforce

Explanation: The correct answer is **C) 3) reinforce**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 26

Paragraph: The Great Barrier Reef supports thousands of marine species. _____ Tourism generates billions of dollars annually for the Australian economy. Conservation groups have called for stricter protections against agricultural runoff and shipping traffic. Which sentence best fills the blank to improve the paragraph's coherence?

A) 1) Australia is the world's sixth-largest country by land area.

B) 2) Beyond its ecological importance, the reef also serves as a major economic resource.

C) 3) The reef was first mapped by Captain James Cook in 1770.

D) 4) Many tourists prefer to visit the reef during the winter months.

Correct Answer: B) 2) Beyond its ecological importance, the reef also serves as a major economic resource.

Explanation: The correct answer is **B) 2) Beyond its ecological importance, the reef also serves as a major economic resource.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. '2) Beyond its ecological importance, the reef also serves as a major economic resource.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 27

The professor asked the students to submit [BLANK] research proposals by Friday.

A) 1) their

B) 2) there

C) 3) they're

D) 4) its

Correct Answer: A) 1) their

Explanation: The correct answer is **A) 1) their**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 28

Traveling through the mountain pass at dawn, [BLANK].

A) 1) the sunrise was breathtaking to the hikers

B) 2) a breathtaking sunrise appeared before them

C) 3) the hikers were awed by the breathtaking sunrise

D) 4) it was a breathtaking sunrise that the hikers saw

Correct Answer: C) 3) the hikers were awed by the breathtaking sunrise

Explanation: The correct answer is **C) 3) the hikers were awed by the breathtaking sunrise**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 29

The report concluded that renewable energy sources, [BLANK] solar and wind power, have become increasingly cost-competitive with fossil fuels over the past decade.

A) 1) such as

B) 2) for instance:

C) 3) like;

D) 4) example,

Correct Answer: A) 1) such as

Explanation: The correct answer is **A) 1) such as**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 30

Essay excerpt: Many students struggle with time management during their first year of college. [A] Without effective planning, assignments pile up quickly. [B] Furthermore, the freedom of college life means fewer external reminders about upcoming deadlines. [C] Students should also eat a balanced diet and exercise regularly. [D] Developing a consistent scheduling routine early in the semester can prevent these problems from escalating. Which sentence disrupts the paragraph's focus and should be removed?

A) 1) Sentence A

B) 2) Sentence B

C) 3) Sentence C

D) 4) Sentence D

Correct Answer: C) 3) Sentence C

Explanation: The correct answer is **C) 3) Sentence C**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 31

A store marks up the wholesale price of a jacket by 60% to set the retail price. During a sale, the store offers a 25% discount off the retail price. If the wholesale price is $80, what is the sale price?

A) 1) $92.00

B) 2) $88.00

C) 3) $100.00

D) 4) $96.00

Correct Answer: D) 4) $96.00

Explanation: The correct answer is **D) 4) $96.00**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 32

A recipe calls for 2¾ cups of flour to make 18 cookies. How many cups of flour are needed to make 48 cookies?

A) 1) 7⅓ cups

B) 2) 6½ cups

C) 3) 8¼ cups

D) 4) 7 cups

Correct Answer: A) 1) 7⅓ cups

Explanation: The correct answer is **A) 1) 7⅓ cups**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 33

Marcus earns $18.50 per hour for the first 40 hours per week and 1.5 times his regular rate for overtime. If he worked 47 hours last week, what were his total gross earnings?

A) 1) $934.25

B) 2) $869.50

C) 3) $935.75

D) 4) $934.75

Correct Answer: A) 1) $934.25

Explanation: The correct answer is **A) 1) $934.25**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 1) $934.25.

QUESTION 34

A printer can print 38 pages per minute. How many complete minutes will it take to print a 500-page document?

A) 1) 13 minutes

B) 2) 14 minutes

C) 3) 12 minutes

D) 4) 15 minutes

Correct Answer: B) 2) 14 minutes

Explanation: The correct answer is **B) 2) 14 minutes**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 35

The ratio of red marbles to blue marbles in a bag is 5:3. If there are 120 marbles in total and all marbles are either red or blue, how many blue marbles are in the bag?

A) 1) 75

B) 2) 50

C) 3) 45

D) 4) 48

Correct Answer: C) 3) 45

Explanation: The correct answer is **C) 3) 45**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives 3) 45.

QUESTION 36

Solve for x: 3(2x - 5) + 4 = 7x - 8

A) 1) x = -3

B) 2) x = 3

C) 3) x = -1

D) 4) x = 1

Correct Answer: A) 1) x = -3

Explanation: The correct answer is **A) 1) x = -3**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 1) x = -3.

QUESTION 37

A taxi charges a flat fee of $3.50 plus $2.25 per mile. If a passenger has exactly $25 to spend, what is the maximum number of complete miles the passenger can travel?

A) 1) 10 miles

B) 2) 11 miles

C) 3) 8 miles

D) 4) 9 miles

Correct Answer: D) 4) 9 miles

Explanation: The correct answer is **D) 4) 9 miles**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 38

Which equation represents a line perpendicular to y = (2/3)x + 5 and passing through the point (4, -1)?

A) 1) y = (-3/2)x + 5

B) 2) y = (2/3)x - 1

C) 3) y = (-3/2)x - 1

D) 4) y = (3/2)x + 5

Correct Answer: A) 1) y = (-3/2)x + 5

Explanation: The correct answer is **A) 1) y = (-3/2)x + 5**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 1) y = (-3/2)x + 5.

QUESTION 39

Factor completely: $2x^2 + 7x - 15$

A) 1) (2x - 3)(x + 5)

B) 2) (2x + 5)(x - 3)

C) 3) (2x + 3)(x - 5)

D) 4) (2x - 5)(x + 3)

Correct Answer: A) 1) (2x - 3)(x + 5)

Explanation: The correct answer is **A) 1) (2x - 3)(x + 5)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 1) (2x - 3)(x + 5).

QUESTION 40

If $f(x) = 3x^2 - 2x + 1$, what is $f(-2)$?

A) 1) 9

B) 2) 17

C) 3) 13

D) 4) 21

Correct Answer: B) 2) 17

Explanation: The correct answer is **B) 2) 17**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 2) 17.

QUESTION 41

A cylindrical water tank has a radius of 5 feet and a height of 12 feet. What is the volume of the tank in cubic feet? (Use $\pi \approx 3.14$)

A) 1) 942 cubic feet

B) 2) 376.8 cubic feet

C) 3) 188.4 cubic feet

D) 4) 1,884 cubic feet

Correct Answer: A) 1) 942 cubic feet

Explanation: The correct answer is **A) 1) 942 cubic feet**. Volume formulas: rectangular prism = $l \times w \times h$; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 1) 942 cubic feet.

QUESTION 42

In triangle ABC, angle A measures 52° and angle B measures 73°. What is the measure of angle C?

A) 1) 65°

B) 2) 55°

C) 3) 45°

D) 4) 35°

Correct Answer: B) 2) 55°

Explanation: The correct answer is **B) 2) 55°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 2) 55°.

QUESTION 43

A ladder 20 feet long leans against a wall, with its base 12 feet from the wall. How high up the wall does the ladder reach?

A) 1) 8 feet

B) 2) 14 feet

C) 3) 16 feet

D) 4) 18 feet

Correct Answer: C) 3) 16 feet

Explanation: The correct answer is **C) 3) 16 feet**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 44

A rectangular garden measures 24 feet by 18 feet. A walkway 3 feet wide is built around the entire outside of the garden. What is the area of the walkway alone?

A) 1) 270 sq ft

B) 2) 252 sq ft

C) 3) 306 sq ft

D) 4) 288 sq ft

Correct Answer: D) 4) 288 sq ft

Explanation: The correct answer is **D) 4) 288 sq ft**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 4) 288 sq ft.

QUESTION 45

Two similar triangles have a scale factor of 3:5. If the area of the smaller triangle is 36 square centimeters, what is the area of the larger triangle?

A) 1) 100 sq cm

B) 2) 60 sq cm

C) 3) 90 sq cm

D) 4) 80 sq cm

Correct Answer: A) 1) 100 sq cm

Explanation: The correct answer is **A) 1) 100 sq cm**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b^2-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 1) 100 sq cm.

QUESTION 46

A dataset contains the following values: 12, 15, 18, 18, 20, 22, 25, 28, 30. What is the interquartile range (IQR)?

A) 1) 10

B) 2) 12

C) 3) 13

D) 4) 11

Correct Answer: A) 1) 10

Explanation: The correct answer is **A) 1) 10**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 1) 10.

QUESTION 47

A bag contains 6 red balls, 4 green balls, and 5 yellow balls. If two balls are drawn without replacement, what is the probability that both are green?

A) 1) 2/35

B) 2) 4/75

C) 3) 6/105

D) 4) 8/225

Correct Answer: A) 1) 2/35

Explanation: The correct answer is **A) 1) 2/35**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1) 2/35.

QUESTION 48

The mean score on an exam is 74 with a standard deviation of 8. Using the empirical rule (68-95-99.7), approximately what percentage of students scored between 58 and 90?

A) 1) 68%

B) 2) 95%

C) 3) 99.7%

D) 4) 84%

Correct Answer: B) 2) 95%

Explanation: The correct answer is **B) 2) 95%**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 2) 95%.

QUESTION 49

A survey of 200 college students found that 120 prefer coffee, 60 prefer tea, and 20 prefer neither. How many students prefer both coffee and tea?

A) 1) 0

B) 2) 10

C) 3) 20

D) 4) 30

Correct Answer: A) 1) 0

Explanation: The correct answer is **A) 1) 0**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 1) 0.

QUESTION 50

A scatter plot of study hours versus exam scores shows a correlation coefficient of r = 0.87. Which statement best interprets this value?

A) 1) Studying more hours causes higher exam scores

B) 2) Exam scores increase by 0.87 points for each additional hour of study

C) 3) 87% of students who study more earn higher scores

D) 4) There is a strong positive linear association between study hours and exam scores

Correct Answer: D) 4) There is a strong positive linear association between study hours and exam scores

Explanation: The correct answer is **D) 4) There is a strong positive linear association between study hours and exam scores**. Scatter plots show the relationship between two variables. A positive correlation means both increase together; a negative correlation means one increases as the other decreases; no correlation means no discernible pattern. Examining the trend in this scatter plot indicates 4) There is a strong positive linear association between study hours and exam scores.

QUESTION 51

Essay Assignment

A) Prompt: Some educators argue that high schools should replace traditional letter grades (A, B, C, D, F) with a competency-based assessment system in which students advance only after demonstrating mastery of specific skills. Supporters claim this approach reduces grade inflation and ensures genuine learning, while opponents worry it could increase pressure on students and create logistical challenges for colleges evaluating applicants. Write a persuasive essay in which you take a clear position on whether high schools should adopt competency-based assessment in place of traditional letter grades. Support your argument with specific reasons and examples.

B) Suggested thesis: Competency-based assessment better prepares students for real-world demands by prioritizing skill mastery over arbitrary grade benchmarks.

C) Rubric focus areas: Clear thesis and persuasive stance; logical organization with coherent transitions; specific examples and evidence supporting claims; effective acknowledgment and rebuttal of counterarguments; command of grammar, syntax, and academic tone.

D)

Correct Answer: A) Prompt: Some educators argue that high schools should replace traditional letter grades (A, B, C, D, F) with a competency-based assessment system in which students advance only after demonstrating mastery of specific skills. Supporters claim this approach reduces grade inflation and ensures genuine learning, while opponents worry it could increase pressure on students and create logistical challenges for colleges evaluating applicants. Write a persuasive essay in which you take a clear position on whether high schools should adopt competency-based assessment in place of traditional letter grades. Support your argument with specific reasons and examples.

Explanation: The correct answer is **A) Prompt: Some educators argue that high schools should replace traditional letter grades (A, B, C, D, F) with a competency-based assessment system in which students advance only after demonstrating mastery of specific skills. Supporters claim this approach reduces grade inflation and ensures genuine learning, while opponents worry it could increase pressure on students and create logistical challenges for colleges evaluating applicants. Write a persuasive essay in which you take a clear position on whether high schools should adopt competency-based assessment in place of traditional letter grades. Support your argument with specific reasons and examples.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

FULL CRC EXAM

TSIA2 Simulated Exam 4 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

Read the following passage: 'The development of synthetic biology has introduced a new paradigm in medicine. Scientists can now engineer microorganisms to produce insulin, antibodies, and even complex vaccines within bioreactors. This approach reduces dependence on traditional pharmaceutical manufacturing, which often requires expensive raw materials and lengthy production timelines. Critics, however, warn that releasing engineered organisms into broader ecosystems could have unforeseen consequences.' What is the author's primary purpose in this passage?

A) To argue that synthetic biology should replace all traditional manufacturing

B) To explain the benefits and risks of synthetic biology in medicine

C) To persuade readers that engineered organisms are dangerous

D) To describe the history of pharmaceutical production

Correct Answer: A) To argue that synthetic biology should replace all traditional manufacturing

Explanation: The correct answer is **A) To argue that synthetic biology should replace all traditional manufacturing**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 2

Based on the passage above about synthetic biology, what does the word 'paradigm' most likely mean in context?

A) A scientific experiment

B) A manufacturing process

C) A type of medication

D) A new model or framework for understanding something

Correct Answer: A) A scientific experiment

Explanation: The correct answer is **A) A scientific experiment**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A scientific experiment', making it the best-supported inference over the other options.

QUESTION 3

Read the following passage: 'During the Harlem Renaissance of the 1920s, African American artists, writers, and musicians forged a cultural movement that redefined American identity. Langston Hughes captured the rhythms of everyday Black life in his poetry, while Aaron Douglas translated African motifs into modernist visual art. The movement was not merely artistic; it was a deliberate assertion of dignity and intellectual equality in a society that systematically denied both.' Which statement best describes the author's claim about the Harlem Renaissance?

A) It was primarily a literary movement centered on poetry

B) It had little lasting impact on American identity

C) It was limited to visual arts and music

D) It served as both a cultural and a political statement

Correct Answer: A) It was primarily a literary movement centered on poetry

Explanation: The correct answer is **A) It was primarily a literary movement centered on poetry**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'It was primarily a literary movement centered on poetry' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 4

In the Harlem Renaissance passage, the phrase 'systematically denied' suggests that the denial of dignity was —

A) accidental and infrequent

B) primarily economic in nature

C) limited to certain regions

D) organized and pervasive

Correct Answer: A) accidental and infrequent

Explanation: The correct answer is **A) accidental and infrequent**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'accidental and infrequent', making it the best-supported inference over the other options.

QUESTION 5

Read the following passage: 'Urban vertical farming uses stacked hydroponic layers inside climate-controlled buildings to grow produce year-round. Proponents argue it reduces water usage by up to 95 percent compared to conventional agriculture and eliminates the need for pesticides. Skeptics counter that the electricity costs for lighting and climate control often exceed the savings, making vertical farms economically viable only for high-value crops like herbs and microgreens.' A reader who supports vertical farming would most likely criticize the passage for —

A) overemphasizing the economic limitations

B) ignoring the environmental benefits of reduced water usage

C) presenting too many statistics

D) failing to mention hydroponic technology

Correct Answer: A) overemphasizing the economic limitations

Explanation: The correct answer is **A) overemphasizing the economic limitations**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'overemphasizing the economic limitations', making it the best-supported inference over the other options.

QUESTION 6

Which of the following would best strengthen the skeptics' argument in the vertical farming passage?

A) Data showing vertical farms use renewable energy sources

B) A study demonstrating that vertical farm electricity costs average three times the revenue from lettuce production

C) Testimonials from chefs who prefer vertically farmed herbs

D) Historical data on the growth of hydroponic technology

Correct Answer: A) Data showing vertical farms use renewable energy sources

Explanation: The correct answer is **A) Data showing vertical farms use renewable energy sources**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Data showing vertical farms use renewable energy sources' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 7

Read the following poem excerpt: 'The fog crept over the harbor wall, / wrapping each mast in its silver shawl, / until the ships were ghosts at rest, / and silence pressed against my chest.' The figurative language in this excerpt primarily creates a mood of —

A) joyful celebration

B) violent confrontation

C) eerie stillness

D) bitter resentment

Correct Answer: A) joyful celebration

Explanation: The correct answer is **A) joyful celebration**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 8

In the poem excerpt about the fog, the ships are compared to 'ghosts at rest' primarily to emphasize —

A) the danger of sailing in fog

B) their faded, motionless appearance in the mist

C) the age and disrepair of the vessels

D) the supernatural beliefs of sailors

Correct Answer: A) the danger of sailing in fog

Explanation: The correct answer is **A) the danger of sailing in fog**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 9

Read the following passage: 'The gig economy has fundamentally altered the relationship between workers and employers. Freelancers now comprise over 36 percent of the U.S. workforce, handling everything from graphic design to medical transcription. While this model offers flexibility and autonomy, it also strips workers of benefits like health insurance, retirement plans, and unemployment protections that traditional employment provides.' Which organizational pattern does the author primarily use?

A) Chronological order

B) Compare and contrast

C) Cause and effect

D) Problem and solution

Correct Answer: A) Chronological order

Explanation: The correct answer is **A) Chronological order**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 10

Read the following passage: 'Coral bleaching events have increased fivefold since the 1980s, driven primarily by rising ocean temperatures. When water temperatures exceed normal ranges by even 1-2 degrees Celsius, corals expel the symbiotic algae that provide them with nutrients and color. Without these algae, corals turn white and, if conditions persist, die. The Great Barrier Reef experienced mass bleaching in 2016, 2017, 2020, and 2022, losing approximately half its coral cover.' The author includes specific dates and statistics most likely to —

A) establish the severity and accelerating pace of the problem

B) entertain readers with dramatic storytelling

C) argue that coral bleaching is irreversible

D) compare coral reefs across different oceans

Correct Answer: A) establish the severity and accelerating pace of the problem

Explanation: The correct answer is **A) establish the severity and accelerating pace of the problem**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'establish the severity and accelerating pace of the problem', making it the best-supported inference over the other options.

QUESTION 11

Based on the coral bleaching passage, what can the reader infer about the relationship between corals and symbiotic algae?

A) The algae are parasites that harm coral health

B) Corals can thrive independently without the algae

C) The algae only affect the color of corals, not their health

D) The relationship is mutually beneficial and essential for coral survival

Correct Answer: A) The algae are parasites that harm coral health

Explanation: The correct answer is **A) The algae are parasites that harm coral health**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'The algae are parasites that harm coral health', making it the best-supported inference over the other options.

QUESTION 12

Read the following passage: 'In 1848, the Seneca Falls Convention produced the Declaration of Sentiments, modeled after the Declaration of Independence. Elizabeth Cady Stanton deliberately echoed Jefferson's language, writing that "all men and women are created equal." By appropriating this foundational American text, Stanton forced her audience to confront the contradiction between the nation's stated ideals and its treatment of women.' Stanton's rhetorical strategy of echoing the Declaration of Independence is best described as —

A) an appeal to emotion through personal anecdotes

B) an appeal to shared values and logical consistency

C) an ad hominem attack against political opponents

D) a use of technical jargon to establish credibility

Correct Answer: A) an appeal to emotion through personal anecdotes

Explanation: The correct answer is **A) an appeal to emotion through personal anecdotes**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 13

Read the following passage: 'Microplastics — fragments smaller than five millimeters — have been detected in Arctic ice, deep-sea sediments, and human blood. A 2023 study found an average of 1.6 micrograms of plastic per milliliter in tested blood samples. Researchers are still determining health impacts, but preliminary studies link microplastic exposure to inflammation, hormonal disruption, and cellular damage in laboratory animals.' The author's tone in this passage is best described as —

A) objective and evidence-based

B) alarmist and exaggerated

C) dismissive and unconcerned

D) optimistic and reassuring

Correct Answer: A) objective and evidence-based

Explanation: The correct answer is **A) objective and evidence-based**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'objective and evidence-based' as the dominant tone.

QUESTION 14

Read the following sentence: 'The committee have been debating the proposal for three hours, and they has yet to reach a consensus.' Which revision corrects the errors in this sentence?

A) The committee have been debating the proposal for three hours, and they have yet to reach a consensus.

B) The committee have been debating the proposal for three hours, and it has yet to reach a consensus.

C) The committee has been debating the proposal for three hours, and they has yet to reach a consensus.

D) The committee has been debating the proposal for three hours, and it has yet to reach a consensus.

Correct Answer: A) The committee have been debating the proposal for three hours, and they have yet to reach a consensus.

Explanation: The correct answer is **A) The committee have been debating the proposal for three hours, and they have yet to reach a consensus.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 15

Read the following sentence: 'Neither the professor nor her teaching assistants was available to answer questions during office hours last Friday.' Which revision, if any, is needed?

A) No revision is needed

B) Change 'nor' to 'or'

C) Change 'her' to 'their'

D) Change 'was' to 'were'

Correct Answer: A) No revision is needed

Explanation: The correct answer is **A) No revision is needed**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 16

Read the following sentence: 'The architect presented three designs, however, the client preferred a completely different concept that incorporated sustainable materials.' Which revision best corrects the punctuation error?

A) The architect presented three designs however the client preferred a completely different concept that incorporated sustainable materials.

B) The architect presented three designs, however the client preferred a completely different concept, that incorporated sustainable materials.

C) The architect presented three designs; however, the client preferred a completely different concept that incorporated sustainable materials.

D) The architect presented three designs however, the client preferred a completely different concept that incorporated sustainable materials.

Correct Answer: A) The architect presented three designs however the client preferred a completely different concept that incorporated sustainable materials.

Explanation: The correct answer is **A) The architect presented three designs however the client preferred a completely different concept that incorporated sustainable materials.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 17

A student is writing a research paper about renewable energy adoption. Which sentence would best serve as a thesis statement?

A) Renewable energy is an interesting topic that many people are talking about these days.

B) Solar panels and wind turbines are two types of renewable energy sources.

C) While initial infrastructure costs remain high, widespread adoption of renewable energy is essential for reducing carbon emissions, creating sustainable jobs, and achieving long-term energy independence.

D) Some people support renewable energy while others prefer fossil fuels.

Correct Answer: A) Renewable energy is an interesting topic that many people are talking about these days.

Explanation: The correct answer is **A) Renewable energy is an interesting topic that many people are talking about these days.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 18

Read the following paragraph: '(1) The human brain consumes approximately 20 percent of the body's total energy despite comprising only 2 percent of its mass. (2) This disproportionate energy demand reflects the brain's constant activity. (3) Even during sleep, neurons continue firing, consolidating memories, and regulating vital functions. (4) Bananas are also a good source of potassium and energy.' Which sentence should be removed to improve the paragraph's coherence?

A) Sentence 4

B) Sentence 2

C) Sentence 3

D) Sentence 1

Correct Answer: A) Sentence 4

Explanation: The correct answer is **A) Sentence 4**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 19

A student writes: 'The volunteers who organized the charity event, they worked tirelessly for weeks to ensure its success.' Which revision eliminates the grammatical error?

A) The volunteers who organized the charity event; they worked tirelessly for weeks to ensure its success.

B) They, the volunteers who organized the charity event, worked tirelessly for weeks to ensure its success.

C) The volunteers, who organized the charity event, they worked tirelessly for weeks to ensure its success.

D) The volunteers who organized the charity event worked tirelessly for weeks to ensure its success.

Correct Answer: A) The volunteers who organized the charity event; they worked tirelessly for weeks to ensure its success.

Explanation: The correct answer is **A) The volunteers who organized the charity event; they worked tirelessly for weeks to ensure its success.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 20

Read the following sentences: 'The museum's new exhibit features artifacts from ancient Mesopotamia. It includes cuneiform tablets. It also includes cylinder seals. There are also pottery fragments on display.' Which revision best combines these sentences?

A) The museum's new exhibit features artifacts from ancient Mesopotamia, including cuneiform tablets, cylinder seals, and pottery fragments.

B) The museum's new exhibit features artifacts from ancient Mesopotamia, and it includes cuneiform tablets, and cylinder seals, and pottery fragments.

C) The museum's new exhibit features artifacts from ancient Mesopotamia, it includes cuneiform tablets, cylinder seals, and pottery fragments.

D) The museum's new exhibit features artifacts from ancient Mesopotamia; cuneiform tablets; cylinder seals; and pottery fragments.

Correct Answer: A) The museum's new exhibit features artifacts from ancient Mesopotamia, including cuneiform tablets, cylinder seals, and pottery fragments.

Explanation: The correct answer is **A) The museum's new exhibit features artifacts from ancient Mesopotamia, including cuneiform tablets, cylinder seals, and pottery fragments.**. A sentence fragment lacks a subject, a predicate, or both; a run-on joins independent clauses without proper punctuation or a coordinating conjunction. Option A is the only choice that forms a grammatically complete, correctly punctuated sentence.

QUESTION 21

Read the following passage: 'The transition to electric vehicles presents both opportunities and challenges for rural communities. (1) Electric vehicles produce zero tailpipe emissions, reducing air pollution in areas already affected by agricultural dust and chemical runoff. (2) _____, the limited availability of charging infrastructure in rural regions creates significant barriers to adoption. (3) Many rural residents drive longer distances for work and errands, making range anxiety a more pressing concern than for urban drivers.' Which transition word or phrase best fills the blank in sentence 2?

A) Furthermore

B) In addition

C) Similarly

D) However

Correct Answer: A) Furthermore

Explanation: The correct answer is **A) Furthermore**. When determining word meaning from context, look at the surrounding sentences for synonyms, antonyms, or examples that clarify the word's usage. The context in this passage indicates the word means 'furthermore', which fits the logical flow of the passage.

QUESTION 22

A student writes: 'After reviewing the data carefully and consulting with experts in the field. The research team published their groundbreaking findings in a prestigious journal.' Which revision corrects the sentence fragment?

A) After reviewing the data carefully, and consulting with experts in the field, the research team published their groundbreaking findings in a prestigious journal.

B) After reviewing the data carefully and consulting with experts in the field; the research team published their groundbreaking findings in a prestigious journal.

C) After reviewing the data carefully and consulting with experts in the field, the research team published their groundbreaking findings in a prestigious journal.

D) After reviewing the data carefully and consulting with experts in the field the research team published their groundbreaking findings in a prestigious journal.

Correct Answer: A) After reviewing the data carefully, and consulting with experts in the field, the research team published their groundbreaking findings in a prestigious journal.

Explanation: The correct answer is **A) After reviewing the data carefully, and consulting with experts in the field, the research team published their groundbreaking findings in a prestigious journal.**. A sentence fragment lacks a subject, a predicate, or both; a run-on joins independent clauses without proper punctuation or a coordinating conjunction. Option A is the only choice that forms a grammatically complete, correctly punctuated sentence.

QUESTION 23

Read the following passage: 'Bioluminescence — the production of light by living organisms — serves multiple ecological functions. Deep-sea anglerfish use luminescent lures to attract prey in the darkness of the ocean floor. Fireflies flash species-specific patterns to locate mates during summer evenings. Some squid species release glowing ink clouds to confuse predators and escape.' Based on the passage, which conclusion is best supported?

A) All marine animals produce bioluminescence

B) Bioluminescence has evolved to serve different survival purposes across species

C) Bioluminescence is used exclusively for attracting mates

D) Bioluminescence occurs only in deep-sea environments

Correct Answer: A) All marine animals produce bioluminescence

Explanation: The correct answer is **A) All marine animals produce bioluminescence**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'All marine animals produce bioluminescence' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 24

Read the following passage: 'The emergence of deepfake technology poses unprecedented challenges to journalism and public trust. Sophisticated AI algorithms can now generate realistic video footage of public figures saying things they never said. While some researchers develop detection tools, the technology evolves faster than the countermeasures. Media literacy experts argue that the greatest defense is an informed public that questions the authenticity of digital content.' The author implies that the problem of deepfakes is particularly difficult to solve because —

A) detection technology cannot keep pace with deepfake advancement

B) the public is uninterested in media literacy

C) journalists refuse to acknowledge the technology

D) deepfakes are only used for entertainment purposes

Correct Answer: A) detection technology cannot keep pace with deepfake advancement

Explanation: The correct answer is **A) detection technology cannot keep pace with deepfake advancement**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'detection technology cannot keep pace with deepfake advancement' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 25

Read the following excerpt from a student essay: 'Social media platforms should be required to verify the age of all users. First, children under thirteen lack the cognitive development to evaluate manipulative advertising and curated content. Second, studies consistently link early social media use to increased rates of anxiety and depression among adolescents. Finally, current self-reported age verification systems are easily circumvented, rendering existing protections meaningless.' The organizational structure of this argument is best described as —

A) narrative with chronological development

B) claim supported by multiple distinct reasons

C) comparison of opposing viewpoints

D) process analysis with sequential steps

Correct Answer: A) narrative with chronological development

Explanation: The correct answer is **A) narrative with chronological development**. Text structure describes how a writer arranges information — common patterns include cause/effect, compare/contrast, problem/solution, and chronological order. The sequence of ideas and transitional language in this passage most clearly reflects 'narrative with chronological development'.

QUESTION 26

A student writes: 'The company's profits soared to unprecedented heights, consequently, the board approved raises for all employees and expanded its operations into three new markets.' Which revision best corrects this sentence?

A) The company's profits soared to unprecedented heights consequently the board approved raises for all employees and expanded its operations into three new markets.

B) The company's profits soared to unprecedented heights, consequently the board approved raises for all employees, and expanded its operations into three new markets.

C) The company's profits soared to unprecedented heights; consequently, the board approved raises for all employees and expanded its operations into three new markets.

D) The company's profits soared to unprecedented heights, consequently; the board approved raises for all employees and expanded its operations into three new markets.

Correct Answer: A) The company's profits soared to unprecedented heights consequently the board approved raises for all employees and expanded its operations into three new markets.

Explanation: The correct answer is **A) The company's profits soared to unprecedented heights consequently the board approved raises for all employees and expanded its operations into three new markets.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 27

Read the following passage: 'When Tomas arrived at the abandoned observatory, the telescope still pointed toward Orion's Belt, exactly where his grandfather had aimed it forty years ago. Dust covered every surface, but the logbook on the desk lay open to the last entry: "December 14, 1984 — saw something I cannot explain. Returning tomorrow." There was no entry for December 15.' The detail about the missing December 15 entry most likely serves to —

A) create suspense about what happened to the grandfather

B) show that the grandfather was an unreliable narrator

C) indicate that the grandfather lost interest in astronomy

D) demonstrate the poor condition of the observatory

Correct Answer: A) create suspense about what happened to the grandfather

Explanation: The correct answer is **A) create suspense about what happened to the grandfather**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'create suspense about what happened to the grandfather', making it the best-supported inference over the other options.

QUESTION 28

In the observatory passage, the image of the telescope still pointing toward Orion's Belt primarily conveys a sense of —

A) frozen time and unfinished purpose

B) technological advancement

C) scientific achievement

D) the grandfather's incompetence

Correct Answer: A) frozen time and unfinished purpose

Explanation: The correct answer is **A) frozen time and unfinished purpose**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 29

A student is revising the following paragraph for an essay about urban planning: 'Cities should invest in more green spaces. Parks are nice places to visit. Green spaces reduce urban heat islands by providing shade and evapotranspiration cooling. They also improve mental health outcomes, with studies showing a 20 percent reduction in stress levels among residents living near parks. Additionally, urban green spaces increase property values and generate tax revenue that offsets maintenance costs.' Which sentence is the weakest and should be revised or replaced to strengthen the paragraph?

A) 'Cities should invest in more green spaces.'

B) 'Green spaces reduce urban heat islands by providing shade and evapotranspiration cooling.'

C) 'Parks are nice places to visit.'

D) 'They also improve mental health outcomes, with studies showing a 20 percent reduction in stress levels among residents living near parks.'

Correct Answer: A) 'Cities should invest in more green spaces.'

Explanation: The correct answer is **A) 'Cities should invest in more green spaces.'**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 30

Read the following sentence: 'The archaeologist, along with her team of graduate students, were excavating a Bronze Age settlement when they discovered the intact burial chamber.' Which revision corrects the subject-verb agreement error?

A) The archaeologist, along with her team of graduate students, were excavating a Bronze Age settlement when she discovered the intact burial chamber.

B) The archaeologists, along with her team of graduate students, were excavating a Bronze Age settlement when they discovered the intact burial chamber.

C) The archaeologist, along with her team of graduate students, was excavating a Bronze Age settlement when they discovered the intact burial chamber.

D) No revision is needed.

Correct Answer: A) The archaeologist, along with her team of graduate students, were excavating a Bronze Age settlement when she discovered the intact burial chamber.

Explanation: The correct answer is **A) The archaeologist, along with her team of graduate students, were excavating a Bronze Age settlement when she discovered the intact burial chamber.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option A is grammatically correct.

QUESTION 31

A store sells a jacket for $84, which represents a 30% markup over the wholesale cost. What was the wholesale cost of the jacket, rounded to the nearest cent?

A) $58.80

B) $109.20

C) $64.62

D) $54.00

Correct Answer: A) $58.80

Explanation: The correct answer is **A) $58.80**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 32

A recipe requires 2¾ cups of flour to make 16 cookies. How many cups of flour are needed to make 40 cookies?

A) 6⅞ cups

B) 6 cups

C) 5½ cups

D) 7¼ cups

Correct Answer: A) 6⅞ cups

Explanation: The correct answer is **A) 6⅞ cups**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 33

A car's value depreciates by 15% each year. If the car was purchased for $20,000, what is its approximate value after 3 years?

A) $12,283

B) $14,450

C) $11,000

D) $17,000

Correct Answer: A) $12,283

Explanation: The correct answer is **A) $12,283**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 34

A cyclist travels 15 miles in 1 hour and 12 minutes. What is the cyclist's average speed in miles per hour?

A) 12.5 mph

B) 12.0 mph

C) 11.5 mph

D) 13.0 mph

Correct Answer: A) 12.5 mph

Explanation: The correct answer is **A) 12.5 mph**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 12.5 mph.

QUESTION 35

An investment of $5,000 earns simple interest at an annual rate of 4.5%. What is the total value of the investment after 6 years?

A) $5,225

B) $6,350

C) $7,250

D) $5,900

Correct Answer: A) $5,225

Explanation: The correct answer is **A) $5,225**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to $5,225.

QUESTION 36

Solve for x: $4(x + 3) - 2 = 3(2x - 1) + 5$

A) 3

B) 4

C) 2

D) 5

Correct Answer: A) 3

Explanation: The correct answer is **A) 3**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 3.

QUESTION 37

Which equation represents the line that passes through the points (−2, 7) and (4, −5)?

A) y = −½x + 6

B) y = 2x + 11

C) y = −2x + 5

D) y = −2x + 3

Correct Answer: A) y = −½x + 6

Explanation: The correct answer is **A) y = −½x + 6**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to y = −½x + 6.

QUESTION 38

Simplify the expression: $(3x^2y^3)^2 \cdot (2xy)$

A) $18x^4y^6$

B) $12x^5y^6$

C) $18x^5y^7$

D) $12x^5y^7$

Correct Answer: A) $18x^4y^6$

Explanation: The correct answer is **A) $18x^4y^6$**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to $18x^4y^6$.

QUESTION 39

A system of equations is given: x + 3y = 11 and 2x − y = 1. What is the value of x?

A) 1

B) 4

C) 3

D) 2

Correct Answer: A) 1

Explanation: The correct answer is **A) 1**. Systems of linear equations can be solved by substitution (expressing one variable in terms of the other and substituting) or elimination (adding/subtracting equations to cancel a variable). Applying either method to this system yields the solution 1.

QUESTION 40

If $f(x) = 3x^2 - 7x + 2$, what is $f(-1)$?

A) −8

B) 12

C) 2

D) 8

Correct Answer: A) −8

Explanation: The correct answer is **A) −8**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives −8.

QUESTION 41

A right triangle has legs measuring 9 cm and 12 cm. What is the length of the hypotenuse?

A) 15 cm

B) Both A and C

C) √225 cm

D) 21 cm

Correct Answer: A) 15 cm

Explanation: The correct answer is **A) 15 cm**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 15 cm.

QUESTION 42

A cylindrical water tank has a radius of 4 feet and a height of 10 feet. What is the volume of the tank in cubic feet? (Use $\pi \approx 3.14$)

A) 251.2 cubic feet

B) 125.6 cubic feet

C) 502.4 cubic feet

D) 160 cubic feet

Correct Answer: A) 251.2 cubic feet

Explanation: The correct answer is **A) 251.2 cubic feet**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 251.2 cubic feet.

QUESTION 43

Two similar triangles have a scale factor of 3:5. If the area of the smaller triangle is 27 square inches, what is the area of the larger triangle?

A) 45 square inches

B) 135 square inches

C) 75 square inches

D) 225 square inches

Correct Answer: A) 45 square inches

Explanation: The correct answer is **A) 45 square inches**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 45 square inches.

QUESTION 44

A rectangular garden measures 24 feet by 18 feet. A uniform walkway of width w feet is added around the entire garden. Which expression represents the total area including the walkway?

A) (24 + 2w)(18 + 2w)

B) (24 + w)(18 + w)

C) 24(18) + 4w

D) 2(24 + w) + 2(18 + w)

Correct Answer: A) (24 + 2w)(18 + 2w)

Explanation: The correct answer is **A) (24 + 2w)(18 + 2w)**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to (24 + 2w)(18 + 2w).

QUESTION 45

Point A is located at (−3, 2) and point B is located at (5, −4). What is the distance between points A and B?

A) 8

B) √28

C) 10

D) 14

Correct Answer: A) 8

Explanation: The correct answer is **A) 8**. The midpoint formula is M = ((x₁+x₂)/2, (y₁+y₂)/2); the distance formula is d = sqrt((x₂-x₁)² + (y₂-y₁)²). Substituting the given coordinates into the appropriate formula produces 8.

QUESTION 46

A bag contains 5 red marbles, 3 blue marbles, and 7 green marbles. If one marble is drawn at random, what is the probability that it is NOT green?

A) 7/15

B) 2/3

C) 1/3

D) 8/15

Correct Answer: A) 7/15

Explanation: The correct answer is **A) 7/15**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 7/15.

QUESTION 47

The following data set represents test scores for 8 students: 62, 70, 74, 80, 86, 90, 94, 98. What is the interquartile range (IQR)?

A) 18

B) 20

C) 24

D) 16

Correct Answer: A) 18

Explanation: The correct answer is **A) 18**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 18.

QUESTION 48

A survey of 200 college students found that 120 drink coffee, 80 drink tea, and 40 drink both coffee and tea. What is the probability that a randomly selected student drinks coffee or tea?

A) 1.0

B) 0.80

C) 0.60

D) 0.40

Correct Answer: A) 1.0

Explanation: The correct answer is **A) 1.0**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1.0.

QUESTION 49

A data set has a mean of 50 and a standard deviation of 8. According to the empirical rule, approximately what percentage of data values fall between 34 and 66?

A) 68%

B) 50%

C) 99.7%

D) 95%

Correct Answer: A) 68%

Explanation: The correct answer is **A) 68%**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 68%.

QUESTION 50

A scatter plot shows the relationship between hours of study and exam scores for 30 students. The correlation coefficient is r = 0.87. Which statement best interprets this value?

A) There is a strong positive linear relationship between study hours and exam scores

B) There is a weak negative relationship between study hours and exam scores

C) Study hours cause higher exam scores

D) There is no significant relationship between the variables

Correct Answer: A) There is a strong positive linear relationship between study hours and exam scores

Explanation: The correct answer is **A) There is a strong positive linear relationship between study hours and exam scores**. Scatter plots show the relationship between two variables. A positive correlation means both increase together; a negative correlation means one increases as the other decreases; no correlation means no discernible pattern. Examining the trend in this scatter plot indicates There is a strong positive linear relationship between study hours and exam scores.

QUESTION 51

TSIA2 Simulated Exam 4 - 2026

A) Should participation in community service be a mandatory requirement for high school graduation? Community service programs have become increasingly common in American high schools, with some districts requiring students to complete a set number of service hours before receiving their diplomas. Supporters believe these requirements build character, civic responsibility, and empathy in young people. Opponents argue that mandatory volunteerism is a contradiction in terms and that forced service diminishes the genuine spirit of helping others. Write a persuasive essay in which you take a clear position on whether community service should be required for high school graduation. Support your argument with specific reasons, examples, and evidence.

B) Suggested thesis: Community service requirements for graduation [should/should not] be mandatory because [reason 1], [reason 2], and [reason 3]. Students may argue for mandatory service by citing character development, college application advantages, and exposure to diverse communities, or argue against by citing the paradox of forced volunteerism, equity concerns for working students, and the importance of intrinsic motivation.

C) Key supporting points: (1) FOR — Mandatory service exposes students to needs beyond their immediate experience, fostering empathy and civic awareness that classroom instruction alone cannot achieve; (2) AGAINST — Requiring community service disproportionately burdens students who already work part-time jobs to support their families, creating an equity issue; (3) BALANCED — A compromise approach might offer service-learning courses that integrate community engagement with academic credit, making the experience meaningful rather than perfunctory.

D) Rubric focus areas: (1) Clear and arguable thesis statement with a definitive position; (2) Well-organized body paragraphs with distinct supporting reasons; (3) Use of specific examples or evidence rather than vague generalizations; (4) Acknowledgment and rebuttal of counterarguments; (5) Formal academic tone with varied sentence structure; (6) Strong conclusion that reinforces the thesis without mere repetition.

Correct Answer: A) Should participation in community service be a mandatory requirement for high school graduation? Community service programs have become increasingly common in American high schools, with some districts requiring students to complete a set number of service hours before receiving their diplomas. Supporters believe these requirements build character, civic responsibility, and empathy in young people. Opponents argue that mandatory volunteerism is a contradiction in terms and that forced service diminishes the genuine spirit of helping others. Write a persuasive essay in which you take a clear position on whether community service should be required for high school graduation. Support your argument with specific reasons, examples, and evidence.

Explanation: The correct answer is **A) Should participation in community service be a mandatory requirement for high school graduation? Community service programs have become increasingly common in American high schools, with some districts requiring students to complete a set number of service hours before receiving their diplomas. Supporters believe these requirements build character, civic responsibility, and empathy in young people. Opponents argue that mandatory volunteerism is a contradiction in terms and that forced service diminishes the genuine spirit of helping others. Write a persuasive essay in which you take a clear position on whether community service should be required for high school graduation. Support your argument with specific reasons, examples, and evidence.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

FULL CRC EXAM

TSIA2 Simulated Exam 5 — 2026

50 Questions — Answer Key with Explanations

QUESTION 1

Read the following passage. // Marisol pressed her forehead against the bus window, watching the city dissolve into flat brown fields. She had promised herself she would not look back, yet every mile felt like a thread being pulled from a sweater she was still wearing. Her grandmother's voice echoed in her mind: 'The roots of a mesquite tree grow twice as deep as the tree is tall.' Marisol had always thought the saying was about stubbornness, but now, hurtling toward a university five hundred miles away, she understood it differently. Depth was not about refusing to move; it was about carrying the ground with you wherever you went. She opened her notebook and began to sketch the skyline she was leaving behind, pressing hard enough to emboss the next page. // What is the primary effect of the simile "every mile felt like a thread being pulled from a sweater she was still wearing"?

A) It indicates that the bus ride is damaging her clothing.

B) It suggests that distance is gradually unraveling her sense of identity and belonging.

C) It implies Marisol is physically cold during the journey.

D) It shows that Marisol regrets choosing to attend college.

Correct Answer: A) It indicates that the bus ride is damaging her clothing.

Explanation: The correct answer is **A) It indicates that the bus ride is damaging her clothing.**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'it indicates that the bus ride is damaging her clothing.'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 2

Based on the passage, how does Marisol's understanding of her grandmother's saying change?

A) She realizes the saying is meaningless.

B) She concludes that mesquite trees are a symbol of failure.

C) She reinterprets it to mean that one's origins remain part of you even as you move forward.

D) She decides stubbornness is actually a virtue.

Correct Answer: A) She realizes the saying is meaningless.

Explanation: The correct answer is **A) She realizes the saying is meaningless.**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 3

What does the detail about Marisol 'pressing hard enough to emboss the next page' most likely symbolize?

A) Her desire to leave a lasting impression of her past as she enters a new chapter.

B) Her frustration with the quality of her notebook.

C) Her nervous habit of pressing too hard when she draws.

D) Her intention to share the sketch with her grandmother.

Correct Answer: A) Her desire to leave a lasting impression of her past as she enters a new chapter.

Explanation: The correct answer is **A) Her desire to leave a lasting impression of her past as she enters a new chapter.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 4

Which of the following best describes the narrative point of view in this passage?

A) First person, told by Marisol

B) Second person, addressing the reader directly

C) Third person limited, focused on Marisol's thoughts and perceptions

D) Third person omniscient, revealing the thoughts of multiple characters

Correct Answer: A) First person, told by Marisol

Explanation: The correct answer is **A) First person, told by Marisol**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 5

Read the following passage. // Urban heat islands occur when cities replace natural land cover with pavement, buildings, and other surfaces that absorb and retain heat. According to the Environmental Protection Agency, daytime temperatures in urban areas can be 1 to 7 degrees Fahrenheit higher than in surrounding rural areas, and nighttime temperatures can be as much as 5 degrees higher. The consequences extend beyond discomfort: higher temperatures increase energy consumption for cooling, elevate emissions of air pollutants and greenhouse gases, and exacerbate heat-related illness, particularly among elderly and low-income populations. Cities such as Los Angeles and Phoenix have begun deploying cool-roof programs and expanding urban tree canopies. A 2024 study in Nature Climate Change found that increasing tree cover by just 10 percent in dense urban neighborhoods reduced local surface temperatures by an average of 2.3 degrees Fahrenheit during peak summer months. // Which of the following best states the central idea of the passage?

A) Urban heat islands are an inevitable and unsolvable consequence of modern city design.

B) The EPA has mandated that all cities adopt cool-roof programs immediately.

C) Planting trees is the only effective solution to combat rising urban temperatures.

D) Urban heat islands raise temperatures in cities, causing health and environmental problems, but mitigation strategies show measurable results.

Correct Answer: A) Urban heat islands are an inevitable and unsolvable consequence of modern city design.

Explanation: The correct answer is **A) Urban heat islands are an inevitable and unsolvable consequence of modern city design.**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Urban heat islands are an inevitable and unsolvable consequence of modern city design.' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 6

The author includes the statistic from the 2024 Nature Climate Change study primarily to —

A) argue that rural areas are cooler than cities

B) suggest that 10 percent tree cover is the minimum required by federal law

C) provide quantitative evidence that increasing tree cover effectively reduces urban temperatures

D) criticize cities that have not adopted tree-planting programs

Correct Answer: A) argue that rural areas are cooler than cities

Explanation: The correct answer is **A) argue that rural areas are cooler than cities**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 7

According to the passage, which populations are most vulnerable to the effects of urban heat islands?

A) College students and young professionals

B) Tourists visiting from rural areas

C) Elderly and low-income populations

D) Construction workers and farmers

Correct Answer: A) College students and young professionals

Explanation: The correct answer is **A) College students and young professionals**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 8

What organizational pattern does the author primarily use in this passage?

A) Chronological order of historical events

B) Problem and solution

C) Compare and contrast between two cities

D) Narrative with flashbacks

Correct Answer: A) Chronological order of historical events

Explanation: The correct answer is **A) Chronological order of historical events**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 9

Read the following passage. // Opponents of universal basic income argue that providing unconditional cash payments will discourage people from working. However, data from pilot programs in Stockton, California, and Finland tell a different story. In Stockton's SEED program, recipients who received $500 per month actually increased their full-time employment rate from 28 percent to 40 percent within one year. Finland's two-year experiment showed that recipients experienced lower stress levels and greater confidence in job-seeking, even though overall employment rates remained similar to the control group. Critics also contend that UBI is fiscally irresponsible, yet economists at the Roosevelt Institute have modeled scenarios in which a modest UBI funded through progressive taxation could grow the GDP by 12.5 percent over eight years. The evidence suggests that UBI does not create dependency; rather, it provides a stable platform from which individuals can pursue education, entrepreneurship, and more meaningful employment. // What is the author's primary claim in this passage?

A) Universal basic income is too expensive for any government to implement.

B) UBI pilot programs have failed in every country where they have been tested.

C) Finland's UBI experiment was more successful than Stockton's program.

D) Universal basic income does not create dependency and can lead to positive economic and personal outcomes.

Correct Answer: A) Universal basic income is too expensive for any government to implement.

Explanation: The correct answer is **A) Universal basic income is too expensive for any government to implement.**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Universal basic income is too expensive for any government to implement.', making it the best-supported inference over the other options.

QUESTION 10

Which of the following best describes the author's strategy for addressing the counterargument that UBI discourages work?

A) The author dismisses the counterargument without providing evidence.

B) The author shifts the discussion to a completely unrelated topic.

C) The author agrees that UBI reduces employment but argues the trade-off is acceptable.

D) The author presents empirical data from pilot programs that contradict the claim.

Correct Answer: A) The author dismisses the counterargument without providing evidence.

Explanation: The correct answer is **A) The author dismisses the counterargument without providing evidence.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'The author dismisses the counterargument without providing evidence.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 11

The reference to the Roosevelt Institute's economic modeling serves to —

A) prove that UBI has already been implemented nationwide

B) suggest that economists universally support UBI

C) demonstrate that progressive taxation is unconstitutional

D) counter the argument that UBI is fiscally irresponsible by showing potential GDP growth

Correct Answer: A) prove that UBI has already been implemented nationwide

Explanation: The correct answer is **A) prove that UBI has already been implemented nationwide**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives prove that UBI has already been implemented nationwide.

QUESTION 12

Which word best describes the author's tone throughout this passage?

A) Hostile

B) Indifferent

C) Humorous

D) Persuasive and evidence-based

Correct Answer: A) Hostile

Explanation: The correct answer is **A) Hostile**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'hostile' as the dominant tone.

QUESTION 13

Read the following poem. // 'Cartography of Silence' // I have mapped every room I've left— / the kitchen where flour dusted the counter like snow, / the porch where the wind edited our conversations, / the hallway whose echo outlasted its voices. / Each departure added a legend to my atlas: / a dotted line for promises unkept, / a solid border where forgiveness stopped. / Now I sit with the pages spread before me, / tracing routes I cannot travel twice, / and wonder if home is a coordinate / or merely the direction I keep facing. // The extended metaphor of cartography in this poem primarily serves to —

A) describe the speaker's career as a professional mapmaker

B) represent the speaker's emotional process of cataloging and reflecting on past experiences and relationships

C) argue that geography is more important than personal relationships

D) demonstrate that the speaker is lost and needs physical directions

Correct Answer: A) describe the speaker's career as a professional mapmaker

Explanation: The correct answer is **A) describe the speaker's career as a professional mapmaker**. The midpoint formula is $M = ((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is $d = \text{sqrt}((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces describe the speaker's career as a professional mapmaker.

QUESTION 14

What does the line "a solid border where forgiveness stopped" most likely mean?

A) The speaker built a physical wall around a property.

B) There is a definitive boundary marking the limit of the speaker's ability or willingness to forgive.

C) The speaker prefers solid borders over dotted lines on maps.

D) Forgiveness is a geographical concept related to national borders.

Correct Answer: A) The speaker built a physical wall around a property.

Explanation: The correct answer is **A) The speaker built a physical wall around a property.**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of The speaker built a physical wall around a property..

QUESTION 15

The final question of the poem — whether home is 'a coordinate or merely the direction I keep facing' — suggests that the speaker —

A) plans to use GPS technology to find home

B) is uncertain whether home is a fixed place or a persistent emotional orientation

C) has already decided that home does not exist

D) prefers traveling to staying in one location

Correct Answer: A) plans to use GPS technology to find home

Explanation: The correct answer is **A) plans to use GPS technology to find home**. The midpoint formula is M = $((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is d = $\text{sqrt}((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces plans to use GPS technology to find home.

QUESTION 16

Read the following passage. // Microplastics—fragments smaller than five millimeters—have been detected in human blood, lung tissue, and placental samples. A 2025 study published in The Lancet Planetary Health estimated that the average person ingests roughly five grams of plastic per week, equivalent to the weight of a credit card. While researchers have confirmed that microplastics can cross biological barriers, the long-term health effects remain under investigation. Some laboratory studies on animal models have linked microplastic exposure to inflammation, hormonal disruption, and reduced fertility, but scientists caution against extrapolating animal data directly to humans without large-scale epidemiological studies. Policymakers face a challenge: should regulations be tightened now based on the precautionary principle, or should action wait until definitive human health data are available? // The author's primary purpose in this passage is to —

A) convince readers to stop using all plastic products immediately

B) celebrate the scientific community for solving the microplastics crisis

C) argue that animal studies are unreliable and should be disregarded

D) present the current state of knowledge about microplastics in the human body and the regulatory dilemma that arises from incomplete evidence

Correct Answer: A) convince readers to stop using all plastic products immediately

Explanation: The correct answer is **A) convince readers to stop using all plastic products immediately**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 17

The comparison of weekly plastic ingestion to the weight of a credit card is used to —

A) exaggerate the danger of microplastics beyond what research supports

B) promote credit card companies

C) make an abstract statistic tangible and relatable for the reader

D) suggest that credit cards are made of edible material

Correct Answer: A) exaggerate the danger of microplastics beyond what research supports

Explanation: The correct answer is **A) exaggerate the danger of microplastics beyond what research supports**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 18

Select the sentence that is punctuated correctly.

A) The committee announced, that the deadline would be extended by two weeks.

B) The committee announced that the deadline, would be extended by two weeks.

C) The committee announced that the deadline would be extended by two weeks.

D) The committee, announced that the deadline would be extended by two weeks.

Correct Answer: A) The committee announced, that the deadline would be extended by two weeks.

Explanation: The correct answer is **A) The committee announced, that the deadline would be extended by two weeks.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

Which revision best corrects the following sentence? "Running through the park on a sunny afternoon the dog chased its tail."

A) Running through the park on a sunny afternoon, the dog chased its tail.

B) The dog chased its tail, running through the park on a sunny afternoon.

C) Running through the park on a sunny afternoon; the dog chased its tail.

D) Both A and B are acceptable revisions.

Correct Answer: A) Running through the park on a sunny afternoon, the dog chased its tail.

Explanation: The correct answer is **A) Running through the park on a sunny afternoon, the dog chased its tail.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 20

Which sentence demonstrates correct subject-verb agreement?

A) The group of scientists was publishing its results next month.

B) The group of scientists were publishing their results next month.

C) The group of scientists are publishing their result next month.

D) The group of scientists have been publishes their results next month.

Correct Answer: A) The group of scientists was publishing its results next month.

Explanation: The correct answer is **A) The group of scientists was publishing its results next month.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option A is grammatically correct.

QUESTION 21

In the sentence "The mayor, along with several council members, are expected to attend the ribbon-cutting ceremony," what is the error?

A) The word "along" should be replaced with "beside."

B) The verb "are" should be "is" because the subject is "The mayor," a singular noun.

C) The phrase "ribbon-cutting" should not be hyphenated.

D) There is no error in this sentence.

Correct Answer: A) The word "along" should be replaced with "beside."

Explanation: The correct answer is **A) The word "along" should be replaced with "beside."**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 22

Choose the most effective transition to connect these two sentences: 'The company reported record profits in the third quarter. _____, it announced plans to lay off 200 employees.'

A) As a result,

B) Furthermore,

C) Nevertheless,

D) Similarly,

Correct Answer: A) As a result,

Explanation: The correct answer is **A) As a result,**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option A best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 23

Which of the following sentences uses a semicolon correctly?

A) The trail was steep; and covered in loose gravel.

B) The recipe calls for; flour, sugar, and butter.

C) We visited Paris; London, and Rome on our trip.

D) She finished the marathon in record time; she had trained for over a year.

Correct Answer: A) The trail was steep; and covered in loose gravel.

Explanation: The correct answer is **A) The trail was steep; and covered in loose gravel.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 24

Which revision eliminates the redundancy in this sentence? "The autobiography of her life was published posthumously after her death."

A) The autobiography of her life was published after her death.

B) Her autobiography was published posthumously.

C) The autobiography of her life was published posthumously.

D) Her life autobiography was published posthumously after she died.

Correct Answer: A) The autobiography of her life was published after her death.

Explanation: The correct answer is **A) The autobiography of her life was published after her death.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 25

Which sentence correctly uses parallel structure?

A) The internship requires researching topics, to write reports, and presenting findings.

B) The internship requires research of topics, to write reports, and the presentation of findings.

C) The internship requires to research topics, writing reports, and to present findings.

D) The internship requires researching topics, writing reports, and presenting findings.

Correct Answer: A) The internship requires researching topics, to write reports, and presenting findings.

Explanation: The correct answer is **A) The internship requires researching topics, to write reports, and presenting findings.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option A maintains consistent grammatical form across all listed or compared elements.

QUESTION 26

Read the passage and choose the best replacement for the underlined portion. "The professor explained the theory clear and with great detail."

A) clearly and with great detail

B) clear and in great detail

C) clearly and in great detailed

D) with clarity and great detailed

Correct Answer: A) clearly and with great detail

Explanation: The correct answer is **A) clearly and with great detail**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 27

Which sentence correctly uses an apostrophe?

A) The three dog's bowls were all empty by noon.

B) The three dogs' bowls were all empty by noon.

C) The three dogs bowl's were all empty by noon.

D) The three dog's bowl's were all empty by noon.

Correct Answer: A) The three dog's bowls were all empty by noon.

Explanation: The correct answer is **A) The three dog's bowls were all empty by noon.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 28

Which of the following is a complete sentence (not a fragment or run-on)?

A) The library offers free workshops on digital literacy, and they are held every Saturday.

B) The library offers free workshops on digital literacy they are held every Saturday.

C) Although the library offers free workshops on digital literacy.

D) Offering free workshops on digital literacy every Saturday at the library.

Correct Answer: A) The library offers free workshops on digital literacy, and they are held every Saturday.

Explanation: The correct answer is **A) The library offers free workshops on digital literacy, and they are held every Saturday.**. A sentence fragment lacks a subject, a predicate, or both; a run-on joins independent clauses without proper punctuation or a coordinating conjunction. Option A is the only choice that forms a grammatically complete, correctly punctuated sentence.

QUESTION 29

Which revision best improves the clarity of this sentence? "The policy change was implemented by the board, and it was controversial, and many employees disagreed with it."

A) The board implemented a controversial policy change that many employees opposed.

B) The policy change was implemented by the board and it was controversial and many employees disagreed.

C) Implemented by the board, the controversial policy change, and many employees disagreed with it.

D) The board's policy change was implemented, it was controversial, many employees disagreed.

Correct Answer: A) The board implemented a controversial policy change that many employees opposed.

Explanation: The correct answer is **A) The board implemented a controversial policy change that many employees opposed.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 30

Choose the correct word to complete the sentence: "The new regulation will _____ all businesses with more than fifty employees."

A) effect

B) affect

C) affective

D) effecting

Correct Answer: A) effect

Explanation: The correct answer is **A) effect**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 31

A landscaper charges $45 for the first hour and $30 for each additional hour. If a client's bill was $225, how many total hours did the landscaper work?

A) 5

B) 6

C) 7

D) 8

Correct Answer: A) 5

Explanation: The correct answer is **A) 5**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 32

A store marks up wholesale prices by 60%. During a clearance sale, the store offers 25% off the marked-up price. If an item's wholesale cost is $80, what is the final sale price?

A) $96.00

B) $102.00

C) $92.80

D) $76.80

Correct Answer: A) $96.00

Explanation: The correct answer is **A) $96.00**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 33

An investment of $5,000 earns 4.5% simple interest annually. How much total interest is earned after 6 years?

A) $1,350

B) $1,125

C) $1,500

D) $1,200

Correct Answer: A) $1,350

Explanation: The correct answer is **A) $1,350**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 34

A recipe that serves 8 people requires 2.5 cups of rice. How many cups of rice are needed to serve 28 people?

A) 8.75

B) 8.0

C) 7.5

D) 9.0

Correct Answer: A) 8.75

Explanation: The correct answer is **A) 8.75**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 35

A car's fuel efficiency is 32 miles per gallon. If gasoline costs $3.85 per gallon, what is the approximate fuel cost for a 480-mile trip?

A) $61.50

B) $57.75

C) $54.25

D) $49.90

Correct Answer: A) $61.50

Explanation: The correct answer is **A) $61.50**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 36

Solve for x: 3(2x - 5) + 4 = 7x - 8

A) x = 3

B) x = -3

C) x = -1

D) x = 1

Correct Answer: A) x = 3

Explanation: The correct answer is **A) x = 3**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = 3.

QUESTION 37

Factor completely: $6x^2 + 13x - 5$

A) (6x - 1)(x + 5)

B) (3x + 5)(2x - 1)

C) (2x + 5)(3x - 1)

D) (3x - 5)(2x + 1)

Correct Answer: A) (6x - 1)(x + 5)

Explanation: The correct answer is **A) (6x - 1)(x + 5)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields (6x - 1)(x + 5).

QUESTION 38

Which equation represents a line that passes through the point (4, -2) and has a slope of -3/2?

A) y = -3/2 x + 4

B) y = -3/2 x - 2

C) y = -3/2 x + 8

D) y = -3/2 x + 2

Correct Answer: A) y = -3/2 x + 4

Explanation: The correct answer is **A) y = -3/2 x + 4**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option A.

QUESTION 39

Simplify: $(4x^3y^2)(-2x^2y^5)$

A) $-8x^6y^{10}$

B) $8x^5y^7$

C) $-8x^5y^7$

D) $8x^6y^{10}$

Correct Answer: A) $-8x^6y^{10}$

Explanation: The correct answer is **A) $-8x^6y^{10}$**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to $-8x^6y^{10}$.

QUESTION 40

A theater sells adult tickets for $12 and student tickets for $7. If 340 tickets were sold for a total of $3,230, how many student tickets were sold?

A) 150

B) 170

C) 190

D) 200

Correct Answer: A) 150

Explanation: The correct answer is **A) 150**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 41

A rectangular garden has a perimeter of 54 meters. If the length is 3 meters more than twice the width, what is the area of the garden?

A) 152 sq m

B) 160 sq m

C) 168 sq m

D) 176 sq m

Correct Answer: A) 152 sq m

Explanation: The correct answer is **A) 152 sq m**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 152 sq m.

QUESTION 42

A cylindrical water tank has a radius of 5 feet and a height of 12 feet. What is its volume in cubic feet? (Use $\pi \approx 3.14$)

A) 942 cu ft

B) 900 cu ft

C) 876 cu ft

D) 1,020 cu ft

Correct Answer: A) 942 cu ft

Explanation: The correct answer is **A) 942 cu ft**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 942 cu ft.

QUESTION 43

In a right triangle, one leg measures 9 cm and the hypotenuse measures 15 cm. What is the length of the other leg?

A) 12 cm

B) 11 cm

C) 10 cm

D) 13 cm

Correct Answer: A) 12 cm

Explanation: The correct answer is **A) 12 cm**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 12 cm.

QUESTION 44

Two similar triangles have corresponding sides in a ratio of 3:7. If the area of the smaller triangle is 27 square inches, what is the area of the larger triangle?

A) 63 sq in

B) 147 sq in

C) 189 sq in

D) 441 sq in

Correct Answer: A) 63 sq in

Explanation: The correct answer is **A) 63 sq in**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 63 sq in.

QUESTION 45

A circle has a central angle of 150°. If the radius of the circle is 6 inches, what is the length of the arc intercepted by this angle? (Use $\pi \approx 3.14$)

A) 12.56 in

B) 15.71 in

C) 18.85 in

D) 9.42 in

Correct Answer: A) 12.56 in

Explanation: The correct answer is **A) 12.56 in**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 12.56 in.

QUESTION 46

A dataset contains the values: 11, 16, 18, 22, 25, 27, 28, 32, 38. What is the interquartile range (IQR)?

A) 11

B) 13

C) 14

D) 12

Correct Answer: A) 11

Explanation: The correct answer is **A) 11**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 11.

QUESTION 47

A bag contains 5 red marbles, 8 blue marbles, and 7 green marbles. If two marbles are drawn at random without replacement, what is the probability that both are blue?

A) 14/95

B) 56/380

C) 8/57

D) 28/190

Correct Answer: A) 14/95

Explanation: The correct answer is **A) 14/95**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 14/95.

QUESTION 48

In a normally distributed dataset with a mean of 72 and a standard deviation of 6, approximately what percentage of values fall between 60 and 84?

A) 95%

B) 68%

C) 99.7%

D) 90%

Correct Answer: A) 95%

Explanation: The correct answer is **A) 95%**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 95%.

QUESTION 49

A survey of 200 college students found that 120 prefer online classes, 60 prefer in-person classes, and 20 have no preference. What is the probability that a randomly selected student from this survey prefers in-person classes?

A) 0.20

B) 0.30

C) 0.40

D) 0.60

Correct Answer: A) 0.20

Explanation: The correct answer is **A) 0.20**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 0.20.

QUESTION 50

A scatterplot shows a strong negative linear correlation between hours of television watched per day and GPA. The line of best fit is y = -0.15x + 3.8. Based on the model, what GPA would be predicted for a student who watches 6 hours of television per day?

A) 2.70

B) 2.80

C) 2.90

D) 3.10

Correct Answer: A) 2.70

Explanation: The correct answer is **A) 2.70**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 2.70.

FULL CRC EXAM

TSIA2 Simulated Exam 6 — 2026

50 Questions — Answer Key with Explanations

QUESTION 1

Read the following passage and answer the question. "The discovery of high-temperature superconductors in 1986 revolutionized materials science. Unlike conventional superconductors, which require cooling to near absolute zero, these ceramic compounds exhibit zero electrical resistance at temperatures achievable with liquid nitrogen. Researchers worldwide raced to understand the mechanism behind this phenomenon, yet decades later, a complete theoretical explanation remains elusive. What is clear is that the crystal structure of these materials—layers of copper oxide separated by other elements—plays a crucial role. The practical applications, from lossless power transmission to magnetic levitation trains, continue to drive billions of dollars in research funding." What is the primary purpose of this passage?

A) A) To argue that superconductor research funding should be increased

B) B) To provide an overview of high-temperature superconductors and their significance

C) C) To compare ceramic and metallic superconductors in detail

D) D) To explain why theoretical physics has failed to explain superconductivity

Correct Answer: A) A) To argue that superconductor research funding should be increased

Explanation: The correct answer is **A) A) To argue that superconductor research funding should be increased**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 2

Based on the passage above, what can be inferred about conventional superconductors?

A) A) They were discovered after high-temperature superconductors

B) B) They require extremely low temperatures to function

C) C) They are made from ceramic compounds

D) D) They have no practical applications

Correct Answer: A) A) They were discovered after high-temperature superconductors

Explanation: The correct answer is **A) A) They were discovered after high-temperature superconductors**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) They were discovered after high-temperature superconductors', making it the best-supported inference over the other options.

QUESTION 3

Read the following passage and answer the question. "Urban beekeeping has surged in popularity over the past decade, with rooftop hives appearing atop hotels, restaurants, and apartment buildings in cities from Paris to Tokyo. Proponents argue that city bees face fewer pesticide exposures than their rural counterparts and benefit from the diverse flowering plants found in parks and gardens. Critics counter that concentrating too many hives in a small area creates competition for limited nectar sources, potentially harming native pollinators like bumblebees and solitary bees. Recent studies from University College London suggest that while individual urban hives thrive, the cumulative effect of widespread urban beekeeping may indeed reduce wildflower visitation by native species." Which statement best captures the central tension presented in the passage?

A) A) Urban beekeeping is more profitable than rural beekeeping

B) B) While urban beekeeping benefits honeybees, it may negatively impact native pollinators

C) C) Scientists disagree about whether bees can survive in cities

D) D) Hotels and restaurants exploit bees for marketing purposes

Correct Answer: A) A) Urban beekeeping is more profitable than rural beekeeping

Explanation: The correct answer is **A) A) Urban beekeeping is more profitable than rural beekeeping**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) Urban beekeeping is more profitable than rural beekeeping', making it the best-supported inference over the other options.

QUESTION 4

In the urban beekeeping passage, the word 'cumulative' most nearly means:

A) A) Combined and increasing over time

B) B) Individual

C) C) Temporary

D) D) Unpredictable

Correct Answer: A) A) Combined and increasing over time

Explanation: The correct answer is **A) A) Combined and increasing over time**. When determining word meaning from context, look at the surrounding sentences for synonyms, antonyms, or examples that clarify the word's usage. The context in this passage indicates the word means 'a) combined and increasing over time', which fits the logical flow of the passage.

QUESTION 5

Read the following passage and answer the question. "In 1903, Marie Curie became the first woman to win a Nobel Prize, sharing the Physics prize with her husband Pierre and Henri Becquerel for their work on radioactivity. Eight years later, she won an unprecedented second Nobel Prize, this time in Chemistry, for isolating pure radium. Despite these achievements, the French Academy of Sciences refused her membership in 1911, and newspapers focused more on her personal life than her scientific contributions. Curie's laboratory notebooks remain so radioactive that researchers must wear protective clothing to consult them, a testament to the physical dangers she endured in pursuit of knowledge." The detail about Curie's radioactive notebooks primarily serves to:

A) A) Illustrate the personal sacrifices Curie made for her research

B) B) Warn modern scientists about laboratory safety

C) C) Prove that Curie was careless with dangerous materials

D) D) Explain why her research is no longer relevant today

Correct Answer: A) A) Illustrate the personal sacrifices Curie made for her research

Explanation: The correct answer is **A) A) Illustrate the personal sacrifices Curie made for her research**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 6

Read the following passage and answer the question. "The Svalbard Global Seed Vault, carved into a mountainside on a remote Norwegian archipelago, stores duplicate samples of seeds from gene banks worldwide. Designed to withstand both natural and human-made disasters, the vault operates as an insurance policy for global agriculture. Permafrost and thick rock provide natural freezing, while a refrigeration system maintains the interior at negative eighteen degrees Celsius. As of 2025, the vault holds over 1.3 million seed samples representing more than 6,000 plant species. When civil war destroyed seed banks in Syria and the Philippines suffered typhoon damage to its collections, the Svalbard vault provided replacement samples—fulfilling its intended purpose." What organizational pattern does this passage primarily use?

A) A) Chronological order

B) B) Compare and contrast

C) C) Problem and solution exclusively

D) D) Description followed by examples

Correct Answer: A) A) Chronological order

Explanation: The correct answer is **A) A) Chronological order**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 7

Read the following passage and answer the question. "Sleep scientists have long debated why humans dream. Sigmund Freud proposed that dreams represent unconscious desires, while activation-synthesis theory suggests dreams are merely the brain's attempt to make sense of random neural firing during REM sleep. More recently, the threat simulation theory posits that dreaming evolved as a rehearsal mechanism for dangerous situations, allowing organisms to practice responses without real-world consequences. A 2024 study published in Nature Neuroscience offered a new perspective: dreams may function as a form of 'overnight therapy,' helping the brain process emotional experiences by replaying them in altered contexts, thereby reducing their emotional intensity." Which of the following best describes the structure of this passage?

A) A) A single theory is presented and defended with evidence

B) B) Two opposing viewpoints are compared and one is declared superior

C) C) Multiple theories are presented in roughly chronological order

D) D) A question is posed and answered definitively

Correct Answer: A) A) A single theory is presented and defended with evidence

Explanation: The correct answer is **A) A) A single theory is presented and defended with evidence**. Text structure describes how a writer arranges information — common patterns include cause/effect, compare/contrast, problem/solution, and chronological order. The sequence of ideas and transitional language in this passage most clearly reflects 'a) a single theory is presented and defended with evidence'.

QUESTION 8

Based on the dreams passage, the 2024 Nature Neuroscience study differs from the threat simulation theory primarily in that it focuses on:

A) A) Emotional processing rather than danger rehearsal

B) B) Random neural firing rather than purposeful brain activity

C) C) Unconscious desires rather than evolutionary adaptation

D) D) Physical health rather than mental health

Correct Answer: A) A) Emotional processing rather than danger rehearsal

Explanation: The correct answer is **A) A) Emotional processing rather than danger rehearsal**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 9

Read the following passage and answer the question. "When the Interstate Highway System was authorized by the Federal Aid Highway Act of 1956, proponents celebrated it as a triumph of engineering and national unity. However, the highways' routes through urban areas disproportionately demolished Black and Latino neighborhoods, displacing hundreds of thousands of residents and severing communities that had thrived for generations. In cities like Miami, Syracuse, and Detroit, entire commercial districts were razed. Today, some municipalities are reconsidering these decisions: Rochester, New York, removed a section of its inner loop expressway and replaced it with mixed-use development, while proposals in other cities aim to cap or remove urban highways entirely." The author's tone toward the Interstate Highway System is best described as:

A) A) Wholly celebratory

B) B) Indifferent and detached

C) C) Critically nuanced, acknowledging both achievement and harm

D) D) Nostalgic for the pre-highway era

Correct Answer: A) A) Wholly celebratory

Explanation: The correct answer is **A) A) Wholly celebratory**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'a) wholly celebratory' as the dominant tone.

QUESTION 10

Read the following poem excerpt and answer the question. "The fog does not arrive on schedule— it seeps beneath the door like doubt, filling the room with what we cannot name. We set the table anyway, place chairs for those who may not come, and call it faith." The fog in this poem most likely symbolizes:

A) A) Pleasant weather that enhances the mood

B) B) Uncertainty or emotional ambiguity

C) C) A literal weather event disrupting dinner plans

D) D) Anger toward absent guests

Correct Answer: A) A) Pleasant weather that enhances the mood

Explanation: The correct answer is **A) A) Pleasant weather that enhances the mood**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to A) Pleasant weather that enhances the mood.

QUESTION 11

Read the following passage and answer the question. "Microplastics—fragments smaller than five millimeters—have been found in Arctic sea ice, deep ocean trenches, mountaintop snow, and human blood. A 2025 study detected microplastics in every sample of human placental tissue examined, raising concerns about prenatal exposure. While the health effects remain under investigation, laboratory studies show that microplastics can carry toxic chemicals, trigger inflammatory responses in cells, and cross biological barriers previously thought impermeable. The plastics industry emphasizes that real-world concentrations differ from laboratory conditions, but environmental scientists argue that chronic, low-level exposure may produce effects not captured in short-term studies." What rhetorical strategy does the opening sentence primarily employ?

A) A) Emotional appeal through personal anecdote

B) B) Establishing credibility through citation of a single authority

C) C) Accumulation of examples to convey the pervasiveness of the problem

D) D) Logical deduction from general principles to specific conclusions

Correct Answer: A) A) Emotional appeal through personal anecdote

Explanation: The correct answer is **A) A) Emotional appeal through personal anecdote**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 12

In the microplastics passage, the plastics industry's response functions primarily as:

A) A) A concession that undermines the passage's main argument

B) B) A counterargument that the author then implicitly challenges

C) C) An unrelated tangent that weakens the passage

D) D) A definitive rebuttal of the scientific findings

Correct Answer: A) A) A concession that undermines the passage's main argument

Explanation: The correct answer is **A) A) A concession that undermines the passage's main argument**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 13

Read the following passage and answer the question. "The concept of 'digital minimalism,' popularized by computer scientist Cal Newport, advocates for a philosophy of technology use in which one focuses online time on a small number of carefully selected activities that support personal values, while happily missing out on everything else. Unlike complete digital detoxes, which Newport considers unsustainable, digital minimalism encourages intentional engagement rather than abstinence. Practitioners often begin with a thirty-day reset period during which they eliminate optional technologies, then selectively reintroduce only those that pass a strict cost-benefit analysis." According to the passage, digital minimalism differs from a digital detox in that it:

A) A) Focuses on intentional, selective use rather than complete avoidance

B) B) Requires permanently abandoning all technology

C) C) Was developed by psychologists rather than computer scientists

D) D) Can only be practiced for thirty days

Correct Answer: A) A) Focuses on intentional, selective use rather than complete avoidance

Explanation: The correct answer is **A) A) Focuses on intentional, selective use rather than complete avoidance**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'A) Focuses on intentional, selective use rather than complete avoidance' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 14

Read the following passage and answer the question. "Indigenous fire management practices, sometimes called 'cultural burning,' have gained renewed attention as catastrophic wildfires intensify across the American West. For thousands of years, tribes such as the Karuk, Yurok, and Miwok used controlled, low-intensity burns to clear underbrush, promote new plant growth, and maintain habitat for game animals. Colonial suppression of these practices led to fuel accumulation in forests, ironically increasing the severity of uncontrolled fires. California's state government has recently begun collaborating with tribal practitioners, recognizing that their knowledge offers solutions that modern fire management alone has failed to provide." The passage implies that colonial fire suppression policies were:

A) A) Counterproductive, contributing to the very problem they aimed to prevent

B) B) Based on a thorough scientific understanding of forest ecology

C) C) Supported by Indigenous communities at the time

D) D) Effective until climate change made them obsolete

Correct Answer: A) A) Counterproductive, contributing to the very problem they aimed to prevent

Explanation: The correct answer is **A) A) Counterproductive, contributing to the very problem they aimed to prevent**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 15

Read the following paired passages and answer the question. Passage 1: "Remote work has democratized employment, allowing talented individuals in rural areas and developing nations to compete for positions previously available only to those living in expensive urban centers. Companies benefit from access to a global talent pool and reduced overhead costs." Passage 2: "The remote work revolution has eroded workplace culture and made it nearly impossible for junior employees to learn through the informal mentorship that occurs naturally in shared physical spaces. The loss of spontaneous collaboration—hallway conversations, whiteboard sessions, lunch meetings—cannot be replicated by scheduled video calls." Which statement best characterizes the relationship between these two passages?

A) A) Passage 2 provides evidence supporting Passage 1's claims

B) B) Both passages reach the same conclusion through different reasoning

C) C) Passage 1 addresses economic issues while Passage 2 addresses unrelated social issues

D) D) The passages present contrasting perspectives on the same phenomenon

Correct Answer: A) A) Passage 2 provides evidence supporting Passage 1's claims

Explanation: The correct answer is **A) A) Passage 2 provides evidence supporting Passage 1's claims**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 16

Read the following passage and answer the question. "Forensic genealogy—the use of consumer DNA databases to identify criminal suspects through their relatives—has solved hundreds of cold cases since 2018, including the capture of the Golden State Killer. Law enforcement uploads crime scene DNA to public genealogy platforms and traces family trees until they identify potential suspects. Civil liberties organizations have raised alarms: when one person submits DNA to a genealogy service, they effectively consent on behalf of every biological relative, none of whom agreed to participate in a law enforcement database. The technique also disproportionately identifies individuals of European descent, since those populations are overrepresented in consumer DNA databases." The passage presents forensic genealogy as:

A) A) An entirely positive advancement in criminal justice

B) B) A technique that only works for European-descent populations

C) C) A failed experiment that should be abandoned

D) D) A tool with demonstrated effectiveness but significant ethical concerns

Correct Answer: A) A) An entirely positive advancement in criminal justice

Explanation: The correct answer is **A) A) An entirely positive advancement in criminal justice**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 17

In the forensic genealogy passage, the phrase 'they effectively consent on behalf of every biological relative' highlights which ethical concern?

A) A) The involuntary inclusion of non-consenting individuals in searchable databases

B) B) The financial cost of genealogy services

C) C) The inaccuracy of DNA testing technology

D) D) The difficulty of building accurate family trees

Correct Answer: A) A) The involuntary inclusion of non-consenting individuals in searchable databases

Explanation: The correct answer is **A) A) The involuntary inclusion of non-consenting individuals in searchable databases**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 18

Select the sentence that is punctuated correctly.

A) A) The museum's newest exhibit, which features artifacts from ancient Mesopotamia will open next month.

B) B) The museum's newest exhibit, which features artifacts from ancient Mesopotamia, will open next month.

C) C) The museum's newest exhibit which features artifacts from ancient Mesopotamia, will open next month.

D) D) The museum's newest exhibit which features artifacts from ancient Mesopotamia will open next month.

Correct Answer: A) A) The museum's newest exhibit, which features artifacts from ancient Mesopotamia will open next month.

Explanation: The correct answer is **A) A) The museum's newest exhibit, which features artifacts from ancient Mesopotamia will open next month.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

Choose the option that correctly completes the sentence. Neither the CEO nor the board members _____ willing to approve the merger without additional due diligence.

A) A) was

B) B) is

C) C) were

D) D) has been

Correct Answer: A) A) was

Explanation: The correct answer is **A) A) was**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 20

Identify the sentence that contains a dangling modifier.

A) A) Walking through the botanical garden, the orchids caught Maria's attention.

B) B) After reviewing the evidence carefully, the jury reached a unanimous verdict.

C) C) Because the storm was approaching, the organizers canceled the outdoor concert.

D) D) The professor, who had published extensively, received a lifetime achievement award.

Correct Answer: A) A) Walking through the botanical garden, the orchids caught Maria's attention.

Explanation: The correct answer is **A) A) Walking through the botanical garden, the orchids caught Maria's attention.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 21

Which revision best improves the clarity of this sentence? Original: 'The company implemented the policy that was approved by the committee that oversees regulatory compliance that affects international operations.'

A) A) The company implemented the policy, and it was approved by the committee, and it oversees regulatory compliance, and it affects international operations.

B) B) The policy was implemented by the company from the committee for regulatory compliance for international operations.

C) C) International operations were affected by the policy that the company implemented after committee approval of regulatory compliance.

D) D) The company implemented the committee-approved regulatory compliance policy affecting international operations.

Correct Answer: A) A) The company implemented the policy, and it was approved by the committee, and it oversees regulatory compliance, and it affects international operations.

Explanation: The correct answer is **A) A) The company implemented the policy, and it was approved by the committee, and it oversees regulatory compliance, and it affects international operations.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 22

Choose the sentence that uses the semicolon correctly.

A) A) The experiment yielded unexpected results; which prompted the team to redesign their methodology.

B) B) The experiment yielded unexpected results; the team therefore redesigned their methodology.

C) C) The experiment yielded unexpected results; and the team redesigned their methodology.

D) D) The experiment; yielded unexpected results, the team redesigned their methodology.

Correct Answer: A) A) The experiment yielded unexpected results; which prompted the team to redesign their methodology.

Explanation: The correct answer is **A) A) The experiment yielded unexpected results; which prompted the team to redesign their methodology.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 23

Read the paragraph and choose the best transition to fill the blank. 'Coral reefs support approximately 25% of all marine species despite covering less than 1% of the ocean floor. _____, the economic value of reef ecosystems—through fishing, tourism, and coastal protection—exceeds $375 billion annually.'

A) A) Nevertheless

B) B) In contrast

C) C) Furthermore

D) D) Instead

Correct Answer: A) A) Nevertheless

Explanation: The correct answer is **A) A) Nevertheless**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'A) Nevertheless' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 24

Which sentence demonstrates correct parallel structure?

A) A) The internship program offers students opportunities to develop professional skills, networking with industry leaders, and they can earn academic credit.

B) B) The internship program offers students opportunities for professional skill development, networking with industry leaders, and they earn academic credit.

C) C) The internship program offers students developing professional skills, to network with industry leaders, and earning academic credit.

D) D) The internship program offers students opportunities to develop professional skills, to network with industry leaders, and to earn academic credit.

Correct Answer: A) A) The internship program offers students opportunities to develop professional skills, networking with industry leaders, and they can earn academic credit.

Explanation: The correct answer is **A) A) The internship program offers students opportunities to develop professional skills, networking with industry leaders, and they can earn academic credit.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option A maintains consistent grammatical form across all listed or compared elements.

QUESTION 25

Select the correct word to complete the sentence. The researcher's findings had a profound _____ on public health policy, leading to stricter regulations on industrial emissions.

A) A) affect

B) B) effectiveness

C) C) affectation

D) D) effect

Correct Answer: A) A) affect

Explanation: The correct answer is **A) A) affect**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 26

Which sentence correctly uses an apostrophe?

A) A) The three professor's offices were located on the fourth floor.

B) B) The three professors offices were located on the fourth floor.

C) C) The three professors' offices were located on the fourth floor.

D) D) The three professors's offices were located on the fourth floor.

Correct Answer: A) A) The three professor's offices were located on the fourth floor.

Explanation: The correct answer is **A) A) The three professor's offices were located on the fourth floor.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 27

Read the following draft paragraph and identify the sentence that should be removed to improve coherence. (1) The James Webb Space Telescope has transformed our understanding of the early universe. (2) Its infrared sensors can detect light from galaxies that formed just 300 million years after the Big Bang. (3) The Hubble Space Telescope was launched in 1990 and orbits Earth at an altitude of 340 miles. (4) These observations have challenged existing models of galaxy formation, suggesting that massive galaxies developed far earlier than previously theorized.

A) A) Sentence 1

B) B) Sentence 2

C) C) Sentence 3

D) D) Sentence 4

Correct Answer: A) A) Sentence 1

Explanation: The correct answer is **A) A) Sentence 1**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) Sentence 1', making it the best-supported inference over the other options.

QUESTION 28

Choose the option that correctly completes the sentence. The data _____ that renewable energy adoption rates have accelerated significantly since 2020, with solar installations alone increasing by 40%.

A) A) suggest

B) B) suggests

C) C) are suggesting

D) D) have suggested

Correct Answer: A) A) suggest

Explanation: The correct answer is **A) A) suggest**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 29

Which revision eliminates the redundancy in this sentence? Original: 'In my personal opinion, I believe that the final outcome of the experiment will ultimately result in a new discovery.'

A) A) I personally believe that the final outcome will ultimately yield discoveries.

B) B) In my opinion, the experiment will likely result in a new discovery.

C) C) In my personal opinion, the experiment's final outcome will ultimately result in something new.

D) D) I believe in my opinion that the outcome will ultimately result in a new discovery.

Correct Answer: A) A) I personally believe that the final outcome will ultimately yield discoveries.

Explanation: The correct answer is **A) A) I personally believe that the final outcome will ultimately yield discoveries.**.. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 30

Read the passage and select the best revision for the underlined portion. 'The city council voted to allocate $2.5 million toward the renovation of the historic downtown theater. [UNDERLINED: Being that the theater] had served as a cultural landmark for over a century, residents overwhelmingly supported the investment.'

A) A) Being that the theater

B) B) Due to the fact that the theater

C) C) The reason being is that the theater

D) D) Because the theater

Correct Answer: A) A) Being that the theater

Explanation: The correct answer is **A) A) Being that the theater**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'A) Being that the theater' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 31

A car's value depreciates by 18% each year. If the car was purchased for $32,000, what is its approximate value after 3 years?

A) A) $16,384

B) B) $18,022

C) C) $17,210

D) D) $17,649

Correct Answer: A) A) $16,384

Explanation: The correct answer is **A) A) $16,384**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 32

A recipe calls for 2¾ cups of flour to make 18 cookies. How many cups of flour are needed to make 54 cookies?

A) A) 7½ cups

B) B) 8 cups

C) C) 8¼ cups

D) D) 9 cups

Correct Answer: A) A) 7½ cups

Explanation: The correct answer is **A) A) 7½ cups**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 33

An investor puts $5,000 into an account earning 4.5% annual interest compounded quarterly. What is the value of the investment after 2 years? (Round to the nearest dollar.)

A) A) $5,450

B) B) $5,459

C) C) $5,468

D) D) $5,464

Correct Answer: A) A) $5,450

Explanation: The correct answer is **A) A) $5,450**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 34

A store offers a 25% discount on all items. After the discount, a 7% sales tax is applied. If a jacket originally costs $84, what is the final price?

A) A) $63.00

B) B) $65.10

C) C) $68.88

D) D) $67.41

Correct Answer: A) A) $63.00

Explanation: The correct answer is **A) A) $63.00**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 35

A water tank is being filled at a rate of 3.5 gallons per minute. If the tank currently holds 28 gallons and has a capacity of 150 gallons, how many minutes will it take to fill the tank completely?

A) A) 32.9 minutes

B) B) 34.9 minutes

C) C) 42.9 minutes

D) D) 36.6 minutes

Correct Answer: A) A) 32.9 minutes

Explanation: The correct answer is **A) A) 32.9 minutes**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to A) 32.9 minutes.

QUESTION 36

Solve for x: 5(2x - 3) - 4(x + 2) = 3x + 7

A) A) x = 15

B) B) x = 30

C) C) x = -10

D) D) x = 10

Correct Answer: A) A) x = 15

Explanation: The correct answer is **A) A) x = 15**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to A) x = 15.

QUESTION 37

What is the equation of the line that passes through the points (2, -1) and (6, 7)?

A) A) y = -2x + 3

B) B) y = 2x + 3

C) C) y = ½x - 2

D) D) y = 2x - 5

Correct Answer: A) A) y = -2x + 3

Explanation: The correct answer is **A) A) y = -2x + 3**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to A) y = -2x + 3.

QUESTION 38

Which expression is equivalent to $(3x^2y^3)^2 \cdot (2xy^2)$?

A) A) $18x^5y^8$

B) B) $18x^4y^6$

C) C) $12x^5y^8$

D) D) $6x^5y^8$

Correct Answer: A) A) $18x^5y^8$

Explanation: The correct answer is **A) A) $18x^5y^8$**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to A) $18x^5y^8$.

QUESTION 39

A gym charges a one-time enrollment fee of $75 plus $40 per month. A competing gym charges no enrollment fee but $55 per month. After how many months will the total cost be the same at both gyms?

A) A) 3 months

B) B) 4 months

C) C) 5 months

D) D) 6 months

Correct Answer: A) A) 3 months

Explanation: The correct answer is **A) A) 3 months**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 40

Solve the system of equations: 3x + 2y = 16 x - y = 2

A) A) x = 5, y = 3

B) B) x = 3, y = 1

C) C) x = 4, y = 2

D) D) x = 2, y = 5

Correct Answer: A) A) x = 5, y = 3

Explanation: The correct answer is **A) A) x = 5, y = 3**. Systems of linear equations can be solved by substitution (expressing one variable in terms of the other and substituting) or elimination (adding/subtracting equations to cancel a variable). Applying either method to this system yields the solution A) x = 5, y = 3.

QUESTION 41

A cylindrical water tower has a radius of 8 feet and a height of 30 feet. What is the approximate volume of the water tower? (Use $\pi \approx 3.14$)

A) A) 6,028.8 cubic feet

B) B) 6,031.2 cubic feet

C) C) 5,024.0 cubic feet

D) D) 7,536.0 cubic feet

Correct Answer: A) A) 6,028.8 cubic feet

Explanation: The correct answer is **A) A) 6,028.8 cubic feet**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces A) 6,028.8 cubic feet.

QUESTION 42

In triangle ABC, angle A = 55° and angle B = 70°. What is the measure of the exterior angle at vertex C?

A) A) 55°

B) B) 135°

C) C) 125°

D) D) 110°

Correct Answer: A) A) 55°

Explanation: The correct answer is **A) A) 55°**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to A) 55°.

QUESTION 43

A rectangular garden measuring 12 meters by 8 meters is surrounded by a uniform walkway that is 1.5 meters wide. What is the total area of the walkway alone?

A) A) 69 square meters

B) B) 66 square meters

C) C) 72 square meters

D) D) 75 square meters

Correct Answer: A) A) 69 square meters

Explanation: The correct answer is **A) A) 69 square meters**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields A) 69 square meters.

QUESTION 44

Two similar triangles have corresponding sides in the ratio 3:5. If the area of the smaller triangle is 27 square centimeters, what is the area of the larger triangle?

A) A) 75 square centimeters

B) B) 60 square centimeters

C) C) 45 square centimeters

D) D) 135 square centimeters

Correct Answer: A) A) 75 square centimeters

Explanation: The correct answer is **A) A) 75 square centimeters**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields A) 75 square centimeters.

QUESTION 45

A ladder 15 feet long leans against a wall. If the base of the ladder is 9 feet from the wall, how high up the wall does the ladder reach?

A) A) 10 feet

B) B) 12 feet

C) C) 11 feet

D) D) 13 feet

Correct Answer: A) A) 10 feet

Explanation: The correct answer is **A) A) 10 feet**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 46

A bag contains 5 red marbles, 8 blue marbles, and 7 green marbles. If two marbles are drawn without replacement, what is the probability that both are blue?

A) A) 16/100

B) B) 14/95

C) C) 28/190

D) D) 56/380

Correct Answer: A) A) 16/100

Explanation: The correct answer is **A) A) 16/100**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of A) 16/100.

QUESTION 47

The test scores for a class of 9 students are: 62, 71, 74, 78, 82, 85, 88, 91, 95. What is the interquartile range (IQR)?

A) A) 15

B) B) 17

C) C) 18

D) D) 33

Correct Answer: A) A) 15

Explanation: The correct answer is **A) A) 15**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives A) 15.

QUESTION 48

A survey of 400 voters found that 55% support a proposed policy with a margin of error of ±4%. Which statement is the most accurate interpretation?

A) A) It is estimated that between 51% and 59% of the population supports the policy

B) B) Between 51% and 59% of the surveyed voters support the policy

C) C) Exactly 55% of all voters support the policy

D) D) At least 59% of the population supports the policy

Correct Answer: A) A) It is estimated that between 51% and 59% of the population supports the policy

Explanation: The correct answer is **A) A) It is estimated that between 51% and 59% of the population supports the policy**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to A) It is estimated that between 51% and 59% of the population supports the policy.

QUESTION 49

A student's grades are weighted as follows: Tests 50%, Homework 20%, Projects 20%, Participation 10%. If a student scores 88 on tests, 95 on homework, 80 on projects, and 90 on participation, what is the weighted average?

A) A) 88.0

B) B) 87.0

C) C) 88.5

D) D) 89.0

Correct Answer: A) A) 88.0

Explanation: The correct answer is **A) A) 88.0**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of A) 88.0.

QUESTION 50

In a standard normal distribution, approximately what percentage of data falls within two standard deviations of the mean?

A) A) 68%

B) B) 90%

C) C) 99.7%

D) D) 95%

Correct Answer: A) A) 68%

Explanation: The correct answer is **A) A) 68%**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of A) 68%.

FULL CRC EXAM

TSIA2 Simulated Exam 7 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

Read the following passage: 'The discovery of deep-sea hydrothermal vents in 1977 revolutionized our understanding of life on Earth. These underwater geysers, found along mid-ocean ridges, spew superheated water rich in minerals and chemicals. Remarkably, entire ecosystems thrive in these extreme environments, sustained not by sunlight but by chemosynthesis — a process in which bacteria convert chemical energy from hydrogen sulfide into organic compounds. These vent communities include giant tube worms, eyeless shrimp, and heat-resistant microbes, challenging the long-held assumption that all life depends on photosynthesis.' What is the primary purpose of this passage?

A) A) To argue that hydrothermal vents should be protected from deep-sea mining

B) B) To describe the dangers of deep-sea exploration

C) C) To compare chemosynthesis and photosynthesis as energy sources

D) D) To explain how hydrothermal vent ecosystems changed scientific understanding of life

Correct Answer: A) A) To argue that hydrothermal vents should be protected from deep-sea mining

Explanation: The correct answer is **A) A) To argue that hydrothermal vents should be protected from deep-sea mining**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 2

Based on the passage about hydrothermal vents, what does the word 'sustained' most closely mean in context?

A) A) Endured over a long period

B) B) Supported and maintained

C) C) Damaged beyond repair

D) D) Temporarily preserved

Correct Answer: A) A) Endured over a long period

Explanation: The correct answer is **A) A) Endured over a long period**. When determining word meaning from context, look at the surrounding sentences for synonyms, antonyms, or examples that clarify the word's usage. The context in this passage indicates the word means 'a) endured over a long period', which fits the logical flow of the passage.

QUESTION 3

Based on the hydrothermal vent passage, which inference is best supported?

A) A) All ocean life ultimately depends on hydrothermal vents

B) B) Chemosynthesis is more efficient than photosynthesis

C) C) Scientists prior to 1977 likely believed sunlight was essential for all ecosystems

D) D) Hydrothermal vents exist on every ocean floor

Correct Answer: A) A) All ocean life ultimately depends on hydrothermal vents

Explanation: The correct answer is **A) A) All ocean life ultimately depends on hydrothermal vents**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) All ocean life ultimately depends on hydrothermal vents', making it the best-supported inference over the other options.

QUESTION 4

Read the following passage: 'Urban beekeeping has surged in popularity over the past decade, with rooftop hives appearing atop restaurants, hotels, and apartment buildings in cities worldwide. Proponents argue that city bees enjoy access to diverse flowering plants in parks and gardens, producing honey with complex flavors unavailable in monoculture farmland. However, critics warn that concentrating too many managed honeybee colonies in urban areas can overwhelm local ecosystems, outcompeting native pollinators such as bumblebees and solitary bees for limited floral resources.' Which statement best describes the author's approach in this passage?

A) A) The author strongly advocates for urban beekeeping expansion

B) B) The author focuses exclusively on the economic benefits of urban honey

C) C) The author dismisses urban beekeeping as a harmful trend

D) D) The author presents both benefits and concerns regarding urban beekeeping

Correct Answer: A) A) The author strongly advocates for urban beekeeping expansion

Explanation: The correct answer is **A) A) The author strongly advocates for urban beekeeping expansion**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 5

In the urban beekeeping passage, what organizational structure does the author primarily use?

A) A) Chronological sequence of events

B) B) Problem and proposed solution

C) C) Claim followed by counterclaim

D) D) Spatial description of urban landscapes

Correct Answer: A) A) Chronological sequence of events

Explanation: The correct answer is **A) A) Chronological sequence of events**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 6

Read the following passage: 'When Portuguese explorers reached the Spice Islands of Southeast Asia in the early 1500s, they encountered nutmeg — a spice so prized in Europe that a single cargo hold could make a merchant fabulously wealthy. Nutmeg was believed to cure plague, stimulate appetite, and ward off evil spirits. The fierce competition for control of the nutmeg trade eventually drew the Dutch, who in 1621 massacred the inhabitants of Banda Islands to secure a monopoly. This brutal chapter illustrates how the desire for a seemingly trivial commodity can drive nations to extraordinary violence.' What is the author's tone in the final sentence?

A) A) Celebratory and admiring

B) B) Detached and indifferent

C) C) Critical and reflective

D) D) Humorous and lighthearted

Correct Answer: A) A) Celebratory and admiring

Explanation: The correct answer is **A) A) Celebratory and admiring**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'a) celebratory and admiring' as the dominant tone.

QUESTION 7

Based on the nutmeg passage, which detail most directly supports the claim that nutmeg was extraordinarily valuable?

A) A) A single cargo hold of nutmeg could make a merchant fabulously wealthy

B) B) Portuguese explorers reached the Spice Islands in the 1500s

C) C) The Dutch arrived after the Portuguese

D) D) Nutmeg was believed to ward off evil spirits

Correct Answer: A) A) A single cargo hold of nutmeg could make a merchant fabulously wealthy

Explanation: The correct answer is **A) A) A single cargo hold of nutmeg could make a merchant fabulously wealthy**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'A) A single cargo hold of nutmeg could make a merchant fabulously wealthy' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 8

Read the following passage: 'The concept of universal basic income (UBI) — a government program providing every citizen with a regular, unconditional cash payment — has gained traction across the political spectrum. Pilot programs in Finland, Kenya, and Stockton, California, have shown that recipients generally do not stop working; instead, they invest in education, pay off debts, and start small businesses. Skeptics counter that scaling such programs nationally would require enormous tax increases and could fuel inflation. Nevertheless, as automation threatens to displace millions of workers, the conversation around UBI has shifted from whether it is desirable to whether it is inevitable.' Which statement best summarizes the author's conclusion?

A) A) UBI has been proven effective and should be adopted immediately

B) B) UBI is too expensive to ever be implemented on a national scale

C) C) The debate about UBI has evolved from questioning its merit to questioning its timing

D) D) Automation will eliminate the need for any form of government assistance

Correct Answer: A) A) UBI has been proven effective and should be adopted immediately

Explanation: The correct answer is **A) A) UBI has been proven effective and should be adopted immediately**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'A) UBI has been proven effective and should be adopted immediately' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 9

In the UBI passage, what rhetorical strategy does the author employ by mentioning pilot programs in Finland, Kenya, and Stockton?

A) A) Appeal to emotion by describing individual hardship stories

B) B) Appeal to authority by citing government officials

C) C) Use of specific evidence to counter a common objection

D) D) Use of repetition to emphasize a key theme

Correct Answer: A) A) Appeal to emotion by describing individual hardship stories

Explanation: The correct answer is **A) A) Appeal to emotion by describing individual hardship stories**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 10

Read the following passage: 'Coral reefs occupy less than one percent of the ocean floor yet support roughly twenty-five percent of all marine species. Often called the rainforests of the sea, these structures are built by tiny coral polyps that secrete calcium carbonate skeletons over centuries. Rising ocean temperatures cause coral bleaching, a stress response in which corals expel the symbiotic algae that provide them with color and up to ninety percent of their energy. Without intervention, scientists project that seventy percent of the world's coral reefs could disappear by 2050.' What is the relationship between coral polyps and the symbiotic algae described in the passage?

A) A) The algae compete with polyps for calcium carbonate

B) B) The algae and polyps have no significant interaction

C) C) The polyps consume the algae as their primary food source

D) D) The algae provide energy and color to the coral polyps

Correct Answer: A) A) The algae compete with polyps for calcium carbonate

Explanation: The correct answer is **A) A) The algae compete with polyps for calcium carbonate**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'A) The algae compete with polyps for calcium carbonate' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 11

Read the following passage: 'In 1928, Alexander Fleming returned from vacation to find mold growing on a petri dish of Staphylococcus bacteria. The mold, later identified as Penicillium notatum, had created a clear zone where bacteria could not survive. Fleming published his findings but lacked the resources to develop the mold into a usable drug. It took another decade before Howard Florey and Ernst Chain at Oxford University successfully purified penicillin and demonstrated its life-saving potential during World War II.' Based on the passage, why was there a gap between Fleming's discovery and penicillin's medical use?

A) A) Fleming did not believe the mold had any medical value

B) B) World War II prevented scientific research from taking place

C) C) Fleming lacked the resources to develop the mold into a drug

D) D) Other scientists refused to collaborate with Fleming

Correct Answer: A) A) Fleming did not believe the mold had any medical value

Explanation: The correct answer is **A) A) Fleming did not believe the mold had any medical value**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 12

Read the following poem excerpt: 'The crane stands still in shallow water, / a sentinel of patience carved from dawn. / It does not chase the silver flash below / but waits until the world delivers what it needs. / We could learn from standing still — / the art of letting time arrange its gifts.' What does the crane most likely symbolize in this poem?

A) A) The wisdom of patience and trust in timing

B) B) The futility of waiting for opportunities

C) C) The loneliness of isolation from society

D) D) The danger of remaining passive in life

Correct Answer: A) A) The wisdom of patience and trust in timing

Explanation: The correct answer is **A) A) The wisdom of patience and trust in timing**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives A) The wisdom of patience and trust in timing.

QUESTION 13

Read the following passage: 'Sleep deprivation among teenagers has reached epidemic proportions, with the American Academy of Pediatrics reporting that fewer than one in three adolescents gets the recommended eight to ten hours of sleep per night. Early school start times, excessive screen use, and heavy academic workloads conspire against healthy sleep habits. Research consistently links inadequate sleep to impaired memory consolidation, weakened immune function, and heightened anxiety. Several school districts that shifted to later start times have documented improvements in attendance, grades, and even reduced car accident rates among teen drivers.' Which of the following would most strengthen the author's argument for later school start times?

A) A) A survey showing parents prefer the earlier schedule for childcare convenience

B) B) Testimony from a student who enjoys waking up early

C) C) A longitudinal study showing sustained academic gains over five years after shifting start times

D) D) Data showing that teens in other countries sleep even fewer hours

Correct Answer: A) A) A survey showing parents prefer the earlier schedule for childcare convenience

Explanation: The correct answer is **A) A) A survey showing parents prefer the earlier schedule for childcare convenience**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'A) A survey showing parents prefer the earlier schedule for childcare convenience' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 14

In the sleep deprivation passage, the phrase 'conspire against' is used to suggest that the factors affecting teen sleep are:

A) A) Deliberately coordinated by school administrators

B) B) Unrelated to one another but coincidentally present

C) C) Each individually sufficient to cause sleep deprivation

D) D) Working together to create a harmful cumulative effect

Correct Answer: A) A) Deliberately coordinated by school administrators

Explanation: The correct answer is **A) A) Deliberately coordinated by school administrators**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) Deliberately coordinated by school administrators', making it the best-supported inference over the other options.

QUESTION 15

Read the following passage: 'The tiny island nation of Nauru, once among the wealthiest countries per capita due to its phosphate deposits, serves as a cautionary tale in resource management. For decades, strip mining consumed nearly eighty percent of the island's surface, leaving behind a barren moonscape of limestone pinnacles. When the phosphate ran out in the 1990s, Nauru faced economic collapse. The government resorted to desperate measures, including selling passports and hosting an offshore detention center for Australia. Today, Nauru struggles with diabetes rates exceeding forty percent and limited arable land.' What is the author's primary purpose in describing Nauru's history?

A) A) To promote tourism to the island nation

B) B) To illustrate the consequences of unsustainable resource extraction

C) C) To compare Nauru's economy with other Pacific island nations

D) D) To argue that phosphate mining should be banned worldwide

Correct Answer: A) A) To promote tourism to the island nation

Explanation: The correct answer is **A) A) To promote tourism to the island nation**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 16

Which sentence best combines the following two sentences? 'The museum renovation took three years to complete. The museum now features interactive exhibits that attract twice as many visitors.'

A) A) After a three-year renovation, the museum now features interactive exhibits that attract twice as many visitors.

B) B) The museum renovation took three years to complete, it now features interactive exhibits that attract twice as many visitors.

C) C) The museum renovation took three years to complete and the museum now features interactive exhibits and they attract twice as many visitors.

D) D) Taking three years, the museum was renovated, and it has interactive exhibits, and visitors come twice as much.

Correct Answer: A) A) After a three-year renovation, the museum now features interactive exhibits that attract twice as many visitors.

Explanation: The correct answer is **A) A) After a three-year renovation, the museum now features interactive exhibits that attract twice as many visitors.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 17

Select the sentence that is punctuated correctly.

A) A) The senator's proposal which included tax incentives for small businesses received bipartisan support.

B) B) The senator's proposal, which included tax incentives for small businesses received bipartisan support.

C) C) The senator's proposal which included tax incentives for small businesses, received bipartisan support.

D) D) The senator's proposal, which included tax incentives for small businesses, received bipartisan support.

Correct Answer: A) A) The senator's proposal which included tax incentives for small businesses received bipartisan support.

Explanation: The correct answer is **A) A) The senator's proposal which included tax incentives for small businesses received bipartisan support.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 18

Read the following sentence: 'Neither the coach nor the players _____ satisfied with the referee's decision.' Which verb correctly completes the sentence?

A) A) was

B) B) were

C) C) is

D) D) has been

Correct Answer: A) A) was

Explanation: The correct answer is **A) A) was**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

Which of the following sentences contains a dangling modifier?

A) A) Running through the park, the dog chased the squirrel energetically.

B) B) Exhausted from the hike, the sleeping bag felt like a luxury to Maria.

C) C) After studying all night, Priya aced her chemistry exam.

D) D) The chef, known for her creativity, unveiled a new seasonal menu.

Correct Answer: A) A) Running through the park, the dog chased the squirrel energetically.

Explanation: The correct answer is **A) A) Running through the park, the dog chased the squirrel energetically.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 20

Read the following passage: '(1) The community garden has transformed the vacant lot into a vibrant gathering space. (2) Volunteers planted tomatoes, peppers, and herbs in raised beds along the fence. (3) The parking garage across the street was built in 2019. (4) Neighbors who had never spoken before now exchange gardening tips and share their harvest.' Which sentence should be removed to improve the coherence of the passage?

A) A) Sentence 1

B) B) Sentence 2

C) C) Sentence 3

D) D) Sentence 4

Correct Answer: A) A) Sentence 1

Explanation: The correct answer is **A) A) Sentence 1**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 21

Which transition best completes the following sentence? 'The experiment produced unexpected results; _____, the researchers decided to redesign the methodology and conduct additional trials.'

A) A) for example

B) B) in contrast

C) C) consequently

D) D) similarly

Correct Answer: A) A) for example

Explanation: The correct answer is **A) A) for example**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option A best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 22

Read the following draft paragraph: 'Many colleges now offer mental health days as part of their attendance policies. Students can take designated days off without academic penalty when they feel overwhelmed. This policy recognizes that emotional well-being directly impacts academic performance. _____' Which sentence best concludes this paragraph?

A) A) Some students prefer online classes to in-person lectures.

B) B) Faculty members also benefit from professional development workshops.

C) C) The cost of tuition has increased significantly over the past decade.

D) D) By normalizing mental health care, colleges can foster healthier and more productive learning environments.

Correct Answer: A) A) Some students prefer online classes to in-person lectures.

Explanation: The correct answer is **A) A) Some students prefer online classes to in-person lectures.**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 23

Which of the following sentences uses a semicolon correctly?

A) A) The orchestra performed beautifully; the audience gave a standing ovation.

B) B) The orchestra performed beautifully; however the audience was sparse.

C) C) The orchestra performed beautifully; and the audience gave a standing ovation.

D) D) The orchestra; performed beautifully the audience gave a standing ovation.

Correct Answer: A) A) The orchestra performed beautifully; the audience gave a standing ovation.

Explanation: The correct answer is **A) A) The orchestra performed beautifully; the audience gave a standing ovation.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 24

Read the following sentence: 'The committee submitted _____ report to the board, recommending that each department review _____ procedures.' Which pair of words correctly fills the blanks?

A) A) it's / they're

B) B) their / its

C) C) its / their

D) D) it's / their

Correct Answer: A) A) it's / they're

Explanation: The correct answer is **A) A) it's / they're**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 25

A student is writing a persuasive essay arguing that public libraries should expand digital lending programs. Which sentence provides the strongest supporting evidence?

A) A) Libraries have been important community institutions for centuries.

B) B) A 2025 Pew Research study found that sixty-two percent of library patrons now prefer borrowing e-books and audiobooks over physical copies.

C) C) Some people believe that reading physical books is a more enjoyable experience.

D) D) Libraries also offer programs like story time for children.

Correct Answer: A) A) Libraries have been important community institutions for centuries.

Explanation: The correct answer is **A) A) Libraries have been important community institutions for centuries.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 26

Which revision best improves the clarity of this sentence? 'The reason the project failed is because the team did not communicate effectively and also they ran out of funding.'

A) A) The project failed due to ineffective team communication and insufficient funding.

B) B) The reason the project failed is because of communication and money.

C) C) The project, which failed, was because the team, who did not communicate, also ran out of funding.

D) D) Because of communication being ineffective and also funding running out is why the project failed.

Correct Answer: A) A) The project failed due to ineffective team communication and insufficient funding.

Explanation: The correct answer is **A) A) The project failed due to ineffective team communication and insufficient funding.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 27

Read the following sentences: 'The artist used bold colors and geometric shapes in her mural. She wanted to evoke the energy of the neighborhood's street markets.' Which revision best combines these sentences while maintaining the original meaning?

A) A) Using bold colors and geometric shapes in her mural, the artist wanted to evoke the energy of the neighborhood's street markets.

B) B) The mural had bold colors and the artist wanted energy from street markets.

C) C) Bold colors and geometric shapes were used in the mural because street markets have energy.

D) D) The artist used bold colors and geometric shapes in her mural to evoke the energy of the neighborhood's street markets.

Correct Answer: A) A) Using bold colors and geometric shapes in her mural, the artist wanted to evoke the energy of the neighborhood's street markets.

Explanation: The correct answer is **A) A) Using bold colors and geometric shapes in her mural, the artist wanted to evoke the energy of the neighborhood's street markets.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 28

Which sentence demonstrates correct parallel structure?

A) A) The internship requires researching market trends, to write analytical reports, and presenting findings to executives.

B) B) The internship requires researching market trends, writing analytical reports, and presenting findings to executives.

C) C) The internship requires to research market trends, writing analytical reports, and the presentation of findings to executives.

D) D) The internship requires research of market trends, to write analytical reports, and presenting findings to executives.

Correct Answer: A) A) The internship requires researching market trends, to write analytical reports, and presenting findings to executives.

Explanation: The correct answer is **A) A) The internship requires researching market trends, to write analytical reports, and presenting findings to executives.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option A maintains consistent grammatical form across all listed or compared elements.

QUESTION 29

Read the following paragraph: 'The debate over year-round schooling continues to divide educators and parents. Supporters claim that shorter, more frequent breaks reduce the summer learning loss that disproportionately affects low-income students. Opponents argue that year-round schedules disrupt family vacations, summer employment opportunities for teens, and traditional camp experiences. _____' Which sentence best serves as a thesis statement if this paragraph were the introduction to an argumentative essay supporting year-round schooling?

A) A) Year-round schooling is an interesting concept worth exploring.

B) B) Ultimately, the academic benefits of year-round schooling outweigh the lifestyle adjustments it requires.

C) C) Many countries around the world use different school calendars.

D) D) Parents should be allowed to choose whichever schedule they prefer.

Correct Answer: A) A) Year-round schooling is an interesting concept worth exploring.

Explanation: The correct answer is **A) A) Year-round schooling is an interesting concept worth exploring.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'A) Year-round schooling is an interesting concept worth exploring.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 30

Read the following passage: '(1) The growth of telemedicine has accelerated since 2020, fundamentally altering how patients access healthcare. (2) Virtual consultations allow patients in rural areas to connect with specialists hundreds of miles away. (3) My cousin had a video appointment with her doctor last Tuesday. (4) Studies indicate that telemedicine reduces emergency room overcrowding by directing non-urgent cases to virtual platforms. (5) Despite connectivity challenges in some regions, telemedicine represents a significant step toward healthcare equity.' Which sentence should be revised or removed because it shifts the tone and formality of the passage?

A) A) Sentence 2

B) B) Sentence 3

C) C) Sentence 4

D) D) Sentence 5

Correct Answer: A) A) Sentence 2

Explanation: The correct answer is **A) A) Sentence 2**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'a) sentence 2' as the dominant tone.

QUESTION 31

A jar contains 8 red marbles, 12 blue marbles, and 5 green marbles. If one marble is drawn at random, what is the probability that it is NOT blue?

A) A) 12/25

B) B) 17/25

C) C) 8/25

D) D) 13/25

Correct Answer: A) A) 12/25

Explanation: The correct answer is **A) A) 12/25**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of A) 12/25.

QUESTION 32

A data set contains the values: 14, 18, 22, 22, 25, 30, 35. What is the interquartile range (IQR)?

A) A) 12

B) B) 13

C) C) 16

D) D) 21

Correct Answer: A) A) 12

Explanation: The correct answer is **A) A) 12**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives A) 12.

QUESTION 33

A survey of 200 employees found that 70 prefer remote work, 90 prefer hybrid work, and 40 prefer in-office work. If a pie chart is created, what central angle represents the hybrid work preference?

A) A) 126°

B) B) 162°

C) C) 144°

D) D) 180°

Correct Answer: A) A) 126°

Explanation: The correct answer is **A) A) 126°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives A) 126°.

QUESTION 34

Two fair six-sided dice are rolled. What is the probability that the sum equals 9?

A) A) 1/9

B) B) 1/12

C) C) 1/6

D) D) 5/36

Correct Answer: A) A) 1/9

Explanation: The correct answer is **A) A) 1/9**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of A) 1/9.

QUESTION 35

A class of 28 students has a mean test score of 78. If a new student joins and scores 92, what is the new class mean (rounded to the nearest tenth)?

A) A) 78.5

B) B) 79.0

C) C) 78.4

D) D) 78.8

Correct Answer: A) A) 78.5

Explanation: The correct answer is **A) A) 78.5**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of A) 78.5.

QUESTION 36

A store sells notebooks for $3.50 each. If a customer has $27.00, what is the maximum number of notebooks they can buy?

A) A) 8

B) B) 9

C) C) 6

D) D) 7

Correct Answer: A) A) 8

Explanation: The correct answer is **A) A) 8**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 37

A recipe that serves 6 people requires 2.5 cups of flour. How many cups of flour are needed to serve 15 people?

A) A) 5.0

B) B) 6.25

C) C) 7.5

D) D) 5.75

Correct Answer: A) A) 5.0

Explanation: The correct answer is **A) A) 5.0**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 38

A car's value depreciates by 18% each year. If the car is worth $24,000 today, what will its approximate value be in 2 years?

A) A) $16,156.80

B) B) $15,360.00

C) C) $19,680.00

D) D) $17,452.80

Correct Answer: A) A) $16,156.80

Explanation: The correct answer is **A) A) $16,156.80**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 39

Which of the following is equivalent to the expression 3/8 + 5/12?

A) A) 8/20

B) B) 19/24

C) C) 15/96

D) D) 2/5

Correct Answer: A) A) 8/20

Explanation: The correct answer is **A) A) 8/20**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to A) 8/20.

QUESTION 40

A water tank holds 1,500 gallons when full. If it is currently 35% full and water is added at a rate of 12 gallons per minute, how many minutes will it take to fill the tank completely?

A) A) 81.25

B) B) 75.0

C) C) 87.5

D) D) 93.75

Correct Answer: A) A) 81.25

Explanation: The correct answer is **A) A) 81.25**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to A) 81.25.

QUESTION 41

Solve for x: 5(x - 3) + 2 = 3(x + 7)

A) A) x = 17

B) B) x = 12

C) C) x = 15

D) D) x = 19

Correct Answer: A) A) x = 17

Explanation: The correct answer is **A) A) x = 17**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to A) x = 17.

QUESTION 42

Which equation represents the line that passes through the points (2, -1) and (6, 7)?

A) A) y = 2x - 5

B) B) y = 2x + 3

C) C) y = -2x + 3

D) D) y = (1/2)x - 2

Correct Answer: A) A) y = 2x - 5

Explanation: The correct answer is **A) A) y = 2x - 5**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to A) y = 2x - 5.

QUESTION 43

Factor completely: $2x^2 + 11x + 15$

A) A) (2x + 3)(x + 5)

B) B) (x + 5)(2x + 3)

C) C) (2x + 15)(x + 1)

D) D) (2x + 5)(x + 3)

Correct Answer: A) A) (2x + 3)(x + 5)

Explanation: The correct answer is **A) A) (2x + 3)(x + 5)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields A) (2x + 3)(x + 5).

QUESTION 44

Solve the system of equations: 3x + 2y = 16 and x - y = 2

A) A) x = 4, y = 2

B) B) x = 3, y = 1

C) C) x = 5, y = 3

D) D) x = 2, y = 5

Correct Answer: A) A) x = 4, y = 2

Explanation: The correct answer is **A) A) x = 4, y = 2**. Systems of linear equations can be solved by substitution (expressing one variable in terms of the other and substituting) or elimination (adding/subtracting equations to cancel a variable). Applying either method to this system yields the solution A) x = 4, y = 2.

QUESTION 45

If $f(x) = 4x^2 - 3x + 7$, what is f(-2)?

A) A) 29

B) B) 25

C) C) 33

D) D) 17

Correct Answer: A) A) 29

Explanation: The correct answer is **A) A) 29**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives A) 29.

QUESTION 46

A rectangular garden has a length that is 4 feet more than twice its width. If the perimeter is 62 feet, what is the area of the garden in square feet?

A) A) 150

B) B) 180

C) C) 198

D) D) 210

Correct Answer: A) A) 150

Explanation: The correct answer is **A) A) 150**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields A) 150.

QUESTION 47

A right triangle has legs measuring 9 cm and 12 cm. What is the length of the hypotenuse?

A) A) 13 cm

B) B) 15 cm

C) C) 16 cm

D) D) 21 cm

Correct Answer: A) A) 13 cm

Explanation: The correct answer is **A) A) 13 cm**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives A) 13 cm.

QUESTION 48

A cylinder has a radius of 5 inches and a height of 10 inches. What is its volume? (Use π ≈ 3.14)

A) A) 785 cubic inches

B) B) 628 cubic inches

C) C) 1,570 cubic inches

D) D) 314 cubic inches

Correct Answer: A) A) 785 cubic inches

Explanation: The correct answer is **A) A) 785 cubic inches**. Volume formulas: rectangular prism = l×w×h; cylinder = πr²h; cone = ⅓πr²h; sphere = (4/3)πr³. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces A) 785 cubic inches.

QUESTION 49

Two similar triangles have a scale factor of 3:5. If the area of the smaller triangle is 36 square units, what is the area of the larger triangle?

A) A) 60 square units

B) B) 100 square units

C) C) 81 square units

D) D) 120 square units

Correct Answer: A) A) 60 square units

Explanation: The correct answer is **A) A) 60 square units**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields A) 60 square units.

QUESTION 50

A point is located at (-3, 4) on the coordinate plane. If it is reflected over the x-axis and then translated 5 units to the right, what are its new coordinates?

A) A) (2, -4)

B) B) (2, 4)

C) C) (-8, -4)

D) D) (8, 4)

Correct Answer: A) A) (2, -4)

Explanation: The correct answer is **A) A) (2, -4)**. The midpoint formula is M = $((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is d = $sqrt((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces A) (2, -4).

QUESTION 51

WriteSmart Essay Prompt: Some educators argue that high schools should require students to complete a community service project as a graduation requirement, while others believe community service should remain voluntary. Should high schools mandate community service for graduation? Write a well-organized essay in which you take a clear position on this issue, support your argument with specific reasons and examples, and address a potential counterargument.

A) Suggested thesis: High schools should (or should not) require community service for graduation because it fosters civic responsibility and real-world skills (or because forced volunteerism undermines the spirit of genuine service).

B) Key supporting points: (1) Mandatory service exposes students to diverse communities and career paths they might not otherwise encounter; (2) Structured service-learning programs connect classroom knowledge to real-world applications, deepening understanding; (3) Counterargument — opponents claim compulsory service feels punitive, but well-designed programs offer student choice in projects and scheduling.

C) Rubric focus areas: Clear and defensible thesis; logical organization with introduction, body, and conclusion; specific evidence and examples; acknowledgment of counterargument; appropriate academic tone; grammar and conventions.

D)

Correct Answer: A) Suggested thesis: High schools should (or should not) require community service for graduation because it fosters civic responsibility and real-world skills (or because forced volunteerism undermines the spirit of genuine service).

Explanation: The correct answer is **A) Suggested thesis: High schools should (or should not) require community service for graduation because it fosters civic responsibility and real-world skills (or because forced volunteerism undermines the spirit of genuine service).**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

FULL CRC EXAM

TSIA2 Simulated Exam 8 — 2026

50 Questions — Answer Key with Explanations

QUESTION 1

Read the following passage:

> *"The discovery of deep-sea hydrothermal vents in 1977 transformed marine biology. Scientists aboard the submersible Alvin found thriving ecosystems at crushing depths where sunlight never penetrates. Instead of photosynthesis, these communities rely on chemosynthesis—bacteria convert hydrogen sulfide from volcanic vents into energy, forming the base of food chains that include giant tube worms, eyeless shrimp, and heat-tolerant crabs. This finding challenged the long-held assumption that all life ultimately depends on solar energy."*

What is the primary purpose of this passage?

A) A) To describe the technology used in deep-sea exploration

B) B) To explain how a scientific discovery changed fundamental biological assumptions

C) C) To argue that chemosynthesis is superior to photosynthesis

D) D) To catalog species found near hydrothermal vents

Correct Answer: A) A) To describe the technology used in deep-sea exploration

Explanation: The correct answer is **A) A) To describe the technology used in deep-sea exploration**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 2

Based on the passage above, the word 'chemosynthesis' most likely refers to:

A) A) A process by which organisms produce light in dark environments

B) B) A chemical process that converts volcanic compounds into usable biological energy

C) C) The decomposition of organic matter on the ocean floor

D) D) A method of filtering nutrients from seawater

Correct Answer: A) A) A process by which organisms produce light in dark environments

Explanation: The correct answer is **A) A) A process by which organisms produce light in dark environments**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) A process by which organisms produce light in dark environments', making it the best-supported inference over the other options.

QUESTION 3

Read the following passage:

> *"Urban beekeeping has surged in popularity since 2010, with rooftop hives appearing atop hotels, restaurants, and corporate offices in cities worldwide. Proponents argue that urban bees boost pollination of community gardens and green spaces. However, ecologists warn that high concentrations of managed honeybees in cities may outcompete native wild pollinators—solitary bees, hoverflies, and butterflies—for limited floral resources. Some cities have begun restricting new hive permits to protect pollinator diversity."*

The author's tone toward urban beekeeping is best described as:

A) A) Entirely supportive and enthusiastic

B) B) Dismissive and hostile

C) C) Balanced, presenting both benefits and ecological concerns

D) D) Indifferent and detached

Correct Answer: A) A) Entirely supportive and enthusiastic

Explanation: The correct answer is **A) A) Entirely supportive and enthusiastic**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'a) entirely supportive and enthusiastic' as the dominant tone.

QUESTION 4

According to the passage above, why have some cities restricted new beekeeping permits?

A) A) Because urban honey production has become unprofitable

B) B) Because honeybees have been spreading diseases to humans

C) C) To prevent managed honeybees from displacing native wild pollinators

D) D) Because rooftop hives cause structural damage to buildings

Correct Answer: A) A) Because urban honey production has become unprofitable

Explanation: The correct answer is **A) A) Because urban honey production has become unprofitable**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 5

Read the following passage:

> *"In 1928, Scottish bacteriologist Alexander Fleming returned from vacation to find mold contaminating one of his petri dishes. Rather than discarding the ruined experiment, Fleming noticed that bacteria surrounding the mold had died. This accidental observation led to the identification of penicillin, the first true antibiotic. Yet nearly a decade passed before Howard Florey and Ernst Boris Chain developed methods to mass-produce the drug, finally making it available during World War II, where it saved countless lives from infected wounds."*

Which statement best describes the relationship between Fleming's discovery and its practical application?

A) A) Fleming immediately began mass-producing penicillin after his discovery

B) B) The discovery was accidental, but translating it into a usable medicine required years of additional research by other scientists

C) C) Florey and Chain discovered penicillin independently of Fleming

D) D) Penicillin was widely available before World War II began

Correct Answer: A) A) Fleming immediately began mass-producing penicillin after his discovery

Explanation: The correct answer is **A) A) Fleming immediately began mass-producing penicillin after his discovery**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 6

In the passage above, 'contaminating' most nearly means:

A) A) Improving the quality of

B) B) Introducing unwanted substances into

C) C) Carefully organizing

D) D) Heating to high temperatures

Correct Answer: A) A) Improving the quality of

Explanation: The correct answer is **A) A) Improving the quality of**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 7

Read the following passage:

> *"Sleep researchers have identified a phenomenon called 'social jet lag,' which occurs when a person's biological clock conflicts with their social obligations. A teenager whose circadian rhythm naturally shifts toward later sleep and wake times may be forced to rise at 6 a.m. for school, creating a chronic sleep deficit equivalent to crossing several time zones each week. Studies link social jet lag to lower academic performance, increased anxiety, and higher rates of obesity. Several school districts have responded by pushing start times to 8:30 a.m. or later."*

The passage implies that social jet lag is primarily caused by:

A) A) Excessive use of electronic devices before bedtime

B) B) A mismatch between natural biological rhythms and externally imposed schedules

C) C) Traveling across multiple time zones for school activities

D) D) Students choosing to stay up late for entertainment

Correct Answer: A) A) Excessive use of electronic devices before bedtime

Explanation: The correct answer is **A) A) Excessive use of electronic devices before bedtime**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 8

Based on the passage above, which evidence best supports the claim that social jet lag has health consequences?

A) A) Several school districts have pushed start times later

B) B) Teenagers' circadian rhythms naturally shift toward later times

C) C) Studies link social jet lag to lower academic performance, increased anxiety, and higher obesity rates

D) D) Rising at 6 a.m. is equivalent to crossing time zones

Correct Answer: A) A) Several school districts have pushed start times later

Explanation: The correct answer is **A) A) Several school districts have pushed start times later**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'A) Several school districts have pushed start times later' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 9

Read the following passage:

> *"The Svalbard Global Seed Vault, buried deep inside an Arctic mountain in Norway, stores duplicate samples of seeds from gene banks around the world. Designed to withstand natural disasters, power failures, and even nuclear conflict, the vault serves as a backup for global agricultural diversity. When civil war destroyed Syria's seed bank in Aleppo, researchers were able to retrieve copies of their irreplaceable wheat and barley varieties from Svalbard, demonstrating the vault's critical real-world value."*

What organizational pattern does the author primarily use?

A) A) Chronological order of historical events

B) B) Compare and contrast of different seed vaults

C) C) General description followed by a specific illustrative example

D) D) Step-by-step process of how seeds are stored

Correct Answer: A) A) Chronological order of historical events

Explanation: The correct answer is **A) A) Chronological order of historical events**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 10

The Syria example in the passage above primarily serves to:

A) A) Criticize the international community for not preventing the war

B) B) Demonstrate that the seed vault has already proven its practical importance

C) C) Compare Syrian agriculture to Norwegian agriculture

D) D) Explain the technical process of seed preservation

Correct Answer: A) A) Criticize the international community for not preventing the war

Explanation: The correct answer is **A) A) Criticize the international community for not preventing the war**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 11

Read the following passage:

> *"Microplastics—fragments smaller than five millimeters—have been detected in human blood, lung tissue, and even placental fluid. While the health effects remain under investigation, preliminary studies in laboratory animals suggest these particles may trigger inflammatory responses, disrupt hormone signaling, and accumulate in organs over time. Critics of current regulations argue that safety standards for plastics were established decades ago, before microplastic contamination was understood, and urgently need updating."*

Which of the following best describes the author's argument?

A) A) Microplastics are completely harmless and concerns are exaggerated

B) B) Current plastic safety standards may be inadequate because they predate knowledge of microplastic risks

C) C) All plastics should be immediately banned worldwide

D) D) Laboratory animal studies are unreliable for understanding human health

Correct Answer: A) A) Microplastics are completely harmless and concerns are exaggerated

Explanation: The correct answer is **A) A) Microplastics are completely harmless and concerns are exaggerated**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) Microplastics are completely harmless and concerns are exaggerated', making it the best-supported inference over the other options.

QUESTION 12

Read the following passage:

> *"Traditional navigation in Polynesia relied not on instruments but on intimate knowledge of the natural world. Wayfinders memorized star paths, interpreted ocean swell patterns reflected off distant islands, observed the flight routes of migratory birds, and read subtle changes in cloud formations. This knowledge, passed orally through generations, enabled Pacific Islanders to colonize thousands of islands across an ocean spanning one-third of Earth's surface—centuries before European sailors ventured beyond sight of land."*

The author includes the comparison to European sailors primarily to:

A) A) Suggest that European navigation was fundamentally flawed

B) B) Emphasize the remarkable sophistication and early achievement of Polynesian navigation

C) C) Argue that Polynesian methods should replace modern GPS technology

D) D) Show that all ancient civilizations had identical navigation techniques

Correct Answer: A) A) Suggest that European navigation was fundamentally flawed

Explanation: The correct answer is **A) A) Suggest that European navigation was fundamentally flawed**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 13

Read the following passage:

> *"Citizen science—research conducted with help from non-professional volunteers—has expanded dramatically with smartphone technology. Apps like iNaturalist allow users to photograph wildlife, which AI algorithms then identify, creating massive biodiversity databases. Professional scientists initially viewed citizen data with skepticism, but studies have shown that aggregated observations from thousands of contributors can match or exceed the accuracy of small professional surveys. The approach is particularly valuable for tracking invasive species, where rapid detection across wide areas is essential."*

What can be inferred about the relationship between citizen science and professional research?

A) A) Citizen science has completely replaced professional research

B) B) Professional scientists have always enthusiastically supported citizen science

C) C) Citizen science and professional research have become increasingly complementary rather than competing

D) D) Citizen science is only useful for studying invasive species

Correct Answer: A) A) Citizen science has completely replaced professional research

Explanation: The correct answer is **A) A) Citizen science has completely replaced professional research**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) Citizen science has completely replaced professional research', making it the best-supported inference over the other options.

QUESTION 14

Read the following passage:

> *"The concept of 'food miles'—the distance food travels from farm to plate—gained popularity as a measure of environmental impact. However, transportation accounts for only about 11 percent of food's total greenhouse gas emissions. Production methods matter far more: a locally grown tomato raised in a heated greenhouse during winter may generate more emissions than one shipped from a sunny climate thousands of miles away. Researchers now advocate for lifecycle analysis rather than simple distance calculations when evaluating food sustainability."*

The passage primarily challenges the assumption that:

A) A) Greenhouse gases contribute to climate change

B) B) Shorter transportation distances always mean lower environmental impact for food

C) C) Tomatoes are the most important crop to study

D) D) Lifecycle analysis is too complicated to be practical

Correct Answer: A) A) Greenhouse gases contribute to climate change

Explanation: The correct answer is **A) A) Greenhouse gases contribute to climate change**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 15

In the passage above, 'lifecycle analysis' most likely refers to:

A) A) Studying the biological lifespan of food crops

B) B) Tracking food from purchase to consumption in a household

C) C) Evaluating the total environmental impact of food across all stages from production through delivery

D) D) Analyzing the nutritional content of food at different stages of ripeness

Correct Answer: A) A) Studying the biological lifespan of food crops

Explanation: The correct answer is **A) A) Studying the biological lifespan of food crops**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) Studying the biological lifespan of food crops', making it the best-supported inference over the other options.

QUESTION 16

Read the following passage:

> *"Forensic genealogy—using DNA databases and family tree research to identify unknown individuals—has revolutionized cold case investigations. In 2018, investigators uploaded crime scene DNA to a public genealogy database and identified the Golden State Killer after decades of failed conventional methods. Since then, the technique has solved hundreds of cases. Yet civil liberties organizations argue that searching genealogy databases effectively subjects millions of non-consenting individuals to genetic surveillance, raising profound questions about where the boundary between public safety and genetic privacy should lie."*

The passage presents forensic genealogy as:

A) A) An entirely positive advancement with no drawbacks

B) B) A powerful investigative tool that simultaneously raises significant privacy concerns

C) C) A technique that has been rejected by law enforcement

D) D) A method that is less effective than traditional investigation

Correct Answer: A) A) An entirely positive advancement with no drawbacks

Explanation: The correct answer is **A) A) An entirely positive advancement with no drawbacks**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 17

Read the following passage:

> *"The Great Pacific Garbage Patch is not, as many imagine, a solid floating island of trash. Instead, it consists of a diffuse soup of microplastic particles suspended throughout the water column, often invisible from the surface. This misconception matters because it shapes public expectations about cleanup. Technologies designed to skim visible debris from the surface address only a fraction of the problem, while the vast majority of contamination exists as nearly microscopic fragments that are extraordinarily difficult to filter without harming marine plankton."*

The author's primary purpose in correcting the misconception is to:

A) A) Discourage all cleanup efforts as futile

B) B) Explain why current cleanup approaches may be insufficient and the problem is more complex than commonly understood

C) C) Promote a specific cleanup technology

D) D) Blame the public for ocean pollution

Correct Answer: A) A) Discourage all cleanup efforts as futile

Explanation: The correct answer is **A) A) Discourage all cleanup efforts as futile**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 18

Select the sentence that is punctuated correctly.

A) A) The museum's newest exhibit, which features artifacts from ancient Mesopotamia will open next month.

B) B) The museum's newest exhibit which features artifacts from ancient Mesopotamia, will open next month.

C) C) The museum's newest exhibit, which features artifacts from ancient Mesopotamia, will open next month.

D) D) The museum's newest exhibit which features artifacts from ancient Mesopotamia will open next month.

Correct Answer: A) A) The museum's newest exhibit, which features artifacts from ancient Mesopotamia will open next month.

Explanation: The correct answer is **A) A) The museum's newest exhibit, which features artifacts from ancient Mesopotamia will open next month.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

Choose the option that best combines these two sentences: 'The architect designed the library with large skylights. She wanted to maximize natural lighting throughout the reading areas.'

A) A) The architect designed the library with large skylights, she wanted to maximize natural lighting throughout the reading areas.

B) B) The architect designed the library with large skylights to maximize natural lighting throughout the reading areas.

C) C) The architect designed the library with large skylights and she wanted to maximize natural lighting throughout the reading areas.

D) D) The architect designed the library with large skylights, but she wanted to maximize natural lighting throughout the reading areas.

Correct Answer: A) A) The architect designed the library with large skylights, she wanted to maximize natural lighting throughout the reading areas.

Explanation: The correct answer is **A) A) The architect designed the library with large skylights, she wanted to maximize natural lighting throughout the reading areas.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 20

Identify the sentence that contains a subject-verb agreement error.

A) A) The flock of starlings swoops through the evening sky in mesmerizing formations.

B) B) Neither the principal nor the teachers was informed about the schedule change.

C) C) Each of the candidates has submitted a detailed policy proposal.

D) D) The committee meets every Tuesday to review pending applications.

Correct Answer: A) A) The flock of starlings swoops through the evening sky in mesmerizing formations.

Explanation: The correct answer is **A) A) The flock of starlings swoops through the evening sky in mesmerizing formations.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option A is grammatically correct.

QUESTION 21

Which revision eliminates the dangling modifier? Original: 'Having studied all night for the chemistry exam, the questions seemed straightforward.'

A) A) Having studied all night for the chemistry exam, the questions were seeming straightforward.

B) B) Having studied all night for the chemistry exam, Maria found the questions straightforward.

C) C) The questions seemed straightforward, having studied all night for the chemistry exam.

D) D) Having studied all night, the chemistry exam questions seemed straightforward to everyone.

Correct Answer: A) A) Having studied all night for the chemistry exam, the questions were seeming straightforward.

Explanation: The correct answer is **A) A) Having studied all night for the chemistry exam, the questions were seeming straightforward.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 22

Choose the correct word to complete the sentence: 'The new policy will _____ thousands of employees who currently lack paid parental leave.'

A) A) affect

B) B) effect

C) C) affective

D) D) effective

Correct Answer: A) A) affect

Explanation: The correct answer is **A) A) affect**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 23

Which sentence demonstrates correct use of a semicolon?

A) A) The trail was steep and rocky; but the hikers pressed on toward the summit.

B) B) The trail was steep and rocky; the hikers pressed on toward the summit.

C) C) The trail was steep and rocky; because the hikers wanted to reach the summit.

D) D) The trail; was steep and rocky, the hikers pressed on toward the summit.

Correct Answer: A) A) The trail was steep and rocky; but the hikers pressed on toward the summit.

Explanation: The correct answer is **A) A) The trail was steep and rocky; but the hikers pressed on toward the summit.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 24

Read the following paragraph and choose the best transition for the blank: 'Renewable energy installations have grown by 40 percent over the past five years. _____, fossil fuel companies have begun investing heavily in solar and wind technology, signaling a shift in the energy sector.'

A) A) Nevertheless,

B) B) Consequently,

C) C) In contrast,

D) D) For example,

Correct Answer: A) A) Nevertheless,

Explanation: The correct answer is **A) A) Nevertheless,**. Effective transitions connect ideas by signaling relationships such as contrast, addition, causation, or sequence. 'A) Nevertheless,' provides the clearest logical link between the ideas presented, maintaining coherence without redundancy.

QUESTION 25

Which sentence contains a pronoun reference error?

A) A) After the manager spoke with the client, she sent a follow-up email confirming the details.

B) B) The students completed their research projects before the deadline.

C) C) When a voter arrives at the polling station, you must present valid identification.

D) D) The orchestra tuned their instruments before the conductor took the podium.

Correct Answer: A) A) After the manager spoke with the client, she sent a follow-up email confirming the details.

Explanation: The correct answer is **A) A) After the manager spoke with the client, she sent a follow-up email confirming the details.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option A uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 26

Choose the sentence that uses parallel structure correctly.

A) A) The internship requires writing reports, analyzing data, and you must attend weekly meetings.

B) B) The internship requires writing reports, analyzing data, and attending weekly meetings.

C) C) The internship requires writing reports, to analyze data, and the attendance of weekly meetings.

D) D) The internship requires to write reports, analyzing data, and attendance at weekly meetings.

Correct Answer: A) A) The internship requires writing reports, analyzing data, and you must attend weekly meetings.

Explanation: The correct answer is **A) A) The internship requires writing reports, analyzing data, and you must attend weekly meetings.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option A maintains consistent grammatical form across all listed or compared elements.

QUESTION 27

Which revision best eliminates wordiness while preserving meaning? Original: 'Due to the fact that the bridge is currently undergoing necessary structural repairs at this point in time, commuters should utilize alternative routes.'

A) A) Because the bridge is being repaired, commuters should use alternative routes.

B) B) Due to the fact that the bridge is being repaired, commuters should use alternative routes at this time.

C) C) The bridge is currently undergoing structural repairs, and due to this fact, commuters need to utilize alternative routes.

D) D) At this point in time, because the bridge needs repairs that are necessary, commuters should take other routes.

Correct Answer: A) A) Because the bridge is being repaired, commuters should use alternative routes.

Explanation: The correct answer is **A) A) Because the bridge is being repaired, commuters should use alternative routes.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 28

Select the sentence with correct apostrophe usage.

A) A) The three professor's offices are located on the second floor.

B) B) The three professors' offices are located on the second floor.

C) C) The three professors's offices are located on the second floor.

D) D) The three professors offices' are located on the second floor.

Correct Answer: A) A) The three professor's offices are located on the second floor.

Explanation: The correct answer is **A) A) The three professor's offices are located on the second floor.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 29

Read the draft paragraph: '(1) The city council voted to expand the public transit system. (2) Many residents had complained about limited bus routes. (3) My neighbor drives a red pickup truck. (4) The expansion will add twelve new routes connecting underserved neighborhoods to employment centers.' Which sentence should be removed to improve paragraph coherence?

A) A) Sentence 1

B) B) Sentence 2

C) C) Sentence 3

D) D) Sentence 4

Correct Answer: A) A) Sentence 1

Explanation: The correct answer is **A) A) Sentence 1**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 30

Which sentence correctly uses a colon?

A) A) The recipe calls for: flour, sugar, eggs, and butter.

B) B) The detective identified three suspects: the butler, the gardener, and the housekeeper.

C) C) She traveled to: Paris, Rome, and Tokyo last summer.

D) D) His hobbies include: painting, cycling, and reading.

Correct Answer: A) A) The recipe calls for: flour, sugar, eggs, and butter.

Explanation: The correct answer is **A) A) The recipe calls for: flour, sugar, eggs, and butter.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 31

A car rental company charges a flat fee of $45 plus $0.28 per mile driven. If a customer's total bill was $108.00, how many miles did the customer drive?

A) A) 215 miles

B) B) 225 miles

C) C) 235 miles

D) D) 245 miles

Correct Answer: A) A) 215 miles

Explanation: The correct answer is **A) A) 215 miles**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 32

A store marks up wholesale prices by 60% to set the retail price. During a clearance sale, all items are discounted 25% off the retail price. What is the overall percent change from the wholesale price to the clearance sale price?

A) A) 15% increase

B) B) 20% increase

C) C) 35% increase

D) D) 40% increase

Correct Answer: A) A) 15% increase

Explanation: The correct answer is **A) A) 15% increase**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields A) 15% increase.

QUESTION 33

A recipe that serves 8 people calls for 2.5 cups of rice. How many cups of rice are needed to serve 30 people?

A) A) 8.25 cups

B) B) 9.00 cups

C) C) 9.375 cups

D) D) 10.50 cups

Correct Answer: A) A) 8.25 cups

Explanation: The correct answer is **A) A) 8.25 cups**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 34

An investment of $6,000 earns simple interest at an annual rate of 4.5%. How much total money will be in the account after 3 years?

A) A) $6,270

B) B) $6,540

C) C) $6,810

D) D) $7,080

Correct Answer: A) A) $6,270

Explanation: The correct answer is **A) A) $6,270**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to A) $6,270.

QUESTION 35

A water tank loses 3.5% of its volume each hour due to a leak. If the tank initially holds 800 gallons, approximately how many gallons remain after 4 hours?

A) A) 688 gallons

B) B) 694 gallons

C) C) 700 gallons

D) D) 712 gallons

Correct Answer: A) A) 688 gallons

Explanation: The correct answer is **A) A) 688 gallons**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces A) 688 gallons.

QUESTION 36

Solve for x: 5(2x - 3) - 4(x + 2) = 3x + 1

A) A) x = 8

B) B) x = 10

C) C) x = 12

D) D) x = 24

Correct Answer: A) A) x = 8

Explanation: The correct answer is **A) A) x = 8**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to A) x = 8.

QUESTION 37

Which inequality represents all values of x that satisfy: -3x + 7 > 2x - 18?

A) A) x > 5

B) B) x < 5

C) C) x > -5

D) D) x < -5

Correct Answer: A) A) x > 5

Explanation: The correct answer is **A) A) x > 5**. Solving inequalities follows the same steps as equations, with one critical difference: multiplying or dividing by a negative number reverses the inequality sign. Isolating the variable in this inequality yields the solution set A) x > 5.

QUESTION 38

What is the slope of the line passing through the points (-4, 9) and (6, -1)?

A) A) -1

B) B) -4/5

C) C) 4/5

D) D) 1

Correct Answer: A) A) -1

Explanation: The correct answer is **A) A) -1**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option A.

QUESTION 39

Factor completely: $3x^2 + 14x - 5$

A) A) (3x - 1)(x + 5)

B) B) (3x + 5)(x - 1)

C) C) (3x + 1)(x - 5)

D) D) (3x - 5)(x + 1)

Correct Answer: A) A) (3x - 1)(x + 5)

Explanation: The correct answer is **A) A) (3x - 1)(x + 5)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b^2-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields A) (3x - 1)(x + 5).

QUESTION 40

A system of equations is given: 2x + 3y = 19 and 4x - y = 3. What is the value of y?

A) A) 2

B) B) 3

C) C) 4

D) D) 5

Correct Answer: A) A) 2

Explanation: The correct answer is **A) A) 2**. Systems of linear equations can be solved by substitution (expressing one variable in terms of the other and substituting) or elimination (adding/subtracting equations to cancel a variable). Applying either method to this system yields the solution A) 2.

QUESTION 41

A cylindrical water tank has a radius of 5 feet and a height of 12 feet. What is its volume in cubic feet? (Use $\pi \approx 3.14$)

A) A) 876.2 ft^3

B) B) 942.0 ft^3

C) C) 1,017.4 ft^3

D) D) 1,130.4 ft^3

Correct Answer: A) A) 876.2 ft^3

Explanation: The correct answer is **A) A) 876.2 ft^3**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces A) 876.2 ft^3.

QUESTION 42

In a right triangle, one leg measures 15 cm and the hypotenuse measures 25 cm. What is the length of the other leg?

A) A) 10 cm

B) B) 18 cm

C) C) 20 cm

D) D) 22 cm

Correct Answer: A) A) 10 cm

Explanation: The correct answer is **A) A) 10 cm**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives A) 10 cm.

QUESTION 43

A rectangle has a perimeter of 54 inches. If its length is three times its width, what is the area of the rectangle?

A) A) 109.69 in²

B) B) 121.50 in²

C) C) 136.69 in²

D) D) 152.25 in²

Correct Answer: A) A) 109.69 in²

Explanation: The correct answer is **A) A) 109.69 in²**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields A) 109.69 in².

QUESTION 44

Two similar triangles have corresponding sides in the ratio 3:7. If the area of the smaller triangle is 27 cm², what is the area of the larger triangle?

A) A) 63 cm²

B) B) 126 cm²

C) C) 147 cm²

D) D) 189 cm²

Correct Answer: A) A) 63 cm²

Explanation: The correct answer is **A) A) 63 cm²**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields A) 63 cm².

QUESTION 45

A ladder leans against a wall, forming a 65° angle with the ground. If the base of the ladder is 8 feet from the wall, approximately how long is the ladder? (cos 65° ≈ 0.4226)

A) A) 15.8 ft

B) B) 17.2 ft

C) C) 18.9 ft

D) D) 20.4 ft

Correct Answer: A) A) 15.8 ft

Explanation: The correct answer is **A) A) 15.8 ft**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives A) 15.8 ft.

QUESTION 46

A class of 28 students took a quiz. The scores were: 5 students scored 70, 8 students scored 80, 10 students scored 85, and 5 students scored 95. What is the mean score of the class?

A) A) 81.25

B) B) 82.50

C) C) 83.04

D) D) 84.00

Correct Answer: A) A) 81.25

Explanation: The correct answer is **A) A) 81.25**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of A) 81.25.

QUESTION 47

A jar contains 6 red marbles, 9 blue marbles, and 5 green marbles. If two marbles are drawn without replacement, what is the probability that both are blue?

A) A) 9/50

B) B) 18/95

C) C) 81/400

D) D) 36/190

Correct Answer: A) A) 9/50

Explanation: The correct answer is **A) A) 9/50**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of A) 9/50.

QUESTION 48

The following data set shows daily high temperatures (°F) for one week: 68, 72, 71, 85, 73, 70, 74. What is the interquartile range (IQR)?

A) A) 3

B) B) 4

C) C) 5

D) D) 17

Correct Answer: A) A) 3

Explanation: The correct answer is **A) A) 3**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives A) 3.

QUESTION 49

A survey of 500 adults found that 320 prefer streaming services over cable television. What is the margin of error for this proportion at a 95% confidence level? (Use z = 1.96)

A) A) ±2.8%

B) B) ±3.5%

C) C) ±4.2%

D) D) ±4.8%

Correct Answer: A) A) ±2.8%

Explanation: The correct answer is **A) A) ±2.8%**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives A) ±2.8%.

QUESTION 50

In a standard normal distribution, approximately what percentage of values fall between one standard deviation below the mean and two standard deviations above the mean?

A) A) 68%

B) B) 81.85%

C) C) 83.85%

D) D) 95%

Correct Answer: A) A) 68%

Explanation: The correct answer is **A) A) 68%**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of A) 68%.

FULL CRC EXAM

TSIA2 Simulated Exam 9 — 2026

50 Questions — Answer Key with Explanations

QUESTION 1

Read the following passage: 'The discovery of high-temperature superconductors in the 1980s revolutionized materials science. Unlike conventional superconductors that require cooling to near absolute zero, these ceramic compounds exhibited zero electrical resistance at temperatures achievable with liquid nitrogen. This breakthrough promised applications from lossless power transmission to magnetically levitated transportation. However, the brittleness of ceramic materials and difficulties in manufacturing long wires have slowed commercial adoption. Researchers continue to seek room-temperature superconductors, a goal that would transform the global energy infrastructure.' What is the author's primary purpose in this passage?

A) A) To argue that superconductors are impractical for commercial use

B) B) To persuade readers to invest in energy technology

C) C) To compare ceramic materials with metallic conductors

D) D) To describe the progress and remaining challenges in superconductor research

Correct Answer: A) A) To argue that superconductors are impractical for commercial use

Explanation: The correct answer is **A) A) To argue that superconductors are impractical for commercial use**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 2

Based on the passage above, what can be inferred about conventional superconductors?

A) A) They are made from ceramic compounds

B) B) They operate at extremely low temperatures near absolute zero

C) C) They were discovered after high-temperature superconductors

D) D) They are more brittle than high-temperature superconductors

Correct Answer: A) A) They are made from ceramic compounds

Explanation: The correct answer is **A) A) They are made from ceramic compounds**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) They are made from ceramic compounds', making it the best-supported inference over the other options.

QUESTION 3

Read the following passage: 'Marine biologists have recently discovered that healthy coral reefs produce a distinctive soundscape — a symphony of snapping shrimp, grunting fish, and crackling coral. Degraded reefs, by contrast, fall eerily silent. Scientists are now using underwater microphones to monitor reef health acoustically, a method far less invasive than traditional visual surveys conducted by divers. Preliminary trials in the Indian Ocean suggest that acoustic monitoring can detect early-stage reef decline months before visible bleaching occurs, potentially giving conservationists a crucial head start.' The word 'eerily' as used in the passage most nearly means —

A) A) pleasantly

B) B) unsettlingly

C) C) predictably

D) D) temporarily

Correct Answer: A) A) pleasantly

Explanation: The correct answer is **A) A) pleasantly**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) pleasantly', making it the best-supported inference over the other options.

QUESTION 4

Which statement best summarizes the advantage of acoustic monitoring described in the passage above?

A) A) It eliminates the need for marine biologists entirely

B) B) It is cheaper than purchasing diving equipment

C) C) It records the sounds of individual marine species for cataloging

D) D) It can identify reef decline earlier and less invasively than visual surveys

Correct Answer: A) A) It eliminates the need for marine biologists entirely

Explanation: The correct answer is **A) A) It eliminates the need for marine biologists entirely**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'A) It eliminates the need for marine biologists entirely' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 5

Select the sentence that is punctuated correctly.

A) A) The committee decided, however that the proposal needed revisions before approval.

B) B) The committee decided however, that the proposal needed revisions before approval.

C) C) The committee decided however that the proposal, needed revisions before approval.

D) D) The committee decided, however, that the proposal needed revisions before approval.

Correct Answer: A) A) The committee decided, however that the proposal needed revisions before approval.

Explanation: The correct answer is **A) A) The committee decided, however that the proposal needed revisions before approval.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 6

Which revision corrects the sentence? 'Neither the architects nor the lead engineer were available to review the updated blueprints.'

A) A) Neither the architects nor the lead engineer was available to review the updated blueprints.

B) B) Neither the architects or the lead engineer were available to review the updated blueprints.

C) C) Neither the architects nor the lead engineer are available to review the updated blueprints.

D) D) The sentence is correct as written.

Correct Answer: A) A) Neither the architects nor the lead engineer was available to review the updated blueprints.

Explanation: The correct answer is **A) A) Neither the architects nor the lead engineer was available to review the updated blueprints.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 7

Read the following passage: 'Vertical farming operations in repurposed urban warehouses are challenging assumptions about agricultural land use. By stacking hydroponic growing trays in climate-controlled environments, these facilities produce leafy greens year-round using 95 percent less water than conventional farming. Critics counter that the electricity costs for LED lighting and climate control make vertical farms economically viable only for high-value crops like herbs and salad greens. Staple crops such as wheat and rice remain impractical at current energy prices, leaving vertical farming as a supplement to, rather than a replacement for, traditional agriculture.' Which of the following best describes the organizational structure of this passage?

A) A) Chronological sequence of farming innovations

B) B) Problem followed by a single proposed solution

C) C) Comparison of two equally weighted farming methods

D) D) Presentation of benefits followed by limitations

Correct Answer: A) A) Chronological sequence of farming innovations

Explanation: The correct answer is **A) A) Chronological sequence of farming innovations**. Text structure describes how a writer arranges information — common patterns include cause/effect, compare/contrast, problem/solution, and chronological order. The sequence of ideas and transitional language in this passage most clearly reflects 'a) chronological sequence of farming innovations'.

QUESTION 8

According to the passage above, why do critics consider vertical farming limited?

A) A) Hydroponic systems cannot grow leafy greens effectively

B) B) The water savings are negligible compared to traditional farming

C) C) High energy costs restrict profitability to only certain crop types

D) D) Urban warehouses lack sufficient space for meaningful production

Correct Answer: A) A) Hydroponic systems cannot grow leafy greens effectively

Explanation: The correct answer is **A) A) Hydroponic systems cannot grow leafy greens effectively**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 9

Choose the option that best combines the two sentences: 'The archaeologist cataloged every artifact meticulously. She wanted to ensure nothing was overlooked during the excavation.'

A) A) The archaeologist cataloged every artifact meticulously she wanted to ensure nothing was overlooked during the excavation.

B) B) The archaeologist cataloged every artifact meticulously and she wanted to ensure nothing was overlooked during the excavation.

C) C) The archaeologist cataloged every artifact meticulously, she wanted to ensure nothing was overlooked during the excavation.

D) D) The archaeologist cataloged every artifact meticulously, wanting to ensure nothing was overlooked during the excavation.

Correct Answer: A) A) The archaeologist cataloged every artifact meticulously she wanted to ensure nothing was overlooked during the excavation.

Explanation: The correct answer is **A) A) The archaeologist cataloged every artifact meticulously she wanted to ensure nothing was overlooked during the excavation.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 10

Which sentence demonstrates correct use of a semicolon?

A) A) The experiment yielded surprising results; which prompted the team to repeat the trial.

B) B) The experiment; yielded surprising results, the team decided to repeat the trial.

C) C) The experiment yielded surprising results; and the team decided to repeat the trial.

D) D) The experiment yielded surprising results; the team decided to repeat the trial.

Correct Answer: A) A) The experiment yielded surprising results; which prompted the team to repeat the trial.

Explanation: The correct answer is **A) A) The experiment yielded surprising results; which prompted the team to repeat the trial.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 11

Read the following passage: 'The Sapir-Whorf hypothesis, also known as linguistic relativity, proposes that the language a person speaks influences how they perceive and categorize the world. A strong version claims language determines thought entirely, while a weaker version suggests language merely influences habitual thought patterns. Recent experiments with speakers of languages that use cardinal directions instead of relative terms like left and right showed remarkable spatial orientation abilities. These findings have reinvigorated interest in the hypothesis, though most linguists now favor the weaker interpretation over strict linguistic determinism.' What distinction does the passage draw between the two versions of the hypothesis?

A) A) One version is supported by evidence while the other is entirely discredited

B) B) One claims language controls thought completely while the other claims language shapes thought tendencies

C) C) One applies to spatial reasoning while the other applies to emotional expression

D) D) One was proposed by Sapir while the other was proposed by Whorf

Correct Answer: A) A) One version is supported by evidence while the other is entirely discredited

Explanation: The correct answer is **A) A) One version is supported by evidence while the other is entirely discredited**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) One version is supported by evidence while the other is entirely discredited', making it the best-supported inference over the other options.

QUESTION 12

The phrase 'reinvigorated interest' in the passage above suggests that —

A) A) the hypothesis had previously fallen out of scientific favor

B) B) researchers had never studied the hypothesis before

C) C) linguistic determinism has been conclusively proven

D) D) new languages were recently discovered by researchers

Correct Answer: A) A) the hypothesis had previously fallen out of scientific favor

Explanation: The correct answer is **A) A) the hypothesis had previously fallen out of scientific favor**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) the hypothesis had previously fallen out of scientific favor', making it the best-supported inference over the other options.

QUESTION 13

Identify the sentence with a misplaced modifier.

A) A) Walking through the museum, the ancient Egyptian exhibit captivated the students.

B) B) The students were captivated by the ancient Egyptian exhibit while walking through the museum.

C) C) While walking through the museum, the students were captivated by the ancient Egyptian exhibit.

D) D) The students, walking through the museum, were captivated by the ancient Egyptian exhibit.

Correct Answer: A) A) Walking through the museum, the ancient Egyptian exhibit captivated the students.

Explanation: The correct answer is **A) A) Walking through the museum, the ancient Egyptian exhibit captivated the students.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 14

Which transition word or phrase best fills the blank? 'The city council approved funding for the new park; _____, construction will not begin until environmental reviews are completed.'

A) A) furthermore

B) B) nevertheless

C) C) similarly

D) D) consequently

Correct Answer: A) A) furthermore

Explanation: The correct answer is **A) A) furthermore**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 15

Read the following passage: 'In the perpetual darkness of the deep ocean, approximately 76 percent of marine organisms produce their own light through bioluminescence. This chemical process, involving the molecule luciferin and the enzyme luciferase, serves purposes ranging from attracting prey and finding mates to startling predators. The anglerfish dangles a luminous lure above its gaping mouth, while certain squid species release glowing ink clouds to confuse attackers. Perhaps most remarkably, some organisms use counterillumination — producing light on their undersides to match the faint surface glow above them, effectively erasing their silhouettes from predators lurking below.' The passage uses the examples of the anglerfish and squid primarily to —

A) A) prove that bioluminescence is more common in fish than in squid

B) B) explain the chemical process behind bioluminescence

C) C) argue that deep-sea predators are more dangerous than surface predators

D) D) illustrate different functional uses of bioluminescence

Correct Answer: A) A) prove that bioluminescence is more common in fish than in squid

Explanation: The correct answer is **A) A) prove that bioluminescence is more common in fish than in squid**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'A) prove that bioluminescence is more common in fish than in squid' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 16

As used in the passage above, 'counterillumination' most likely refers to —

A) A) producing extremely bright flashes to blind predators permanently

B) B) reflecting sunlight from scales to create decoy images

C) C) using chemical reactions to heat the surrounding water

D) D) generating light from below to camouflage against the faint light from above

Correct Answer: A) A) producing extremely bright flashes to blind predators permanently

Explanation: The correct answer is **A) A) producing extremely bright flashes to blind predators permanently**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) producing extremely bright flashes to blind predators permanently', making it the best-supported inference over the other options.

QUESTION 17

Which sentence correctly uses parallel structure?

A) A) The internship required analyzing data, the writing of reports, and to present findings to stakeholders.

B) B) The internship required analyzing data, writing reports, and presenting findings to stakeholders.

C) C) The internship required to analyze data, writing reports, and the presentation of findings to stakeholders.

D) D) The internship required data analysis, to write reports, and presenting findings to stakeholders.

Correct Answer: A) A) The internship required analyzing data, the writing of reports, and to present findings to stakeholders.

Explanation: The correct answer is **A) A) The internship required analyzing data, the writing of reports, and to present findings to stakeholders.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option A maintains consistent grammatical form across all listed or compared elements.

QUESTION 18

Which revision eliminates the redundancy in the following sentence? 'The biography tells the life story of the artist's entire life from childhood through old age.'

A) A) The biography tells the story of the artist's entire life from childhood through old age.

B) B) The biography tells the life story of the artist from childhood through old age.

C) C) The biography tells the life story of the artist's entire life from young to old.

D) D) The biography of the artist's life tells the life story from childhood through old age.

Correct Answer: A) A) The biography tells the story of the artist's entire life from childhood through old age.

Explanation: The correct answer is **A) A) The biography tells the story of the artist's entire life from childhood through old age.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

Read the following passage: 'The ancient practice of fermentation is experiencing a modern renaissance. Once a necessity for food preservation before refrigeration, fermentation is now embraced by health-conscious consumers for its probiotic benefits. Kimchi, kombucha, and kefir have moved from niche health food stores to mainstream supermarket shelves. Scientific research has strengthened the trend: studies linking gut microbiome diversity to improved immune function, mental health, and even weight management have given fermented foods a scientific credibility that extends beyond folk tradition. However, nutritionists caution that not all fermented products deliver equal benefits — pasteurized versions may lack live cultures entirely.' The author includes the nutritionists' caution primarily to —

A) A) discourage readers from consuming fermented foods

B) B) argue that pasteurization should be eliminated from food processing

C) C) add nuance by noting that marketing claims may not always match nutritional reality

D) D) suggest that scientific research on gut health is unreliable

Correct Answer: A) A) discourage readers from consuming fermented foods

Explanation: The correct answer is **A) A) discourage readers from consuming fermented foods**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 20

Which claim from the passage above is supported by research evidence as described by the author?

A) A) Gut microbiome diversity is connected to multiple aspects of health

B) B) Fermented foods are the best method of food preservation

C) C) Kimchi is more beneficial than kombucha or kefir

D) D) All fermented products contain live probiotic cultures

Correct Answer: A) A) Gut microbiome diversity is connected to multiple aspects of health

Explanation: The correct answer is **A) A) Gut microbiome diversity is connected to multiple aspects of health**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'A) Gut microbiome diversity is connected to multiple aspects of health' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 21

Select the sentence that uses the correct form of the word.

A) A) The council's decision had a profound affect on the community's development plans.

B) B) The council's decision had a profound effect on the community's development plans.

C) C) The council's decision had a profound affective on the community's development plans.

D) D) The council's decision had a profound effecting on the community's development plans.

Correct Answer: A) A) The council's decision had a profound affect on the community's development plans.

Explanation: The correct answer is **A) A) The council's decision had a profound affect on the community's development plans.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 22

Which sentence correctly uses an appositive phrase?

A) A) Dr. Ramirez, the lead researcher presented her findings at the international conference.

B) B) Dr. Ramirez the lead researcher, presented her findings at the international conference.

C) C) Dr. Ramirez, the lead researcher, presented her findings at the international conference.

D) D) Dr. Ramirez — the lead researcher presented her findings at the international conference.

Correct Answer: A) A) Dr. Ramirez, the lead researcher presented her findings at the international conference.

Explanation: The correct answer is **A) A) Dr. Ramirez, the lead researcher presented her findings at the international conference.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 23

Read the following passage: 'Digital minimalism, a philosophy advocated by computer scientist Cal Newport, encourages people to be far more intentional about the technologies they allow into their lives. Rather than adopting every new app or platform by default, digital minimalists evaluate whether each technology genuinely supports something they deeply value. Newport distinguishes this from a mere digital detox, which he considers a temporary fix. True digital minimalism, he argues, requires rebuilding one's relationship with technology from the ground up — starting with a period of elimination and then selectively reintroducing only those tools that pass a strict value test.' Based on the passage, how does Newport distinguish digital minimalism from a digital detox?

A) A) A digital detox uses more apps than digital minimalism

B) B) A digital detox is a temporary measure while digital minimalism is a fundamental restructuring

C) C) A digital detox is recommended by doctors while digital minimalism is not

D) D) A digital detox requires purchasing new technology while digital minimalism does not

Correct Answer: A) A) A digital detox uses more apps than digital minimalism

Explanation: The correct answer is **A) A) A digital detox uses more apps than digital minimalism**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'A) A digital detox uses more apps than digital minimalism' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 24

The phrase 'pass a strict value test' in the passage above most likely means that technologies must —

A) A) be approved by Cal Newport personally before use

B) B) cost less than a specified dollar amount per month

C) C) demonstrably support the user's core priorities and values

D) D) function without an internet connection

Correct Answer: A) A) be approved by Cal Newport personally before use

Explanation: The correct answer is **A) A) be approved by Cal Newport personally before use**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) be approved by Cal Newport personally before use', making it the best-supported inference over the other options.

QUESTION 25

Which sentence correctly uses a colon?

A) A) The recipe requires: flour, sugar, eggs, and butter.

B) B) The recipe requires the following ingredients: flour, sugar, eggs, and butter.

C) C) The recipe: requires flour, sugar, eggs, and butter.

D) D) The recipe requires flour: sugar, eggs, and butter.

Correct Answer: A) A) The recipe requires: flour, sugar, eggs, and butter.

Explanation: The correct answer is **A) A) The recipe requires: flour, sugar, eggs, and butter.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 26

Choose the most concise and effective revision of the following sentence: 'Due to the fact that the weather conditions were severe and extreme, the outdoor festival that had been planned was canceled and called off.'

A) A) Because of severe weather, the planned outdoor festival was canceled.

B) B) Due to the fact that weather was severe, the outdoor festival was canceled and called off.

C) C) The outdoor festival that had been planned was canceled due to the fact that severe weather conditions occurred.

D) D) Because the weather conditions were severe and extreme, they canceled and called off the outdoor planned festival.

Correct Answer: A) A) Because of severe weather, the planned outdoor festival was canceled.

Explanation: The correct answer is **A) A) Because of severe weather, the planned outdoor festival was canceled.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 27

Read the following passage: 'When artist Harold Cohen first programmed AARON to create original drawings in the 1970s, the art world largely dismissed computer-generated art as a novelty. Five decades later, AI-generated works have sold at major auction houses for hundreds of thousands of dollars, igniting fierce debate about authorship and creativity. Supporters argue that the human programmer's vision, training data curation, and aesthetic judgment constitute genuine artistic expression. Detractors insist that true art requires intentionality and emotional experience that machines fundamentally lack. The debate reveals less about machine capabilities than about our own uncertain definitions of what it means to create.' The final sentence of the passage suggests that —

A) A) machines will never be capable of producing art

B) B) the controversy exposes ambiguity in how humans define creativity itself

C) C) auction house prices are the best measure of artistic value

D) D) Harold Cohen's AARON program was the most advanced AI artist

Correct Answer: A) A) machines will never be capable of producing art

Explanation: The correct answer is **A) A) machines will never be capable of producing art**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'A) machines will never be capable of producing art', making it the best-supported inference over the other options.

QUESTION 28

In the passage above, the author presents the views of supporters and detractors primarily to —

A) A) convince readers that AI art is superior to human art

B) B) demonstrate that only one side of the debate has valid arguments

C) C) show the range of perspectives in an ongoing cultural debate

D) D) prove that the art world has fully accepted AI-generated works

Correct Answer: A) A) convince readers that AI art is superior to human art

Explanation: The correct answer is **A) A) convince readers that AI art is superior to human art**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'A) convince readers that AI art is superior to human art' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 29

Which sentence contains a subject-verb agreement error?

A) A) The collection of rare manuscripts was donated to the university library.

B) B) Each of the volunteers has completed the required training sessions.

C) C) The board of directors have approved the new strategic initiative unanimously.

D) D) Every student and faculty member is expected to attend the assembly.

Correct Answer: A) A) The collection of rare manuscripts was donated to the university library.

Explanation: The correct answer is **A) A) The collection of rare manuscripts was donated to the university library.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option A is grammatically correct.

QUESTION 30

Read the following draft paragraph: '(1) The town's annual harvest festival draws visitors from across the region. (2) Local farmers display their finest produce at judging competitions. (3) The first automobile was invented in 1886 by Karl Benz. (4) Children enjoy hayrides, corn mazes, and live music performances throughout the weekend.' Which sentence should be removed to improve the coherence of the paragraph?

A) A) Sentence 1

B) B) Sentence 2

C) C) Sentence 3

D) D) Sentence 4

Correct Answer: A) A) Sentence 1

Explanation: The correct answer is **A) A) Sentence 1**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 31

A store offers a 15% discount on a jacket originally priced at $80. If sales tax of 7.5% is applied after the discount, what is the total cost?

A) A) $68.00

B) B) $73.10

C) C) $74.20

D) D) $72.00

Correct Answer: A) A) $68.00

Explanation: The correct answer is **A) A) $68.00**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 32

A recipe calls for 3/4 cup of sugar for every 2 cups of flour. If a baker uses 8 cups of flour, how many cups of sugar are needed?

A) A) 2 cups

B) B) 2.5 cups

C) C) 3 cups

D) D) 3.5 cups

Correct Answer: A) A) 2 cups

Explanation: The correct answer is **A) A) 2 cups**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 33

An investment of $6,000 earns simple interest at 5% annually. What is the total amount (principal plus interest) after 4 years?

A) A) $6,300

B) B) $7,200

C) C) $7,800

D) D) $7,293.04

Correct Answer: A) A) $6,300

Explanation: The correct answer is **A) A) $6,300**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 34

A car travels 270 miles using 10 gallons of gasoline. At this rate, how many gallons are needed to travel 405 miles?

A) A) 13 gallons

B) B) 14 gallons

C) C) 15 gallons

D) D) 16 gallons

Correct Answer: A) A) 13 gallons

Explanation: The correct answer is **A) A) 13 gallons**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to A) 13 gallons.

QUESTION 35

After a 20% discount, a laptop costs $680. What was the original price before the discount?

A) A) $800

B) B) $816

C) C) $850

D) D) $880

Correct Answer: A) A) $800

Explanation: The correct answer is **A) A) $800**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 36

Solve for x: 5(x - 3) + 7 = 3(x + 1)

A) A) x = 5

B) B) x = 1/2

C) C) x = 4

D) D) x = 11/2

Correct Answer: A) A) x = 5

Explanation: The correct answer is **A) A) x = 5**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to A) x = 5.

QUESTION 37

What is the slope of the line passing through the points (-2, 7) and (4, -5)?

A) A) -2

B) B) 2

C) C) -1/2

D) D) 1/2

Correct Answer: A) A) -2

Explanation: The correct answer is **A) A) -2**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option A.

QUESTION 38

Factor completely: 3x^2 + 14x - 5

A) A) (3x - 1)(x + 5)

B) B) (3x + 5)(x - 1)

C) C) (3x + 1)(x - 5)

D) D) (3x - 5)(x + 1)

Correct Answer: A) A) (3x - 1)(x + 5)

Explanation: The correct answer is **A) A) (3x - 1)(x + 5)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields A) (3x - 1)(x + 5).

QUESTION 39

Solve the system of equations: 2x + 3y = 12 and x - y = 1

A) A) x = 2, y = 3

B) B) x = 1, y = 0

C) C) x = 4, y = 3

D) D) x = 3, y = 2

Correct Answer: A) A) x = 2, y = 3

Explanation: The correct answer is **A) A) x = 2, y = 3**. Systems of linear equations can be solved by substitution (expressing one variable in terms of the other and substituting) or elimination (adding/subtracting equations to cancel a variable). Applying either method to this system yields the solution A) x = 2, y = 3.

QUESTION 40

Which equation represents a line perpendicular to y = (2/3)x + 4 and passing through the point (6, 1)?

A) A) y = -(3/2)x + 10

B) B) y = (2/3)x - 3

C) C) y = -(2/3)x + 5

D) D) y = (3/2)x - 8

Correct Answer: A) A) y = -(3/2)x + 10

Explanation: The correct answer is **A) A) y = -(3/2)x + 10**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to A) y = -(3/2)x + 10.

QUESTION 41

A rectangular garden has a perimeter of 56 feet. If the length is 4 feet more than twice the width, what is the area of the garden in square feet?

A) A) 160 sq ft

B) B) 168 sq ft

C) C) 176 sq ft

D) D) 180 sq ft

Correct Answer: A) A) 160 sq ft

Explanation: The correct answer is **A) A) 160 sq ft**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields A) 160 sq ft.

QUESTION 42

A cylinder has a radius of 5 cm and a height of 12 cm. What is its volume? (Use pi = 3.14)

A) A) 942 cm^3

B) B) 376.8 cm^3

C) C) 188.4 cm^3

D) D) 1,884 cm^3

Correct Answer: A) A) 942 cm^3

Explanation: The correct answer is **A) A) 942 cm^3**. Volume formulas: rectangular prism = l×w×h; cylinder = πr²h; cone = ⅓πr²h; sphere = (4/3)πr³. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces A) 942 cm^3.

QUESTION 43

In a right triangle, one leg measures 9 units and the hypotenuse measures 15 units. What is the length of the other leg?

A) A) 6 units

B) B) 10 units

C) C) 14 units

D) D) 12 units

Correct Answer: A) A) 6 units

Explanation: The correct answer is **A) A) 6 units**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives A) 6 units.

QUESTION 44

A circle has an area of 154 square centimeters. What is its approximate circumference? (Use pi = 22/7)

A) A) 44 cm

B) B) 49 cm

C) C) 38.5 cm

D) D) 88 cm

Correct Answer: A) A) 44 cm

Explanation: The correct answer is **A) A) 44 cm**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields A) 44 cm.

QUESTION 45

Two similar triangles have corresponding sides in a ratio of 3:5. If the area of the smaller triangle is 36 square inches, what is the area of the larger triangle?

A) A) 100 sq in

B) B) 60 sq in

C) C) 75 sq in

D) D) 90 sq in

Correct Answer: A) A) 100 sq in

Explanation: The correct answer is **A) A) 100 sq in**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields A) 100 sq in.

QUESTION 46

A bag contains 5 red marbles, 8 blue marbles, and 7 green marbles. If one marble is drawn at random, what is the probability that it is NOT blue?

A) A) 2/5

B) B) 7/20

C) C) 8/20

D) D) 3/5

Correct Answer: A) A) 2/5

Explanation: The correct answer is **A) A) 2/5**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of A) 2/5.

QUESTION 47

The test scores for seven students are: 72, 85, 90, 68, 95, 85, 77. What is the median score?

A) A) 77

B) B) 81.7

C) C) 85

D) D) 82

Correct Answer: A) A) 77

Explanation: The correct answer is **A) A) 77**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of A) 77.

QUESTION 48

A student scores 78, 82, 91, and 85 on four exams. What score must the student earn on a fifth exam to achieve an overall average of exactly 85?

A) A) 87

B) B) 88

C) C) 89

D) D) 90

Correct Answer: A) A) 87

Explanation: The correct answer is **A) A) 87**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of A) 87.

QUESTION 49

Two six-sided dice are rolled. What is the probability that the sum of the two dice equals 9?

A) A) 1/12

B) B) 5/36

C) C) 1/6

D) D) 1/9

Correct Answer: A) A) 1/12

Explanation: The correct answer is **A) A) 1/12**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of A) 1/12.

QUESTION 50

A data set has a mean of 50 and a standard deviation of 8. Using the empirical rule (68-95-99.7), approximately what percentage of data falls between 34 and 66?

A) A) 68%

B) B) 95%

C) C) 99.7%

D) D) 84%

Correct Answer: A) A) 68%

Explanation: The correct answer is **A) A) 68%**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of A) 68%.

FULL CRC EXAM

TSIA2 Simulated Exam 10 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

The Arctic tundra represents one of Earth's most fragile ecosystems, where permafrost—permanently frozen ground—acts as a critical foundation for the entire biological community. Recent studies indicate that rising global temperatures are causing unprecedented permafrost thaw, releasing methane and carbon dioxide that have been trapped for millennia. This creates a feedback loop: warming causes thaw, which releases greenhouse gases, which accelerates warming. Indigenous communities who have inhabited these regions for thousands of years report dramatic changes in animal migration patterns, ice stability, and traditional food sources. The implications extend far beyond the Arctic itself, as the region plays a crucial role in regulating global climate patterns and sea levels.

A) According to the passage, what is the primary concern regarding permafrost thaw?

B) 1) It disrupts animal migration patterns only

C) 2) It creates a self-reinforcing cycle of warming

D) 3) It affects indigenous food sources exclusively

Correct Answer: A) According to the passage, what is the primary concern regarding permafrost thaw?

Explanation: The correct answer is **A) According to the passage, what is the primary concern regarding permafrost thaw?**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives According to the passage, what is the primary concern regarding permafrost thaw?.

QUESTION 2

The Arctic tundra represents one of Earth's most fragile ecosystems, where permafrost—permanently frozen ground—acts as a critical foundation for the entire biological community. Recent studies indicate that rising global temperatures are causing unprecedented permafrost thaw, releasing methane and carbon dioxide that have been trapped for millennia. This creates a feedback loop: warming causes thaw, which releases greenhouse gases, which accelerates warming. Indigenous communities who have inhabited these regions for thousands of years report dramatic changes in animal migration patterns, ice stability, and traditional food sources. The implications extend far beyond the Arctic itself, as the region plays a crucial role in regulating global climate patterns and sea levels.

A) The author's use of the phrase 'fragile ecosystems' in the first sentence primarily serves to:

B) 1) Emphasize the vulnerability of the Arctic environment

C) 2) Contrast Arctic regions with tropical ecosystems

D) 3) Introduce a scientific classification system

Correct Answer: A) The author's use of the phrase 'fragile ecosystems' in the first sentence primarily serves to:

Explanation: The correct answer is **A) The author's use of the phrase 'fragile ecosystems' in the first sentence primarily serves to:**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives The author's use of the phrase 'fragile ecosystems' in the first sentence primarily serves to:.

QUESTION 3

The Arctic tundra represents one of Earth's most fragile ecosystems, where permafrost—permanently frozen ground—acts as a critical foundation for the entire biological community. Recent studies indicate that rising global temperatures are causing unprecedented permafrost thaw, releasing methane and carbon dioxide that have been trapped for millennia. This creates a feedback loop: warming causes thaw, which releases greenhouse gases, which accelerates warming. Indigenous communities who have inhabited these regions for thousands of years report dramatic changes in animal migration patterns, ice stability, and traditional food sources. The implications extend far beyond the Arctic itself, as the region plays a crucial role in regulating global climate patterns and sea levels.

A) Which statement best describes the relationship between indigenous observations and scientific findings presented in the passage?

B) 1) Indigenous reports contradict scientific data

C) 2) Scientific studies validate indigenous observations

D) 3) Indigenous knowledge is presented as anecdotal only

Correct Answer: A) Which statement best describes the relationship between indigenous observations and scientific findings presented in the passage?

Explanation: The correct answer is **A) Which statement best describes the relationship between indigenous observations and scientific findings presented in the passage?**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives Which statement best describes the relationship between indigenous observations and scientific findings presented in the passage?.

QUESTION 4

The Arctic tundra represents one of Earth's most fragile ecosystems, where permafrost—permanently frozen ground—acts as a critical foundation for the entire biological community. Recent studies indicate that rising global temperatures are causing unprecedented permafrost thaw, releasing methane and carbon dioxide that have been trapped for millennia. This creates a feedback loop: warming causes thaw, which releases greenhouse gases, which accelerates warming. Indigenous communities who have inhabited these regions for thousands of years report dramatic changes in animal migration patterns, ice stability, and traditional food sources. The implications extend far beyond the Arctic itself, as the region plays a crucial role in regulating global climate patterns and sea levels.

A) The passage suggests that Arctic climate changes:

B) 1) Are limited to the polar region

C) 2) Have global environmental consequences

D) 3) Affect only indigenous populations

Correct Answer: A) The passage suggests that Arctic climate changes:

Explanation: The correct answer is **A) The passage suggests that Arctic climate changes:**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives The passage suggests that Arctic climate changes:.

QUESTION 5

The evolution of digital privacy laws reflects society's struggle to balance technological innovation with individual rights. The European Union's General Data Protection Regulation (GDPR), implemented in 2018, established stringent requirements for how organizations collect, store, and utilize personal data. Companies must now obtain explicit consent, provide transparent privacy policies, and allow users to access or delete their information. Critics argue these regulations stifle innovation and create compliance burdens, particularly for small businesses. Proponents counter that privacy is a fundamental right that requires protection in an era of unprecedented data collection. The debate intensifies as artificial intelligence and machine learning systems require vast datasets to function effectively, creating tension between technological advancement and privacy preservation.

A) What is the main conflict described in the passage?

B) 1) European versus American privacy standards

C) 2) Small businesses versus large corporations

D) 3) Innovation and efficiency versus privacy rights

Correct Answer: A) What is the main conflict described in the passage?

Explanation: The correct answer is **A) What is the main conflict described in the passage?**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives What is the main conflict described in the passage?.

QUESTION 6

The evolution of digital privacy laws reflects society's struggle to balance technological innovation with individual rights. The European Union's General Data Protection Regulation (GDPR), implemented in 2018, established stringent requirements for how organizations collect, store, and utilize personal data. Companies must now obtain explicit consent, provide transparent privacy policies, and allow users to access or delete their information. Critics argue these regulations stifle innovation and create compliance burdens, particularly for small businesses. Proponents counter that privacy is a fundamental right that requires protection in an era of unprecedented data collection. The debate intensifies as artificial intelligence and machine learning systems require vast datasets to function effectively, creating tension between technological advancement and privacy preservation.

A) According to the passage, the GDPR requires companies to:

B) 1) Eliminate all data collection practices

C) 2) Obtain explicit user consent for data use

D) 3) Share data only with government agencies

Correct Answer: A) According to the passage, the GDPR requires companies to:

Explanation: The correct answer is **A) According to the passage, the GDPR requires companies to:**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives According to the passage, the GDPR requires companies to:.

QUESTION 7

The evolution of digital privacy laws reflects society's struggle to balance technological innovation with individual rights. The European Union's General Data Protection Regulation (GDPR), implemented in 2018, established stringent requirements for how organizations collect, store, and utilize personal data. Companies must now obtain explicit consent, provide transparent privacy policies, and allow users to access or delete their information. Critics argue these regulations stifle innovation and create compliance burdens, particularly for small businesses. Proponents counter that privacy is a fundamental right that requires protection in an era of unprecedented data collection. The debate intensifies as artificial intelligence and machine learning systems require vast datasets to function effectively, creating tension between technological advancement and privacy preservation.

A) The author presents the debate over privacy regulations as:

B) 1) Completely one-sided favoring regulations

C) 2) Irrelevant to technological progress

D) 3) Having valid concerns on both sides

Correct Answer: A) The author presents the debate over privacy regulations as:

Explanation: The correct answer is **A) The author presents the debate over privacy regulations as:**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives The author presents the debate over privacy regulations as:.

QUESTION 8

The evolution of digital privacy laws reflects society's struggle to balance technological innovation with individual rights. The European Union's General Data Protection Regulation (GDPR), implemented in 2018, established stringent requirements for how organizations collect, store, and utilize personal data. Companies must now obtain explicit consent, provide transparent privacy policies, and allow users to access or delete their information. Critics argue these regulations stifle innovation and create compliance burdens, particularly for small businesses. Proponents counter that privacy is a fundamental right that requires protection in an era of unprecedented data collection. The debate intensifies as artificial intelligence and machine learning systems require vast datasets to function effectively, creating tension between technological advancement and privacy preservation.

A) Which inference about AI development is best supported by the passage?

B) 1) AI systems function without any data requirements

C) 2) Privacy regulations have eliminated AI research

D) 3) AI advancement may conflict with privacy protection

Correct Answer: A) Which inference about AI development is best supported by the passage?

Explanation: The correct answer is **A) Which inference about AI development is best supported by the passage?**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives Which inference about AI development is best supported by the passage?.

QUESTION 9

Urban agriculture is transforming cityscapes from concrete jungles into productive green spaces. Rooftop gardens, vertical farms, and community plots are emerging as viable solutions to food security challenges in densely populated areas. These initiatives provide fresh produce to neighborhoods often classified as 'food deserts'—areas lacking access to affordable, nutritious food. Beyond nutritional benefits, urban farms create community connections, reduce carbon footprints by minimizing transportation distances, and mitigate urban heat island effects through increased vegetation. However, challenges persist: contaminated soil from industrial legacy, limited space, water access issues, and the economics of small-scale production. Despite these obstacles, cities like Detroit, Singapore, and Havana demonstrate that urban agriculture can significantly contribute to sustainable food systems when supported by appropriate policies and community engagement.

A) What is meant by 'food deserts' as used in the passage?

B) 1) Agricultural regions suffering from drought

C) 2) Urban areas without access to nutritious food

D) 3) Abandoned farmland within city limits

Correct Answer: A) What is meant by 'food deserts' as used in the passage?

Explanation: The correct answer is **A) What is meant by 'food deserts' as used in the passage?**. The midpoint formula is M = $((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is d = $\text{sqrt}((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces What is meant by 'food deserts' as used in the passage?.

QUESTION 10

Urban agriculture is transforming cityscapes from concrete jungles into productive green spaces. Rooftop gardens, vertical farms, and community plots are emerging as viable solutions to food security challenges in densely populated areas. These initiatives provide fresh produce to neighborhoods often classified as 'food deserts'—areas lacking access to affordable, nutritious food. Beyond nutritional benefits, urban farms create community connections, reduce carbon footprints by minimizing transportation distances, and mitigate urban heat island effects through increased vegetation. However, challenges persist: contaminated soil from industrial legacy, limited space, water access issues, and the economics of small-scale production. Despite these obstacles, cities like Detroit, Singapore, and Havana demonstrate that urban agriculture can significantly contribute to sustainable food systems when supported by appropriate policies and community engagement.

A) Which of the following is NOT mentioned as a benefit of urban agriculture?

B) 1) Reducing transportation-related carbon emissions

C) 2) Decreasing urban temperature through plants

D) 3) Increasing property values in all neighborhoods

Correct Answer: A) Which of the following is NOT mentioned as a benefit of urban agriculture?

Explanation: The correct answer is **A) Which of the following is NOT mentioned as a benefit of urban agriculture?**. The midpoint formula is M = $((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is d = $\text{sqrt}((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces Which of the following is NOT mentioned as a benefit of urban agriculture?.

QUESTION 11

Urban agriculture is transforming cityscapes from concrete jungles into productive green spaces. Rooftop gardens, vertical farms, and community plots are emerging as viable solutions to food security challenges in densely populated areas. These initiatives provide fresh produce to neighborhoods often classified as 'food deserts'—areas lacking access to affordable, nutritious food. Beyond nutritional benefits, urban farms create community connections, reduce carbon footprints by minimizing transportation distances, and mitigate urban heat island effects through increased vegetation. However, challenges persist: contaminated soil from industrial legacy, limited space, water access issues, and the economics of small-scale production. Despite these obstacles, cities like Detroit, Singapore, and Havana demonstrate that urban agriculture can significantly contribute to sustainable food systems when supported by appropriate policies and community engagement.

A) The passage suggests that successful urban agriculture requires:

B) 1) Elimination of all industrial activities in cities

C) 2) Policy support and community involvement

D) 3) Replacement of traditional farming methods

Correct Answer: A) The passage suggests that successful urban agriculture requires:

Explanation: The correct answer is **A) The passage suggests that successful urban agriculture requires:**. The midpoint formula is M = $((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is d = $\text{sqrt}((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces The passage suggests that successful urban agriculture requires:.

QUESTION 12

Urban agriculture is transforming cityscapes from concrete jungles into productive green spaces. Rooftop gardens, vertical farms, and community plots are emerging as viable solutions to food security challenges in densely populated areas. These initiatives provide fresh produce to neighborhoods often classified as 'food deserts'—areas lacking access to affordable, nutritious food. Beyond nutritional benefits, urban farms create community connections, reduce carbon footprints by minimizing transportation distances, and mitigate urban heat island effects through increased vegetation. However, challenges persist: contaminated soil from industrial legacy, limited space, water access issues, and the economics of small-scale production. Despite these obstacles, cities like Detroit, Singapore, and Havana demonstrate that urban agriculture can significantly contribute to sustainable food systems when supported by appropriate policies and community engagement.

A) The author's tone toward urban agriculture can best be described as:

B) 1) Cautiously optimistic despite acknowledging challenges

C) 2) Completely skeptical of its potential benefits

D) 3) Unconditionally enthusiastic without criticism

Correct Answer: A) The author's tone toward urban agriculture can best be described as:

Explanation: The correct answer is **A) The author's tone toward urban agriculture can best be described as:**. The midpoint formula is M = $((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is d = $\text{sqrt}((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces The author's tone toward urban agriculture can best be described as:.

QUESTION 13

Sleep research has revealed that the human brain performs critical maintenance functions during rest that are impossible during waking hours. The glymphatic system—a waste clearance mechanism—operates primarily during sleep, removing toxic proteins and metabolic byproducts that accumulate throughout the day. Chronic sleep deprivation impairs this process, potentially contributing to neurodegenerative diseases. Additionally, sleep consolidates memories, with different sleep stages serving distinct cognitive functions: deep sleep strengthens declarative memories (facts and events), while REM sleep enhances procedural memories (skills and tasks). The pervasive 'sleep is for the weak' mentality in modern society ignores these biological necessities. Studies demonstrate that even moderate sleep restriction—six hours instead of eight—produces measurable deficits in attention, decision-making, and emotional regulation. Understanding sleep as active recovery rather than passive downtime could revolutionize approaches to education, workplace productivity, and public health.

A) According to the passage, the glymphatic system:

B) 1) Functions equally well during waking and sleeping

C) 2) Removes waste products primarily during sleep

D) 3) Operates only during REM sleep stages

Correct Answer: A) According to the passage, the glymphatic system:

Explanation: The correct answer is **A) According to the passage, the glymphatic system:**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives According to the passage, the glymphatic system:.

QUESTION 14

Sleep research has revealed that the human brain performs critical maintenance functions during rest that are impossible during waking hours. The glymphatic system—a waste clearance mechanism—operates primarily during sleep, removing toxic proteins and metabolic byproducts that accumulate throughout the day. Chronic sleep deprivation impairs this process, potentially contributing to neurodegenerative diseases. Additionally, sleep consolidates memories, with different sleep stages serving distinct cognitive functions: deep sleep strengthens declarative memories (facts and events), while REM sleep enhances procedural memories (skills and tasks). The pervasive 'sleep is for the weak' mentality in modern society ignores these biological necessities. Studies demonstrate that even moderate sleep restriction—six hours instead of eight—produces measurable deficits in attention, decision-making, and emotional regulation. Understanding sleep as active recovery rather than passive downtime could revolutionize approaches to education, workplace productivity, and public health.

A) The passage distinguishes between deep sleep and REM sleep by:

B) 1) Their duration in the sleep cycle

C) 2) The types of memories they help consolidate

D) 3) Their effects on physical versus mental health

Correct Answer: A) The passage distinguishes between deep sleep and REM sleep by:

Explanation: The correct answer is **A) The passage distinguishes between deep sleep and REM sleep by:**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives The passage distinguishes between deep sleep and REM sleep by:.

QUESTION 15

Sleep research has revealed that the human brain performs critical maintenance functions during rest that are impossible during waking hours. The glymphatic system—a waste clearance mechanism—operates primarily during sleep, removing toxic proteins and metabolic byproducts that accumulate throughout the day. Chronic sleep deprivation impairs this process, potentially contributing to neurodegenerative diseases. Additionally, sleep consolidates memories, with different sleep stages serving distinct cognitive functions: deep sleep strengthens declarative memories (facts and events), while REM sleep enhances procedural memories (skills and tasks). The pervasive 'sleep is for the weak' mentality in modern society ignores these biological necessities. Studies demonstrate that even moderate sleep restriction—six hours instead of eight—produces measurable deficits in attention, decision-making, and emotional regulation. Understanding sleep as active recovery rather than passive downtime could revolutionize approaches to education, workplace productivity, and public health.

A) What does the author imply about modern attitudes toward sleep?

B) 1) They accurately reflect biological needs

C) 2) They prioritize health over productivity

D) 3) They contradict scientific understanding

Correct Answer: A) What does the author imply about modern attitudes toward sleep?

Explanation: The correct answer is **A) What does the author imply about modern attitudes toward sleep?**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives What does the author imply about modern attitudes toward sleep?.

QUESTION 16

Sleep research has revealed that the human brain performs critical maintenance functions during rest that are impossible during waking hours. The glymphatic system—a waste clearance mechanism—operates primarily during sleep, removing toxic proteins and metabolic byproducts that accumulate throughout the day. Chronic sleep deprivation impairs this process, potentially contributing to neurodegenerative diseases. Additionally, sleep consolidates memories, with different sleep stages serving distinct cognitive functions: deep sleep strengthens declarative memories (facts and events), while REM sleep enhances procedural memories (skills and tasks). The pervasive 'sleep is for the weak' mentality in modern society ignores these biological necessities. Studies demonstrate that even moderate sleep restriction—six hours instead of eight—produces measurable deficits in attention, decision-making, and emotional regulation. Understanding sleep as active recovery rather than passive downtime could revolutionize approaches to education, workplace productivity, and public health.

A) The phrase 'active recovery' in the final sentence suggests that sleep:

B) 1) Requires physical exercise during rest

C) 2) Involves important biological processes

D) 3) Is less important than previously thought

Correct Answer: A) The phrase 'active recovery' in the final sentence suggests that sleep:

Explanation: The correct answer is **A) The phrase 'active recovery' in the final sentence suggests that sleep:**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives The phrase 'active recovery' in the final sentence suggests that sleep:.

QUESTION 17

Sleep research has revealed that the human brain performs critical maintenance functions during rest that are impossible during waking hours. The glymphatic system—a waste clearance mechanism—operates primarily during sleep, removing toxic proteins and metabolic byproducts that accumulate throughout the day. Chronic sleep deprivation impairs this process, potentially contributing to neurodegenerative diseases. Additionally, sleep consolidates memories, with different sleep stages serving distinct cognitive functions: deep sleep strengthens declarative memories (facts and events), while REM sleep enhances procedural memories (skills and tasks). The pervasive 'sleep is for the weak' mentality in modern society ignores these biological necessities. Studies demonstrate that even moderate sleep restriction—six hours instead of eight—produces measurable deficits in attention, decision-making, and emotional regulation. Understanding sleep as active recovery rather than passive downtime could revolutionize approaches to education, workplace productivity, and public health.

A) Which conclusion is best supported by the passage?

B) 1) Eight hours of sleep is unnecessary for most people

C) 2) Memory consolidation occurs only during waking hours

D) 3) Sleep deprivation has measurable cognitive consequences

Correct Answer: A) Which conclusion is best supported by the passage?

Explanation: The correct answer is **A) Which conclusion is best supported by the passage?**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives Which conclusion is best supported by the passage?.

QUESTION 18

The committee members discussed the proposal, reviewed the budget, and they were analyzing the timeline.

A) Which revision best corrects the parallel structure error?

B) 1) The committee members discussed the proposal, reviewed the budget, and analyzed the timeline.

C) 2) The committee members were discussing the proposal, reviewing the budget, and they analyzed the timeline.

D) 3) The committee members discuss the proposal, review the budget, and analyzing the timeline.

Correct Answer: A) Which revision best corrects the parallel structure error?

Explanation: The correct answer is **A) Which revision best corrects the parallel structure error?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 19

Neither the students nor the teacher were aware of the schedule change.

A) Which analysis of this sentence is correct?

B) 1) The sentence is correct as written

C) 2) 'Were' should be 'was' to agree with 'teacher'

D) 3) 'Neither' should be changed to 'either'

Correct Answer: A) Which analysis of this sentence is correct?

Explanation: The correct answer is **A) Which analysis of this sentence is correct?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 20

The research team published their findings in a prestigious journal, this achievement brought recognition to the university.

A) Which revision best corrects the comma splice?

B) 1) The research team published their findings in a prestigious journal; this achievement brought recognition to the university.

C) 2) The research team published their findings in a prestigious journal this achievement brought recognition to the university.

D) 3) The research team published their findings, in a prestigious journal, this achievement brought recognition to the university.

Correct Answer: A) Which revision best corrects the comma splice?

Explanation: The correct answer is **A) Which revision best corrects the comma splice?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 21

Between you and I, the presentation could have been more engaging.

A) Which word should be corrected?

B) 1) Between should be among

C) 2) I should be me

D) 3) Could should be can

Correct Answer: A) Which word should be corrected?

Explanation: The correct answer is **A) Which word should be corrected?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 22

The archaeologists discovered artifacts that dated back to ancient civilizations; moreover, they found evidence of advanced metallurgy.

A) Which best describes the function of 'moreover' in this sentence?

B) 1) It shows contrast between ideas

C) 2) It indicates a cause-and-effect relationship

D) 3) It adds additional supporting information

Correct Answer: A) Which best describes the function of 'moreover' in this sentence?

Explanation: The correct answer is **A) Which best describes the function of 'moreover' in this sentence?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 23

Each of the candidates have submitted their application materials before the deadline.

A) Which revision corrects the error?

B) 1) Each of the candidates has submitted their application materials before the deadline.

C) 2) Each of the candidates have submitted his or her application materials before the deadline.

D) 3) Each of the candidates has submitted his or her application materials before the deadline.

Correct Answer: A) Which revision corrects the error?

Explanation: The correct answer is **A) Which revision corrects the error?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 24

The novel explores themes of identity and belonging, the author draws on personal experiences to create authentic characters.

A) Which revision best improves this sentence?

B) 1) The novel explores themes of identity and belonging; and the author draws on personal experiences to create authentic characters.

C) 2) The novel explores themes of identity and belonging, however, the author draws on personal experiences to create authentic characters.

D) 3) Drawing on personal experiences to create authentic characters, the novel explores themes of identity and belonging.

Correct Answer: D) 3) Drawing on personal experiences to create authentic characters, the novel explores themes of identity and belonging.

Explanation: The correct answer is **D) 3) Drawing on personal experiences to create authentic characters, the novel explores themes of identity and belonging.**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option D. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 25

The museum's new exhibition features works by contemporary artists who challenge traditional perceptions of beauty.

A) Which word functions as an adjective in this sentence?

B) 1) museum's

C) 2) features

D) 3) traditional

Correct Answer: A) Which word functions as an adjective in this sentence?

Explanation: The correct answer is **A) Which word functions as an adjective in this sentence?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 26

Having completed the training program, the certification exam was scheduled for the following month.

A) Which revision corrects the dangling modifier?

B) 1) Having completed the training program, the following month was scheduled for the certification exam.

C) 2) The certification exam was scheduled for the following month, having completed the training program.

D) 3) Having completed the training program, the participants scheduled the certification exam for the following month.

Correct Answer: C) 2) The certification exam was scheduled for the following month, having completed the training program.

Explanation: The correct answer is **C) 2) The certification exam was scheduled for the following month, having completed the training program.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 27

The company's new policy affects all employees, regardless of their position or tenure.

A) In this sentence, 'affects' is used correctly because:

B) 1) It means 'to influence or produce a change'

C) 2) It means 'to pretend or assume'

D) 3) It is a noun meaning 'result'

Correct Answer: A) In this sentence, 'affects' is used correctly because:

Explanation: The correct answer is **A) In this sentence, 'affects' is used correctly because:**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 28

The documentary was both informative and inspiring, it motivated viewers to take action on climate change.

A) Which revision best corrects this sentence?

B) 1) The documentary was both informative and inspiring, however, it motivated viewers to take action on climate change.

C) 2) The documentary was both informative and inspiring; it motivated viewers to take action on climate change.

D) 3) The documentary was both informative and inspiring it motivated viewers to take action on climate change.

Correct Answer: B) 1) The documentary was both informative and inspiring, however, it motivated viewers to take action on climate change.

Explanation: The correct answer is **B) 1) The documentary was both informative and inspiring, however, it motivated viewers to take action on climate change.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 29

The professor's lecture on quantum mechanics was so complex that few students grasped the fundamental concepts.

A) Which best describes the relationship between the clauses?

B) 1) The second clause shows the result of the first

C) 2) The second clause contradicts the first

D) 3) The second clause provides an example of the first

Correct Answer: A) Which best describes the relationship between the clauses?

Explanation: The correct answer is **A) Which best describes the relationship between the clauses?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 30

While some historians emphasize economic factors, others argue that cultural influences were more significant in shaping the revolution.

A) This sentence is effective because it:

B) 1) Uses passive voice throughout

C) 2) Presents contrasting viewpoints clearly

D) 3) Avoids taking a position on the topic

Correct Answer: A) This sentence is effective because it:

Explanation: The correct answer is **A) This sentence is effective because it:**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields This sentence is effective because it:.

QUESTION 31

A bakery sells cupcakes for $3.50 each and cookies for $1.75 each. If a customer buys 8 cupcakes and 12 cookies, what is the total cost before tax?

A) 1) $42.00

B) 2) $49.00

C) 3) $35.00

D) 4) $56.00

Correct Answer: B) 2) $49.00

Explanation: The correct answer is **B) 2) $49.00**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 32

A car travels 285 miles on 12 gallons of gas. At this rate, how many miles can it travel on 20 gallons?

A) 1) 475 miles

B) 2) 450 miles

C) 3) 500 miles

D) 4) 425 miles

Correct Answer: A) 1) 475 miles

Explanation: The correct answer is **A) 1) 475 miles**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 1) 475 miles.

QUESTION 33

A shirt originally priced at $65 is on sale for 30% off. What is the sale price?

A) 1) $45.50

B) 2) $35.00

C) 3) $19.50

D) 4) $52.00

Correct Answer: A) 1) $45.50

Explanation: The correct answer is **A) 1) $45.50**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 34

If 5/8 of a number is 45, what is 3/4 of that number?

A) 1) 54

B) 2) 60

C) 3) 48

D) 4) 72

Correct Answer: A) 1) 54

Explanation: The correct answer is **A) 1) 54**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 35

A recipe that serves 6 people calls for 2.5 cups of flour. How many cups of flour are needed to serve 15 people?

A) 1) 6.25 cups

B) 2) 5.5 cups

C) 3) 7.5 cups

D) 4) 6.0 cups

Correct Answer: A) 1) 6.25 cups

Explanation: The correct answer is **A) 1) 6.25 cups**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 36

Solve for x: 3(2x - 5) = 4x + 7

A) 1) x = 11

B) 2) x = 5.5

C) 3) x = 4

D) 4) x = 8

Correct Answer: A) 1) x = 11

Explanation: The correct answer is **A) 1) x = 11**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 1) x = 11.

QUESTION 37

If $f(x) = 2x^2 - 3x + 1$, what is f(-2)?

A) 1) 15

B) 2) 11

C) 3) 3

D) 4) 7

Correct Answer: B) 2) 11

Explanation: The correct answer is **B) 2) 11**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 2) 11.

QUESTION 38

Which expression is equivalent to $(3x^2y^3)^2$?

A) 1) $6x^4y^6$

B) 2) $9x^4y^6$

C) 3) $9x^4y^5$

D) 4) $3x^4y^6$

Correct Answer: B) 2) $9x^4y^6$

Explanation: The correct answer is **B) 2) $9x^4y^6$**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 2) $9x^4y^6$.

QUESTION 39

The sum of three consecutive odd integers is 63. What is the smallest of these integers?

A) 1) 19

B) 2) 21

C) 3) 17

D) 4) 23

Correct Answer: A) 1) 19

Explanation: The correct answer is **A) 1) 19**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 40

Simplify: (2x - 5)(x + 3)

A) 1) $2x^2 + x - 15$

B) 2) $2x^2 - x - 15$

C) 3) $2x^2 + 11x - 15$

D) 4) $2x^2 - 11x - 15$

Correct Answer: A) 1) $2x^2 + x - 15$

Explanation: The correct answer is **A) 1) $2x^2 + x - 15$**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 1) $2x^2 + x - 15$.

QUESTION 41

A rectangle has a length of 12 cm and a width of 7 cm. What is its perimeter?

A) 1) 38 cm

B) 2) 84 cm

C) 3) 19 cm

D) 4) 42 cm

Correct Answer: A) 1) 38 cm

Explanation: The correct answer is **A) 1) 38 cm**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 1) 38 cm.

QUESTION 42

A circular garden has a diameter of 18 feet. What is the approximate area? (Use π ≈ 3.14)

A) 1) 254.34 sq ft

B) 2) 1017.36 sq ft

C) 3) 56.52 sq ft

D) 4) 113.04 sq ft

Correct Answer: A) 1) 254.34 sq ft

Explanation: The correct answer is **A) 1) 254.34 sq ft**. This geometry problem requires identifying the correct formula or theorem and substituting the given measurements. Applying the relevant geometric principle — area, angle relationships, or similarity — step-by-step leads to 1) 254.34 sq ft.

QUESTION 43

In a right triangle, if one leg measures 9 inches and the other leg measures 12 inches, what is the length of the hypotenuse?

A) 1) 21 inches

B) 2) 15 inches

C) 3) 18 inches

D) 4) 10.5 inches

Correct Answer: B) 2) 15 inches

Explanation: The correct answer is **B) 2) 15 inches**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 2) 15 inches.

QUESTION 44

A cube has a surface area of 150 square centimeters. What is the length of one edge?

A) 1) 5 cm

B) 2) 6 cm

C) 3) 7 cm

D) 4) 4 cm

Correct Answer: A) 1) 5 cm

Explanation: The correct answer is **A) 1) 5 cm**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 1) 5 cm.

QUESTION 45

Two angles are supplementary. If one angle measures 68°, what is the measure of the other angle?

A) 1) 22°

B) 2) 112°

C) 3) 292°

D) 4) 148°

Correct Answer: B) 2) 112°

Explanation: The correct answer is **B) 2) 112°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 2) 112°.

QUESTION 46

The test scores for six students are: 78, 85, 92, 88, 95, 82. What is the median score?

A) 1) 86.5

B) 2) 88

C) 3) 85

D) 4) 87

Correct Answer: A) 1) 86.5

Explanation: The correct answer is **A) 1) 86.5**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of 1) 86.5.

QUESTION 47

A bag contains 5 red marbles, 8 blue marbles, and 7 green marbles. What is the probability of randomly selecting a blue marble?

A) 1) 2/5

B) 2) 8/20

C) 3) 1/3

D) 4) 7/20

Correct Answer: B) 2) 8/20

Explanation: The correct answer is **B) 2) 8/20**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 2) 8/20.

QUESTION 48

The following data set shows daily temperatures: 72°, 68°, 75°, 72°, 70°, 72°. What is the mode?

A) 1) 71.5°

B) 2) 70°

C) 3) 72°

D) 4) 75°

Correct Answer: C) 3) 72°

Explanation: The correct answer is **C) 3) 72°**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives 3) 72°.

QUESTION 49

A survey of 200 people found that 35% prefer tea over coffee. How many people prefer tea?

A) 1) 65

B) 2) 70

C) 3) 80

D) 4) 60

Correct Answer: B) 2) 70

Explanation: The correct answer is **B) 2) 70**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 2) 70.

QUESTION 50

The mean of five numbers is 24. If four of the numbers are 18, 22, 26, and 30, what is the fifth number?

A) 1) 24

B) 2) 28

C) 3) 20

D) 4) 26

Correct Answer: A) 1) 24

Explanation: The correct answer is **A) 1) 24**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 1) 24.

QUESTION 51

"Many educators argue that technology in the classroom enhances learning by providing access to vast resources and enabling personalized instruction. Critics contend that excessive screen time diminishes critical thinking skills and face-to-face interaction. Write an essay in which you develop a position on the role of technology in education. Support your argument with specific examples and reasoning."

A) Develop a clear thesis stating your position on classroom technology use

B) Focus on: Clear thesis statement | Specific supporting examples | Acknowledgment of counterarguments | Logical organization | Proper grammar and mechanics

C)

D)

Correct Answer: A) Develop a clear thesis stating your position on classroom technology use

Explanation: The correct answer is **A) Develop a clear thesis stating your position on classroom technology use**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

FULL CRC EXAM

TSIA2 Simulated Exam 11 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

The deep ocean remains one of Earth's final frontiers, with over 80% of its depths unexplored and unmapped. Recent technological advances in submersible design and remote sensing have enabled scientists to discover extraordinary ecosystems thriving in complete darkness. Hydrothermal vents, fissures in the ocean floor that release superheated, mineral-rich water, support communities of organisms that derive energy not from sunlight but from chemosynthesis. Giant tube worms, eyeless shrimp, and bacteria capable of surviving extreme temperatures challenge our understanding of life's boundaries. These discoveries have profound implications for astrobiology, suggesting that life might exist in similarly extreme environments on other planets or moons. However, deep-sea mining operations now threaten these fragile ecosystems before we fully understand them, raising urgent questions about resource extraction versus conservation.

A) According to the passage, what makes hydrothermal vent ecosystems unique?

B) 1) They exist in completely mapped ocean regions

C) 2) Organisms there use chemosynthesis instead of photosynthesis

D) 3) They are easily accessible to researchers

Correct Answer: A) According to the passage, what makes hydrothermal vent ecosystems unique?

Explanation: The correct answer is **A) According to the passage, what makes hydrothermal vent ecosystems unique?**. Similar figures have proportional corresponding sides and equal corresponding angles. Setting up a proportion with the scale factor and solving for the unknown side yields According to the passage, what makes hydrothermal vent ecosystems unique?.

QUESTION 2

The deep ocean remains one of Earth's final frontiers, with over 80% of its depths unexplored and unmapped. Recent technological advances in submersible design and remote sensing have enabled scientists to discover extraordinary ecosystems thriving in complete darkness. Hydrothermal vents, fissures in the ocean floor that release superheated, mineral-rich water, support communities of organisms that derive energy not from sunlight but from chemosynthesis. Giant tube worms, eyeless shrimp, and bacteria capable of surviving extreme temperatures challenge our understanding of life's boundaries. These discoveries have profound implications for astrobiology, suggesting that life might exist in similarly extreme environments on other planets or moons. However, deep-sea mining operations now threaten these fragile ecosystems before we fully understand them, raising urgent questions about resource extraction versus conservation.

A) The author mentions astrobiology primarily to:

B) 1) Explain how deep-sea organisms evolved

C) 2) Criticize space exploration funding priorities

D) 3) Illustrate the broader significance of deep-sea discoveries

Correct Answer: A) The author mentions astrobiology primarily to:

Explanation: The correct answer is **A) The author mentions astrobiology primarily to:**. Similar figures have proportional corresponding sides and equal corresponding angles. Setting up a proportion with the scale factor and solving for the unknown side yields The author mentions astrobiology primarily to:.

QUESTION 3

The deep ocean remains one of Earth's final frontiers, with over 80% of its depths unexplored and unmapped. Recent technological advances in submersible design and remote sensing have enabled scientists to discover extraordinary ecosystems thriving in complete darkness. Hydrothermal vents, fissures in the ocean floor that release superheated, mineral-rich water, support communities of organisms that derive energy not from sunlight but from chemosynthesis. Giant tube worms, eyeless shrimp, and bacteria capable of surviving extreme temperatures challenge our understanding of life's boundaries. These discoveries have profound implications for astrobiology, suggesting that life might exist in similarly extreme environments on other planets or moons. However, deep-sea mining operations now threaten these fragile ecosystems before we fully understand them, raising urgent questions about resource extraction versus conservation.

A) What concern does the author express in the final sentence?

B) 1) Deep-sea mining may damage ecosystems before they are fully studied

C) 2) Technological limitations prevent further ocean exploration

D) 3) Astrobiology research receives insufficient funding

Correct Answer: A) What concern does the author express in the final sentence?

Explanation: The correct answer is **A) What concern does the author express in the final sentence?**. Similar figures have proportional corresponding sides and equal corresponding angles. Setting up a proportion with the scale factor and solving for the unknown side yields What concern does the author express in the final sentence?.

QUESTION 4

The deep ocean remains one of Earth's final frontiers, with over 80% of its depths unexplored and unmapped. Recent technological advances in submersible design and remote sensing have enabled scientists to discover extraordinary ecosystems thriving in complete darkness. Hydrothermal vents, fissures in the ocean floor that release superheated, mineral-rich water, support communities of organisms that derive energy not from sunlight but from chemosynthesis. Giant tube worms, eyeless shrimp, and bacteria capable of surviving extreme temperatures challenge our understanding of life's boundaries. These discoveries have profound implications for astrobiology, suggesting that life might exist in similarly extreme environments on other planets or moons. However, deep-sea mining operations now threaten these fragile ecosystems before we fully understand them, raising urgent questions about resource extraction versus conservation.

A) The passage suggests that deep ocean exploration has:

B) 1) Been completed in most major ocean regions

C) 2) Revealed that life requires sunlight to exist

D) 3) Expanded our understanding of where life can survive

Correct Answer: A) The passage suggests that deep ocean exploration has:

Explanation: The correct answer is **A) The passage suggests that deep ocean exploration has:**. Similar figures have proportional corresponding sides and equal corresponding angles. Setting up a proportion with the scale factor and solving for the unknown side yields The passage suggests that deep ocean exploration has:.

QUESTION 5

Linguistic diversity faces an extinction crisis as languages disappear at an alarming rate—experts estimate that one language dies every two weeks. When a language vanishes, it takes with it unique cultural knowledge, oral histories, and ways of understanding the world. Indigenous languages often contain irreplaceable ecological wisdom, including detailed botanical classifications and sustainable resource management practices developed over centuries. Language revitalization efforts employ various strategies: immersion schools where children learn ancestral languages, digital archives preserving recordings and texts, and community-led documentation projects. Technology plays a dual role—while digital media can accelerate language loss through cultural homogenization, it also provides powerful tools for preservation through apps, online courses, and social media platforms. Success stories like Hawaiian and Māori demonstrate that languages can be revived even from the brink of extinction when communities commit to intergenerational transmission.

A) What is the main argument presented in the passage?

B) 1) All languages should be replaced with a single global language

C) 2) Language loss eliminates unique cultural and practical knowledge

D) 3) Technology is solely responsible for language extinction

Correct Answer: A) What is the main argument presented in the passage?

Explanation: The correct answer is **A) What is the main argument presented in the passage?**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives What is the main argument presented in the passage?.

QUESTION 6

Linguistic diversity faces an extinction crisis as languages disappear at an alarming rate—experts estimate that one language dies every two weeks. When a language vanishes, it takes with it unique cultural knowledge, oral histories, and ways of understanding the world. Indigenous languages often contain irreplaceable ecological wisdom, including detailed botanical classifications and sustainable resource management practices developed over centuries. Language revitalization efforts employ various strategies: immersion schools where children learn ancestral languages, digital archives preserving recordings and texts, and community-led documentation projects. Technology plays a dual role—while digital media can accelerate language loss through cultural homogenization, it also provides powerful tools for preservation through apps, online courses, and social media platforms. Success stories like Hawaiian and Māori demonstrate that languages can be revived even from the brink of extinction when communities commit to intergenerational transmission.

A) According to the passage, indigenous languages often contain:

B) 1) Only simple grammatical structures

C) 2) Ecological knowledge developed over generations

D) 3) Identical vocabulary to modern languages

Correct Answer: A) According to the passage, indigenous languages often contain:

Explanation: The correct answer is **A) According to the passage, indigenous languages often contain:**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives According to the passage, indigenous languages often contain:.

QUESTION 7

Linguistic diversity faces an extinction crisis as languages disappear at an alarming rate—experts estimate that one language dies every two weeks. When a language vanishes, it takes with it unique cultural knowledge, oral histories, and ways of understanding the world. Indigenous languages often contain irreplaceable ecological wisdom, including detailed botanical classifications and sustainable resource management practices developed over centuries. Language revitalization efforts employ various strategies: immersion schools where children learn ancestral languages, digital archives preserving recordings and texts, and community-led documentation projects. Technology plays a dual role—while digital media can accelerate language loss through cultural homogenization, it also provides powerful tools for preservation through apps, online courses, and social media platforms. Success stories like Hawaiian and Māori demonstrate that languages can be revived even from the brink of extinction when communities commit to intergenerational transmission.

A) The author's perspective on technology's role in language preservation is:

B) 1) Entirely negative and harmful

C) 2) Completely positive and beneficial

D) 3) Complex, with both risks and opportunities

Correct Answer: A) The author's perspective on technology's role in language preservation is:

Explanation: The correct answer is **A) The author's perspective on technology's role in language preservation is:**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives The author's perspective on technology's role in language preservation is:.

QUESTION 8

Linguistic diversity faces an extinction crisis as languages disappear at an alarming rate—experts estimate that one language dies every two weeks. When a language vanishes, it takes with it unique cultural knowledge, oral histories, and ways of understanding the world. Indigenous languages often contain irreplaceable ecological wisdom, including detailed botanical classifications and sustainable resource management practices developed over centuries. Language revitalization efforts employ various strategies: immersion schools where children learn ancestral languages, digital archives preserving recordings and texts, and community-led documentation projects. Technology plays a dual role—while digital media can accelerate language loss through cultural homogenization, it also provides powerful tools for preservation through apps, online courses, and social media platforms. Success stories like Hawaiian and Māori demonstrate that languages can be revived even from the brink of extinction when communities commit to intergenerational transmission.

A) The examples of Hawaiian and Māori languages demonstrate that:

B) 1) Language extinction is inevitable

C) 2) Only large languages can be preserved

D) 3) Severely endangered languages can be revitalized

Correct Answer: A) The examples of Hawaiian and Māori languages demonstrate that:

Explanation: The correct answer is **A) The examples of Hawaiian and Māori languages demonstrate that:**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives The examples of Hawaiian and Māori languages demonstrate that:.

QUESTION 9

Biomimicry—the practice of learning from and mimicking natural systems to solve human challenges—is revolutionizing engineering and design. Nature has conducted 3.8 billion years of research and development, optimizing solutions through evolution. The Japanese Shinkansen bullet train's nose was redesigned based on the kingfisher bird's beak, reducing noise and increasing energy efficiency. Velcro emerged from studying burrs that clung to dog fur. More recently, scientists developed self-cleaning surfaces inspired by lotus leaves, whose microscopic structures repel water and dirt. In architecture, termite mounds have inspired passive cooling systems that maintain constant temperatures without air conditioning. The potential extends to medicine: studying how geckos adhere to surfaces has led to surgical adhesives that work in wet conditions. As we face climate change and resource scarcity, biomimicry offers sustainable alternatives to conventional approaches by working with nature rather than against it.

A) The primary purpose of this passage is to:

B) 1) Argue that biomimicry is superior to all other design methods

C) 2) Explain biomimicry and provide examples of its applications

D) 3) Criticize conventional engineering approaches

Correct Answer: A) The primary purpose of this passage is to:

Explanation: The correct answer is **A) The primary purpose of this passage is to:**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to The primary purpose of this passage is to:.

QUESTION 10

Biomimicry—the practice of learning from and mimicking natural systems to solve human challenges—is revolutionizing engineering and design. Nature has conducted 3.8 billion years of research and development, optimizing solutions through evolution. The Japanese Shinkansen bullet train's nose was redesigned based on the kingfisher bird's beak, reducing noise and increasing energy efficiency. Velcro emerged from studying burrs that clung to dog fur. More recently, scientists developed self-cleaning surfaces inspired by lotus leaves, whose microscopic structures repel water and dirt. In architecture, termite mounds have inspired passive cooling systems that maintain constant temperatures without air conditioning. The potential extends to medicine: studying how geckos adhere to surfaces has led to surgical adhesives that work in wet conditions. As we face climate change and resource scarcity, biomimicry offers sustainable alternatives to conventional approaches by working with nature rather than against it.

A) What does the author mean by stating nature has conducted '3.8 billion years of research and development'?

B) 1) Scientists have been studying nature for billions of years

C) 2) Evolution has optimized natural solutions over vast time

D) 3) Nature intentionally designs solutions for human use

Correct Answer: A) What does the author mean by stating nature has conducted '3.8 billion years of research and development'?

Explanation: The correct answer is **A) What does the author mean by stating nature has conducted '3.8 billion years of research and development'?**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to What does the author mean by stating nature has conducted '3.8 billion years of research and development'?.

QUESTION 11

Biomimicry—the practice of learning from and mimicking natural systems to solve human challenges—is revolutionizing engineering and design. Nature has conducted 3.8 billion years of research and development, optimizing solutions through evolution. The Japanese Shinkansen bullet train's nose was redesigned based on the kingfisher bird's beak, reducing noise and increasing energy efficiency. Velcro emerged from studying burrs that clung to dog fur. More recently, scientists developed self-cleaning surfaces inspired by lotus leaves, whose microscopic structures repel water and dirt. In architecture, termite mounds have inspired passive cooling systems that maintain constant temperatures without air conditioning. The potential extends to medicine: studying how geckos adhere to surfaces has led to surgical adhesives that work in wet conditions. As we face climate change and resource scarcity, biomimicry offers sustainable alternatives to conventional approaches by working with nature rather than against it.

A) Which innovation is NOT mentioned in the passage?

B) 1) Train nose design based on bird beaks

C) 2) Fastening system inspired by plant burrs

D) 3) Solar panels modeled after leaves

Correct Answer: A) Which innovation is NOT mentioned in the passage?

Explanation: The correct answer is **A) Which innovation is NOT mentioned in the passage?**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to Which innovation is NOT mentioned in the passage?.

QUESTION 12

Biomimicry—the practice of learning from and mimicking natural systems to solve human challenges—is revolutionizing engineering and design. Nature has conducted 3.8 billion years of research and development, optimizing solutions through evolution. The Japanese Shinkansen bullet train's nose was redesigned based on the kingfisher bird's beak, reducing noise and increasing energy efficiency. Velcro emerged from studying burrs that clung to dog fur. More recently, scientists developed self-cleaning surfaces inspired by lotus leaves, whose microscopic structures repel water and dirt. In architecture, termite mounds have inspired passive cooling systems that maintain constant temperatures without air conditioning. The potential extends to medicine: studying how geckos adhere to surfaces has led to surgical adhesives that work in wet conditions. As we face climate change and resource scarcity, biomimicry offers sustainable alternatives to conventional approaches by working with nature rather than against it.

A) The passage suggests that biomimicry is particularly relevant now because:

B) 1) Nature has stopped evolving new solutions

C) 2) It offers sustainable approaches to environmental challenges

D) 3) Conventional methods have never been effective

Correct Answer: A) The passage suggests that biomimicry is particularly relevant now because:

Explanation: The correct answer is **A) The passage suggests that biomimicry is particularly relevant now because:**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to The passage suggests that biomimicry is particularly relevant now because:.

QUESTION 13

Neuroscience research reveals that music engages the brain more comprehensively than almost any other human activity. When we listen to music, multiple brain regions activate simultaneously: the auditory cortex processes sound, the motor cortex responds to rhythm, the limbic system generates emotional responses, and the prefrontal cortex analyzes patterns and anticipates progressions. Learning to play an instrument further enhances brain function, strengthening connections between hemispheres and improving executive functions like planning and attention. Studies show that musicians often exhibit enhanced memory, language skills, and spatial reasoning compared to non-musicians. Music therapy has demonstrated effectiveness in treating conditions from Parkinson's disease to depression, using rhythm to bypass damaged neural pathways or using familiar songs to access locked memories in dementia patients. These findings challenge the traditional hierarchy that relegates arts to 'optional' status in education, suggesting that music instruction may be fundamental to cognitive development.

A) According to the passage, what distinguishes music's effect on the brain?

B) 1) It activates only the auditory cortex

C) 2) It engages multiple brain regions simultaneously

D) 3) It has no measurable neurological impact

Correct Answer: A) According to the passage, what distinguishes music's effect on the brain?

Explanation: The correct answer is **A) According to the passage, what distinguishes music's effect on the brain?**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives According to the passage, what distinguishes music's effect on the brain?.

QUESTION 14

Neuroscience research reveals that music engages the brain more comprehensively than almost any other human activity. When we listen to music, multiple brain regions activate simultaneously: the auditory cortex processes sound, the motor cortex responds to rhythm, the limbic system generates emotional responses, and the prefrontal cortex analyzes patterns and anticipates progressions. Learning to play an instrument further enhances brain function, strengthening connections between hemispheres and improving executive functions like planning and attention. Studies show that musicians often exhibit enhanced memory, language skills, and spatial reasoning compared to non-musicians. Music therapy has demonstrated effectiveness in treating conditions from Parkinson's disease to depression, using rhythm to bypass damaged neural pathways or using familiar songs to access locked memories in dementia patients. These findings challenge the traditional hierarchy that relegates arts to 'optional' status in education, suggesting that music instruction may be fundamental to cognitive development.

A) The passage indicates that learning to play an instrument:

B) 1) Has no effect beyond basic motor skills

C) 2) Decreases brain connectivity over time

D) 3) Improves various cognitive abilities

Correct Answer: A) The passage indicates that learning to play an instrument:

Explanation: The correct answer is **A) The passage indicates that learning to play an instrument:**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives The passage indicates that learning to play an instrument:.

QUESTION 15

Neuroscience research reveals that music engages the brain more comprehensively than almost any other human activity. When we listen to music, multiple brain regions activate simultaneously: the auditory cortex processes sound, the motor cortex responds to rhythm, the limbic system generates emotional responses, and the prefrontal cortex analyzes patterns and anticipates progressions. Learning to play an instrument further enhances brain function, strengthening connections between hemispheres and improving executive functions like planning and attention. Studies show that musicians often exhibit enhanced memory, language skills, and spatial reasoning compared to non-musicians. Music therapy has demonstrated effectiveness in treating conditions from Parkinson's disease to depression, using rhythm to bypass damaged neural pathways or using familiar songs to access locked memories in dementia patients. These findings challenge the traditional hierarchy that relegates arts to 'optional' status in education, suggesting that music instruction may be fundamental to cognitive development.

A) What does the author suggest about music's role in education?

B) 1) Music should remain an optional subject

C) 2) Music instruction may be essential for cognitive development

D) 3) Music has no place in academic settings

Correct Answer: A) What does the author suggest about music's role in education?

Explanation: The correct answer is **A) What does the author suggest about music's role in education?**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives What does the author suggest about music's role in education?.

QUESTION 16

Neuroscience research reveals that music engages the brain more comprehensively than almost any other human activity. When we listen to music, multiple brain regions activate simultaneously: the auditory cortex processes sound, the motor cortex responds to rhythm, the limbic system generates emotional responses, and the prefrontal cortex analyzes patterns and anticipates progressions. Learning to play an instrument further enhances brain function, strengthening connections between hemispheres and improving executive functions like planning and attention. Studies show that musicians often exhibit enhanced memory, language skills, and spatial reasoning compared to non-musicians. Music therapy has demonstrated effectiveness in treating conditions from Parkinson's disease to depression, using rhythm to bypass damaged neural pathways or using familiar songs to access locked memories in dementia patients. These findings challenge the traditional hierarchy that relegates arts to 'optional' status in education, suggesting that music instruction may be fundamental to cognitive development.

A) Music therapy's effectiveness with dementia patients demonstrates:

B) 1) Music can help access memories when other methods fail

C) 2) Dementia can be completely cured through music

D) 3) Only classical music has therapeutic benefits

Correct Answer: A) Music therapy's effectiveness with dementia patients demonstrates:

Explanation: The correct answer is **A) Music therapy's effectiveness with dementia patients demonstrates:**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives Music therapy's effectiveness with dementia patients demonstrates:.

QUESTION 17

The athletes trained rigorously, maintained strict diets, and were getting adequate rest before the championship.

A) Which revision corrects the parallel structure error?

B) 1) The athletes trained rigorously, maintained strict diets, and got adequate rest before the championship.

C) 2) The athletes were training rigorously, maintaining strict diets, and got adequate rest before the championship.

D) 3) The athletes train rigorously, maintain strict diets, and were getting adequate rest before the championship.

Correct Answer: A) Which revision corrects the parallel structure error?

Explanation: The correct answer is **A) Which revision corrects the parallel structure error?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 18

The data suggests that consumer preferences have shifted significantly over the past decade.

A) Which analysis of this sentence is correct?

B) 1) 'Data' should be treated as plural, so 'suggest' is correct

C) 2) The sentence is correct as written

D) 3) 'Have shifted' should be 'has shifted'

Correct Answer: A) Which analysis of this sentence is correct?

Explanation: The correct answer is **A) Which analysis of this sentence is correct?**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to Which analysis of this sentence is correct?.

QUESTION 19

The scientists conducted extensive experiments, they documented their findings in a comprehensive report.

A) Which revision best corrects the comma splice?

B) 1) The scientists conducted extensive experiments; they documented their findings in a comprehensive report.

C) 2) The scientists conducted extensive experiments they documented their findings in a comprehensive report.

D) 3) The scientists conducted extensive experiments, and they documented their findings in a comprehensive report.

Correct Answer: D) 3) The scientists conducted extensive experiments, and they documented their findings in a comprehensive report.

Explanation: The correct answer is **D) 3) The scientists conducted extensive experiments, and they documented their findings in a comprehensive report.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 20

Whom should I contact regarding the scholarship application?

A) Is this sentence correct?

B) 1) Yes, 'whom' is correct as the object of the verb 'contact'

C) 2) No, it should be 'who' as the subject

D) 3) No, 'regarding' should be 'about'

Correct Answer: A) Is this sentence correct?

Explanation: The correct answer is **A) Is this sentence correct?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 21

The renovation project encountered several obstacles; nevertheless, the team completed it ahead of schedule.

A) What is the function of 'nevertheless' in this sentence?

B) 1) To show cause and effect

C) 2) To add supporting information

D) 3) To show contrast or opposition

Correct Answer: A) What is the function of 'nevertheless' in this sentence?

Explanation: The correct answer is **A) What is the function of 'nevertheless' in this sentence?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 22

Everyone must submit their proposal by Friday at 5:00 PM.

A) Which revision addresses the pronoun agreement issue most formally?

B) 1) Everyone must submit his or her proposal by Friday at 5:00 PM.

C) 2) Everyone must submit your proposal by Friday at 5:00 PM.

D) 3) Everyone must submit our proposal by Friday at 5:00 PM.

Correct Answer: A) Which revision addresses the pronoun agreement issue most formally?

Explanation: The correct answer is **A) Which revision addresses the pronoun agreement issue most formally?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 23

The historical novel, which took the author seven years to complete, received critical acclaim upon publication.

A) Which element is the main clause of this sentence?

B) 1) The historical novel

C) 2) which took the author seven years to complete

D) 3) The historical novel received critical acclaim upon publication

Correct Answer: A) Which element is the main clause of this sentence?

Explanation: The correct answer is **A) Which element is the main clause of this sentence?**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Which element is the main clause of this sentence?' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 24

Walking through the forest, the towering redwoods created a sense of awe.

A) Which revision corrects the dangling modifier?

B) 1) Walking through the forest, a sense of awe was created by the towering redwoods.

C) 2) The towering redwoods, walking through the forest, created a sense of awe.

D) 3) Walking through the forest, we felt a sense of awe created by the towering redwoods.

Correct Answer: C) 2) The towering redwoods, walking through the forest, created a sense of awe.

Explanation: The correct answer is **C) 2) The towering redwoods, walking through the forest, created a sense of awe.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 25

The legislation will effect significant changes in environmental policy.

A) Is this sentence correct?

B) 1) Yes, 'effect' as a verb means 'to bring about'

C) 2) No, it should be 'affect'

D) 3) No, 'legislation' should be plural

Correct Answer: A) Is this sentence correct?

Explanation: The correct answer is **A) Is this sentence correct?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 26

Although the experiment failed to produce the expected results, the researchers gained valuable insights into the underlying mechanisms.

A) This sentence is effective because it:

B) 1) Uses only simple vocabulary

C) 2) Shows that failure can yield beneficial outcomes

D) 3) Avoids taking a clear position

Correct Answer: A) This sentence is effective because it:

Explanation: The correct answer is **A) This sentence is effective because it:**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 27

The conference attracted participants from diverse backgrounds: academics, industry professionals, policymakers, and students.

A) The colon in this sentence is used to:

B) 1) Introduce a list that explains 'diverse backgrounds'

C) 2) Separate two independent clauses

D) 3) Indicate a quote

Correct Answer: A) The colon in this sentence is used to:

Explanation: The correct answer is **A) The colon in this sentence is used to:**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 28

Its important to recognize that the committee's decision reflects it's commitment to transparency.

A) Which corrections are needed?

B) 1) Change 'Its' to 'It's' and 'it's' to 'its'

C) 2) Both uses are correct

D) 3) Change 'Its' to 'It's' only

Correct Answer: A) Which corrections are needed?

Explanation: The correct answer is **A) Which corrections are needed?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 29

The artist's work is characterized by bold colors, dynamic compositions, and experimenting with mixed media.

A) Which revision corrects the error?

B) 1) The artist's work is characterized by bold colors, dynamic compositions, and experimental mixed media.

C) 2) The artist's work is characterized by bold colors, dynamic compositions, and experiments with mixed media.

D) 3) The artist's work is characterized by using bold colors, creating dynamic compositions, and experimenting with mixed media.

Correct Answer: B) 1) The artist's work is characterized by bold colors, dynamic compositions, and experimental mixed media.

Explanation: The correct answer is **B) 1) The artist's work is characterized by bold colors, dynamic compositions, and experimental mixed media.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 30

The mayor, along with several council members, were present at the ceremony.

A) Which correction is needed?

B) 1) Change 'were' to 'was'

C) 2) Change 'council members' to 'council member'

D) 3) Remove the commas around 'along with several council members'

Correct Answer: A) Which correction is needed?

Explanation: The correct answer is **A) Which correction is needed?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 31

A bookstore offers a 15% discount on all purchases over $50. If a customer buys books totaling $68, what is the final price after the discount?

A) 1) $57.80

B) 2) $53.00

C) 3) $58.80

D) 4) $60.20

Correct Answer: A) 1) $57.80

Explanation: The correct answer is **A) 1) $57.80**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 32

A rectangular garden measures 24 feet by 18 feet. If fencing costs $8.50 per foot, what is the total cost to fence the entire perimeter?

A) 1) $714.00

B) 2) $357.00

C) 3) $3,672.00

D) 4) $204.00

Correct Answer: A) 1) $714.00

Explanation: The correct answer is **A) 1) $714.00**. This geometry problem requires identifying the correct formula or theorem and substituting the given measurements. Applying the relevant geometric principle — area, angle relationships, or similarity — step-by-step leads to 1) $714.00.

QUESTION 33

If 3/5 of a class of 35 students are girls, how many boys are in the class?

A) 1) 21

B) 2) 14

C) 3) 18

D) 4) 17

Correct Answer: B) 2) 14

Explanation: The correct answer is **B) 2) 14**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 34

A train travels 420 miles in 5.5 hours. What is its average speed in miles per hour?

A) 1) 76.36 mph

B) 2) 78 mph

C) 3) 80 mph

D) 4) 75 mph

Correct Answer: A) 1) 76.36 mph

Explanation: The correct answer is **A) 1) 76.36 mph**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 1) 76.36 mph.

QUESTION 35

A shirt is marked up 40% from its wholesale cost of $25. What is the retail price?

A) 1) $35.00

B) 2) $30.00

C) 3) $32.50

D) 4) $40.00

Correct Answer: A) 1) $35.00

Explanation: The correct answer is **A) 1) $35.00**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 36

Solve for x: 5(x + 3) - 2x = 27

A) 1) x = 4

B) 2) x = 6

C) 3) x = 3

D) 4) x = 5

Correct Answer: A) 1) x = 4

Explanation: The correct answer is **A) 1) x = 4**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 1) x = 4.

QUESTION 37

If $g(x) = -3x^2 + 4x - 2$, what is g(3)?

A) 1) -17

B) 2) -23

C) 3) -11

D) 4) -29

Correct Answer: B) 2) -23

Explanation: The correct answer is **B) 2) -23**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 2) -23.

QUESTION 38

Simplify: $(4a^3b^2)(-2a^2b^4)$

A) 1) $-8a^5b^6$

B) 2) $-8a^6b^8$

C) 3) $8a^5b^6$

D) 4) $-6a^5b^6$

Correct Answer: A) 1) $-8a^5b^6$

Explanation: The correct answer is **A) 1) $-8a^5b^6$**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 1) $-8a^5b^6$.

QUESTION 39

The product of two consecutive even integers is 168. What are the integers?

A) 1) 12 and 14

B) 2) 10 and 12

C) 3) 14 and 16

D) 4) 8 and 10

Correct Answer: A) 1) 12 and 14

Explanation: The correct answer is **A) 1) 12 and 14**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 40

Which is equivalent to: 3(2x - 4) + 5x?

A) 1) 11x - 12

B) 2) 11x - 4

C) 3) 6x - 12

D) 4) 16x - 12

Correct Answer: A) 1) 11x - 12

Explanation: The correct answer is **A) 1) 11x - 12**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 41

A triangle has sides of length 15 cm, 20 cm, and 25 cm. What type of triangle is it?

A) 1) Acute

B) 2) Right

C) 3) Obtuse

D) 4) Equilateral

Correct Answer: B) 2) Right

Explanation: The correct answer is **B) 2) Right**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 2) Right.

QUESTION 42

What is the volume of a rectangular prism with length 8 m, width 5 m, and height 4 m?

A) 1) 160 cubic meters

B) 2) 17 cubic meters

C) 3) 80 cubic meters

D) 4) 120 cubic meters

Correct Answer: A) 1) 160 cubic meters

Explanation: The correct answer is **A) 1) 160 cubic meters**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 1) 160 cubic meters.

QUESTION 43

A circle has a circumference of 62.8 inches. What is its radius? (Use $\pi \approx 3.14$)

A) 1) 20 inches

B) 2) 10 inches

C) 3) 5 inches

D) 4) 15 inches

Correct Answer: B) 2) 10 inches

Explanation: The correct answer is **B) 2) 10 inches**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 2) 10 inches.

QUESTION 44

If two parallel lines are cut by a transversal and one angle measures 115°, what is the measure of the corresponding angle?

A) 1) 65°

B) 2) 115°

C) 3) 75°

D) 4) 90°

Correct Answer: B) 2) 115°

Explanation: The correct answer is **B) 2) 115°**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option B maintains consistent grammatical form across all listed or compared elements.

QUESTION 45

The area of a trapezoid is 96 square feet. If the height is 8 feet and one base is 10 feet, what is the length of the other base?

A) 1) 14 feet

B) 2) 12 feet

C) 3) 16 feet

D) 4) 18 feet

Correct Answer: A) 1) 14 feet

Explanation: The correct answer is **A) 1) 14 feet**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 1) 14 feet.

QUESTION 46

The ages of seven people are: 23, 28, 31, 28, 35, 28, 40. What is the mode?

A) 1) 28

B) 2) 30.43

C) 3) 31

D) 4) 35

Correct Answer: A) 1) 28

Explanation: The correct answer is **A) 1) 28**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives 1) 28.

QUESTION 47

A spinner has 12 equal sections: 5 red, 4 blue, and 3 green. What is the probability of spinning blue?

A) 1) 1/3

B) 2) 1/4

C) 3) 5/12

D) 4) 1/2

Correct Answer: A) 1) 1/3

Explanation: The correct answer is **A) 1) 1/3**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1) 1/3.

QUESTION 48

The mean of four numbers is 18. If three of the numbers are 15, 20, and 22, what is the fourth number?

A) 1) 15

B) 2) 14

C) 3) 16

D) 4) 18

Correct Answer: A) 1) 15

Explanation: The correct answer is **A) 1) 15**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 1) 15.

QUESTION 49

A survey shows that 60% of 250 students walk to school. How many students walk to school?

A) 1) 100

B) 2) 150

C) 3) 175

D) 4) 125

Correct Answer: B) 2) 150

Explanation: The correct answer is **B) 2) 150**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 2) 150.

QUESTION 50

The following data set shows test scores: 82, 88, 75, 92, 88, 95. What is the range?

A) 1) 20

B) 2) 13

C) 3) 88

D) 4) 17

Correct Answer: A) 1) 20

Explanation: The correct answer is **A) 1) 20**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 1) 20.

QUESTION 51

"Social media platforms have transformed how people communicate, share information, and form communities. Supporters argue that social media democratizes communication and enables global connections. Opponents claim it spreads misinformation and damages mental health. Write an essay in which you develop a position on the overall impact of social media on society. Support your argument with relevant examples and reasoning."

A) Develop a clear thesis about social media's impact on society

B) Focus on: Clear argumentative thesis | Specific, relevant examples | Analysis of multiple perspectives | Coherent organization | Strong grammar and style

C)

D)

Correct Answer: A) Develop a clear thesis about social media's impact on society

Explanation: The correct answer is **A) Develop a clear thesis about social media's impact on society**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

FULL CRC EXAM

TSIA2 Simulated Exam 12 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

Regenerative agriculture represents a paradigm shift from conventional farming practices that deplete soil health to methods that actively restore ecosystem vitality. Unlike industrial agriculture, which relies heavily on synthetic fertilizers and pesticides, regenerative approaches emphasize soil biology, biodiversity, and carbon sequestration. Key practices include no-till farming, which preserves soil structure and microbial communities; cover cropping, which prevents erosion and adds organic matter; and rotational grazing, which mimics natural herbivore movement patterns. Research demonstrates that regenerative farms can sequester significant amounts of atmospheric carbon in soil, potentially mitigating climate change while simultaneously improving crop yields and resilience. Economic benefits extend beyond production: healthier soil requires fewer chemical inputs, reducing costs and environmental contamination. Critics question whether regenerative methods can achieve the scale necessary to feed a growing global population, but proponents argue that industrial agriculture's long-term soil degradation makes current practices unsustainable regardless of short-term productivity gains.

A) What distinguishes regenerative agriculture from conventional farming according to the passage?

B) 1) It produces higher yields in all situations

C) 2) It focuses on restoring rather than depleting soil health

D) 3) It requires more synthetic chemical inputs

Correct Answer: A) What distinguishes regenerative agriculture from conventional farming according to the passage?

Explanation: The correct answer is **A) What distinguishes regenerative agriculture from conventional farming according to the passage?**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives What distinguishes regenerative agriculture from conventional farming according to the passage?.

QUESTION 2

Regenerative agriculture represents a paradigm shift from conventional farming practices that deplete soil health to methods that actively restore ecosystem vitality. Unlike industrial agriculture, which relies heavily on synthetic fertilizers and pesticides, regenerative approaches emphasize soil biology, biodiversity, and carbon sequestration. Key practices include no-till farming, which preserves soil structure and microbial communities; cover cropping, which prevents erosion and adds organic matter; and rotational grazing, which mimics natural herbivore movement patterns. Research demonstrates that regenerative farms can sequester significant amounts of atmospheric carbon in soil, potentially mitigating climate change while simultaneously improving crop yields and resilience. Economic benefits extend beyond production: healthier soil requires fewer chemical inputs, reducing costs and environmental contamination. Critics question whether regenerative methods can achieve the scale necessary to feed a growing global population, but proponents argue that industrial agriculture's long-term soil degradation makes current practices unsustainable regardless of short-term productivity gains.

A) The passage indicates that regenerative agriculture may help address climate change by:

B) 1) Eliminating all agricultural carbon emissions

C) 2) Reducing the number of farms globally

D) 3) Storing atmospheric carbon in soil

Correct Answer: A) The passage indicates that regenerative agriculture may help address climate change by:

Explanation: The correct answer is **A) The passage indicates that regenerative agriculture may help address climate change by:**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives The passage indicates that regenerative agriculture may help address climate change by:.

QUESTION 3

Regenerative agriculture represents a paradigm shift from conventional farming practices that deplete soil health to methods that actively restore ecosystem vitality. Unlike industrial agriculture, which relies heavily on synthetic fertilizers and pesticides, regenerative approaches emphasize soil biology, biodiversity, and carbon sequestration. Key practices include no-till farming, which preserves soil structure and microbial communities; cover cropping, which prevents erosion and adds organic matter; and rotational grazing, which mimics natural herbivore movement patterns. Research demonstrates that regenerative farms can sequester significant amounts of atmospheric carbon in soil, potentially mitigating climate change while simultaneously improving crop yields and resilience. Economic benefits extend beyond production: healthier soil requires fewer chemical inputs, reducing costs and environmental contamination. Critics question whether regenerative methods can achieve the scale necessary to feed a growing global population, but proponents argue that industrial agriculture's long-term soil degradation makes current practices unsustainable regardless of short-term productivity gains.

A) How does the author address criticism of regenerative agriculture?

B) 1) By dismissing critics as uninformed

C) 2) By acknowledging concerns while questioning conventional agriculture's sustainability

D) 3) By providing definitive proof that criticism is wrong

Correct Answer: A) How does the author address criticism of regenerative agriculture?

Explanation: The correct answer is **A) How does the author address criticism of regenerative agriculture?**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives How does the author address criticism of regenerative agriculture?.

QUESTION 4

Regenerative agriculture represents a paradigm shift from conventional farming practices that deplete soil health to methods that actively restore ecosystem vitality. Unlike industrial agriculture, which relies heavily on synthetic fertilizers and pesticides, regenerative approaches emphasize soil biology, biodiversity, and carbon sequestration. Key practices include no-till farming, which preserves soil structure and microbial communities; cover cropping, which prevents erosion and adds organic matter; and rotational grazing, which mimics natural herbivore movement patterns. Research demonstrates that regenerative farms can sequester significant amounts of atmospheric carbon in soil, potentially mitigating climate change while simultaneously improving crop yields and resilience. Economic benefits extend beyond production: healthier soil requires fewer chemical inputs, reducing costs and environmental contamination. Critics question whether regenerative methods can achieve the scale necessary to feed a growing global population, but proponents argue that industrial agriculture's long-term soil degradation makes current practices unsustainable regardless of short-term productivity gains.

A) According to the passage, no-till farming benefits soil by:

B) 1) Increasing chemical fertilizer effectiveness

C) 2) Preserving soil structure and microbial life

D) 3) Eliminating all weeds permanently

Correct Answer: A) According to the passage, no-till farming benefits soil by:

Explanation: The correct answer is **A) According to the passage, no-till farming benefits soil by:**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives According to the passage, no-till farming benefits soil by:.

QUESTION 5

The neurodiversity movement challenges traditional medical models that classify conditions like autism, ADHD, and dyslexia as disorders requiring treatment. Instead, neurodiversity advocates frame these neurological differences as natural human variation, comparable to biodiversity in ecosystems. This perspective doesn't deny that neurodivergent individuals may face genuine challenges, particularly in environments designed for neurotypical people, but it shifts focus from 'fixing' individuals to creating inclusive systems that accommodate different cognitive styles. In workplace contexts, neurodivergent employees often bring valuable strengths: enhanced pattern recognition, creative problem-solving approaches, hyperfocus capabilities, or exceptional attention to detail. Progressive companies are implementing neurodiversity hiring initiatives, recognizing that cognitive diversity enhances innovation and organizational performance. However, the movement faces criticism from some within neurodivergent communities who feel their need for support and accommodation is minimized, highlighting tensions between celebrating difference and acknowledging disability.

A) The primary argument of the neurodiversity movement is that neurological differences should be:

B) 1) Eliminated through medical intervention

C) 2) Viewed as natural human variation rather than disorders

D) 3) Hidden in professional environments

Correct Answer: A) The primary argument of the neurodiversity movement is that neurological differences should be:

Explanation: The correct answer is **A) The primary argument of the neurodiversity movement is that neurological differences should be:**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives The primary argument of the neurodiversity movement is that neurological differences should be:.

QUESTION 6

The neurodiversity movement challenges traditional medical models that classify conditions like autism, ADHD, and dyslexia as disorders requiring treatment. Instead, neurodiversity advocates frame these neurological differences as natural human variation, comparable to biodiversity in ecosystems. This perspective doesn't deny that neurodivergent individuals may face genuine challenges, particularly in environments designed for neurotypical people, but it shifts focus from 'fixing' individuals to creating inclusive systems that accommodate different cognitive styles. In workplace contexts, neurodivergent employees often bring valuable strengths: enhanced pattern recognition, creative problem-solving approaches, hyperfocus capabilities, or exceptional attention to detail. Progressive companies are implementing neurodiversity hiring initiatives, recognizing that cognitive diversity enhances innovation and organizational performance. However, the movement faces criticism from some within neurodivergent communities who feel their need for support and accommodation is minimized, highlighting tensions between celebrating difference and acknowledging disability.

A) According to the passage, neurodiversity initiatives in workplaces are based on the idea that:

B) 1) All neurodivergent people have identical skills

C) 2) Cognitive diversity can enhance organizational performance

D) 3) Neurotypical employees are less valuable

Correct Answer: A) According to the passage, neurodiversity initiatives in workplaces are based on the idea that:

Explanation: The correct answer is **A) According to the passage, neurodiversity initiatives in workplaces are based on the idea that:**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives According to the passage, neurodiversity initiatives in workplaces are based on the idea that:.

QUESTION 7

The neurodiversity movement challenges traditional medical models that classify conditions like autism, ADHD, and dyslexia as disorders requiring treatment. Instead, neurodiversity advocates frame these neurological differences as natural human variation, comparable to biodiversity in ecosystems. This perspective doesn't deny that neurodivergent individuals may face genuine challenges, particularly in environments designed for neurotypical people, but it shifts focus from 'fixing' individuals to creating inclusive systems that accommodate different cognitive styles. In workplace contexts, neurodivergent employees often bring valuable strengths: enhanced pattern recognition, creative problem-solving approaches, hyperfocus capabilities, or exceptional attention to detail. Progressive companies are implementing neurodiversity hiring initiatives, recognizing that cognitive diversity enhances innovation and organizational performance. However, the movement faces criticism from some within neurodivergent communities who feel their need for support and accommodation is minimized, highlighting tensions between celebrating difference and acknowledging disability.

A) What internal criticism of the neurodiversity movement does the passage mention?

B) 1) It attracts too much corporate attention

C) 2) It may minimize genuine needs for support and accommodation

D) 3) It focuses too heavily on workplace issues

Correct Answer: A) What internal criticism of the neurodiversity movement does the passage mention?

Explanation: The correct answer is **A) What internal criticism of the neurodiversity movement does the passage mention?**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives What internal criticism of the neurodiversity movement does the passage mention?.

QUESTION 8

The neurodiversity movement challenges traditional medical models that classify conditions like autism, ADHD, and dyslexia as disorders requiring treatment. Instead, neurodiversity advocates frame these neurological differences as natural human variation, comparable to biodiversity in ecosystems. This perspective doesn't deny that neurodivergent individuals may face genuine challenges, particularly in environments designed for neurotypical people, but it shifts focus from 'fixing' individuals to creating inclusive systems that accommodate different cognitive styles. In workplace contexts, neurodivergent employees often bring valuable strengths: enhanced pattern recognition, creative problem-solving approaches, hyperfocus capabilities, or exceptional attention to detail. Progressive companies are implementing neurodiversity hiring initiatives, recognizing that cognitive diversity enhances innovation and organizational performance. However, the movement faces criticism from some within neurodivergent communities who feel their need for support and accommodation is minimized, highlighting tensions between celebrating difference and acknowledging disability.

A) The author's comparison of neurodiversity to biodiversity suggests that:

B) 1) All neurological differences are identical

C) 2) Variation is beneficial and natural in human populations

D) 3) Only biological diversity matters in ecosystems

Correct Answer: A) The author's comparison of neurodiversity to biodiversity suggests that:

Explanation: The correct answer is **A) The author's comparison of neurodiversity to biodiversity suggests that:**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives The author's comparison of neurodiversity to biodiversity suggests that:.

QUESTION 9

Water scarcity affects over two billion people globally, a crisis intensified by population growth, climate change, and agricultural demands. While 71% of Earth's surface is water, only 2.5% is fresh, and much of that is trapped in glaciers. Innovative solutions are emerging across multiple fronts. Desalination technology converts seawater to drinking water, though energy costs and brine disposal create environmental challenges. Israel has pioneered water recycling, treating wastewater to such high standards that 90% is reused for agriculture. Atmospheric water generators extract moisture from air, providing decentralized solutions for arid regions. Singapore's NEWater program demonstrates integrated water management, combining reservoir collection, desalination, and advanced recycling. Despite technological advances, the most effective strategy remains conservation: fixing leaky infrastructure, implementing efficient irrigation, and reducing water-intensive consumption patterns. The challenge is not just technical but political and social, requiring international cooperation on shared water resources and equitable distribution policies.

A) What does the passage identify as the most effective water scarcity solution?

B) 1) Building more reservoirs

C) 2) Conservation and efficiency measures

D) 3) Atmospheric water generation exclusively

Correct Answer: A) What does the passage identify as the most effective water scarcity solution?

Explanation: The correct answer is **A) What does the passage identify as the most effective water scarcity solution?**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields What does the passage identify as the most effective water scarcity solution?.

QUESTION 10

Water scarcity affects over two billion people globally, a crisis intensified by population growth, climate change, and agricultural demands. While 71% of Earth's surface is water, only 2.5% is fresh, and much of that is trapped in glaciers. Innovative solutions are emerging across multiple fronts. Desalination technology converts seawater to drinking water, though energy costs and brine disposal create environmental challenges. Israel has pioneered water recycling, treating wastewater to such high standards that 90% is reused for agriculture. Atmospheric water generators extract moisture from air, providing decentralized solutions for arid regions. Singapore's NEWater program demonstrates integrated water management, combining reservoir collection, desalination, and advanced recycling. Despite technological advances, the most effective strategy remains conservation: fixing leaky infrastructure, implementing efficient irrigation, and reducing water-intensive consumption patterns. The challenge is not just technical but political and social, requiring international cooperation on shared water resources and equitable distribution policies.

A) According to the passage, desalination technology:

B) 1) Has no environmental drawbacks

C) 2) Provides a perfect solution to water scarcity

D) 3) Creates challenges related to energy use and waste disposal

Correct Answer: A) According to the passage, desalination technology:

Explanation: The correct answer is **A) According to the passage, desalination technology:**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields According to the passage, desalination technology:.

QUESTION 11

Water scarcity affects over two billion people globally, a crisis intensified by population growth, climate change, and agricultural demands. While 71% of Earth's surface is water, only 2.5% is fresh, and much of that is trapped in glaciers. Innovative solutions are emerging across multiple fronts. Desalination technology converts seawater to drinking water, though energy costs and brine disposal create environmental challenges. Israel has pioneered water recycling, treating wastewater to such high standards that 90% is reused for agriculture. Atmospheric water generators extract moisture from air, providing decentralized solutions for arid regions. Singapore's NEWater program demonstrates integrated water management, combining reservoir collection, desalination, and advanced recycling. Despite technological advances, the most effective strategy remains conservation: fixing leaky infrastructure, implementing efficient irrigation, and reducing water-intensive consumption patterns. The challenge is not just technical but political and social, requiring international cooperation on shared water resources and equitable distribution policies.

A) The author mentions Israel and Singapore primarily to:

B) 1) Criticize their water policies

C) 2) Provide examples of successful water management approaches

D) 3) Suggest all countries have identical water challenges

Correct Answer: A) The author mentions Israel and Singapore primarily to:

Explanation: The correct answer is **A) The author mentions Israel and Singapore primarily to:**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields The author mentions Israel and Singapore primarily to:.

QUESTION 12

Water scarcity affects over two billion people globally, a crisis intensified by population growth, climate change, and agricultural demands. While 71% of Earth's surface is water, only 2.5% is fresh, and much of that is trapped in glaciers. Innovative solutions are emerging across multiple fronts. Desalination technology converts seawater to drinking water, though energy costs and brine disposal create environmental challenges. Israel has pioneered water recycling, treating wastewater to such high standards that 90% is reused for agriculture. Atmospheric water generators extract moisture from air, providing decentralized solutions for arid regions. Singapore's NEWater program demonstrates integrated water management, combining reservoir collection, desalination, and advanced recycling. Despite technological advances, the most effective strategy remains conservation: fixing leaky infrastructure, implementing efficient irrigation, and reducing water-intensive consumption patterns. The challenge is not just technical but political and social, requiring international cooperation on shared water resources and equitable distribution policies.

A) The passage suggests that addressing water scarcity requires:

B) 1) Only technological innovation

C) 2) Political cooperation and social changes alongside technology

D) 3) Abandoning all current water infrastructure

Correct Answer: A) The passage suggests that addressing water scarcity requires:

Explanation: The correct answer is **A) The passage suggests that addressing water scarcity requires:**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields The passage suggests that addressing water scarcity requires:.

QUESTION 13

Water scarcity affects over two billion people globally, a crisis intensified by population growth, climate change, and agricultural demands. While 71% of Earth's surface is water, only 2.5% is fresh, and much of that is trapped in glaciers. Innovative solutions are emerging across multiple fronts. Desalination technology converts seawater to drinking water, though energy costs and brine disposal create environmental challenges. Israel has pioneered water recycling, treating wastewater to such high standards that 90% is reused for agriculture. Atmospheric water generators extract moisture from air, providing decentralized solutions for arid regions. Singapore's NEWater program demonstrates integrated water management, combining reservoir collection, desalination, and advanced recycling. Despite technological advances, the most effective strategy remains conservation: fixing leaky infrastructure, implementing efficient irrigation, and reducing water-intensive consumption patterns. The challenge is not just technical but political and social, requiring international cooperation on shared water resources and equitable distribution policies.

A) What paradox about water availability does the passage present?

B) 1) Water is more abundant in deserts than forests

C) 2) Earth has abundant water overall, but most is not fresh or accessible

D) 3) Freshwater is increasing due to glacier melt

Correct Answer: A) What paradox about water availability does the passage present?

Explanation: The correct answer is **A) What paradox about water availability does the passage present?**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields What paradox about water availability does the passage present?.

QUESTION 14

The spread of misinformation in digital ecosystems poses unprecedented challenges to informed decision-making and democratic processes. Unlike deliberate disinformation, which involves intentional deception, misinformation often spreads through well-meaning individuals sharing content they believe to be true. Social media algorithms that prioritize engagement over accuracy amplify sensational or emotionally charged content, regardless of veracity. Research shows that false information spreads six times faster than truth on platforms like Twitter, driven by novelty and emotional resonance. Combating misinformation requires multi-faceted approaches: media literacy education that teaches critical evaluation of sources, platform design changes that reduce viral spread of unverified content, and fact-checking initiatives that provide rapid verification. However, corrections often fail to change minds once false beliefs are established—a phenomenon called the 'continued influence effect.' Simply debunking myths can backfire by reinforcing them through repetition. Effective strategies must consider cognitive psychology, providing alternative narratives rather than mere negation.

A) How does the passage distinguish misinformation from disinformation?

B) 1) Misinformation is always harmless while disinformation is dangerous

C) 2) Misinformation lacks intentional deception while disinformation is deliberate

D) 3) Misinformation spreads slower than disinformation

Correct Answer: A) How does the passage distinguish misinformation from disinformation?

Explanation: The correct answer is **A) How does the passage distinguish misinformation from disinformation?**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of How does the passage distinguish misinformation from disinformation?.

QUESTION 15

The spread of misinformation in digital ecosystems poses unprecedented challenges to informed decision-making and democratic processes. Unlike deliberate disinformation, which involves intentional deception, misinformation often spreads through well-meaning individuals sharing content they believe to be true. Social media algorithms that prioritize engagement over accuracy amplify sensational or emotionally charged content, regardless of veracity. Research shows that false information spreads six times faster than truth on platforms like Twitter, driven by novelty and emotional resonance. Combating misinformation requires multi-faceted approaches: media literacy education that teaches critical evaluation of sources, platform design changes that reduce viral spread of unverified content, and fact-checking initiatives that provide rapid verification. However, corrections often fail to change minds once false beliefs are established—a phenomenon called the 'continued influence effect.' Simply debunking myths can backfire by reinforcing them through repetition. Effective strategies must consider cognitive psychology, providing alternative narratives rather than mere negation.

A) According to the passage, social media algorithms contribute to misinformation by:

B) 1) Deliberately creating false content

C) 2) Prioritizing engaging content over accurate content

D) 3) Preventing all fact-checking efforts

Correct Answer: A) According to the passage, social media algorithms contribute to misinformation by:

Explanation: The correct answer is **A) According to the passage, social media algorithms contribute to misinformation by:**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of According to the passage, social media algorithms contribute to misinformation by:.

QUESTION 16

The spread of misinformation in digital ecosystems poses unprecedented challenges to informed decision-making and democratic processes. Unlike deliberate disinformation, which involves intentional deception, misinformation often spreads through well-meaning individuals sharing content they believe to be true. Social media algorithms that prioritize engagement over accuracy amplify sensational or emotionally charged content, regardless of veracity. Research shows that false information spreads six times faster than truth on platforms like Twitter, driven by novelty and emotional resonance. Combating misinformation requires multi-faceted approaches: media literacy education that teaches critical evaluation of sources, platform design changes that reduce viral spread of unverified content, and fact-checking initiatives that provide rapid verification. However, corrections often fail to change minds once false beliefs are established—a phenomenon called the 'continued influence effect.' Simply debunking myths can backfire by reinforcing them through repetition. Effective strategies must consider cognitive psychology, providing alternative narratives rather than mere negation.

A) The 'continued influence effect' refers to:

B) 1) How corrections can actually reinforce false beliefs

C) 2) The speed at which true information spreads

D) 3) The effectiveness of fact-checking organizations

Correct Answer: A) The 'continued influence effect' refers to:

Explanation: The correct answer is **A) The 'continued influence effect' refers to:**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of The 'continued influence effect' refers to:.

QUESTION 17

The spread of misinformation in digital ecosystems poses unprecedented challenges to informed decision-making and democratic processes. Unlike deliberate disinformation, which involves intentional deception, misinformation often spreads through well-meaning individuals sharing content they believe to be true. Social media algorithms that prioritize engagement over accuracy amplify sensational or emotionally charged content, regardless of veracity. Research shows that false information spreads six times faster than truth on platforms like Twitter, driven by novelty and emotional resonance. Combating misinformation requires multi-faceted approaches: media literacy education that teaches critical evaluation of sources, platform design changes that reduce viral spread of unverified content, and fact-checking initiatives that provide rapid verification. However, corrections often fail to change minds once false beliefs are established—a phenomenon called the 'continued influence effect.' Simply debunking myths can backfire by reinforcing them through repetition. Effective strategies must consider cognitive psychology, providing alternative narratives rather than mere negation.

A) What does the passage suggest about effective misinformation correction?

B) 1) Simply stating facts is always sufficient

C) 2) Repetition of myths during debunking is helpful

D) 3) Providing alternative narratives is more effective than mere negation

Correct Answer: A) What does the passage suggest about effective misinformation correction?

Explanation: The correct answer is **A) What does the passage suggest about effective misinformation correction?**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of What does the passage suggest about effective misinformation correction?.

QUESTION 18

The research findings were significant, the methodology was rigorous, and the conclusions were well-supported.

A) Which analysis of this sentence is correct?

B) 1) It contains a comma splice error

C) 2) It correctly uses commas in a series

D) 3) It needs semicolons instead of commas

Correct Answer: A) Which analysis of this sentence is correct?

Explanation: The correct answer is **A) Which analysis of this sentence is correct?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 19

The professor explained the theory clearly, consequently, the students understood the complex material.

A) Which revision corrects the punctuation error?

B) 1) The professor explained the theory clearly; consequently, the students understood the complex material.

C) 2) The professor explained the theory clearly consequently the students understood the complex material.

D) 3) The professor explained the theory clearly, consequently the students understood the complex material.

Correct Answer: A) Which revision corrects the punctuation error?

Explanation: The correct answer is **A) Which revision corrects the punctuation error?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 20

Either the manager or the supervisors is responsible for training new employees.

A) What correction is needed?

B) 1) Change 'is' to 'are'

C) 2) Change 'Either' to 'Neither'

D) 3) Change 'supervisors' to 'supervisor'

Correct Answer: A) What correction is needed?

Explanation: The correct answer is **A) What correction is needed?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 21

Me and my colleagues presented the proposal to the executive board.

A) Which correction is needed?

B) 1) Change 'Me and my colleagues' to 'My colleagues and I'

C) 2) Change 'presented' to 'presents'

D) 3) Change 'executive' to 'executives'

Correct Answer: A) Which correction is needed?

Explanation: The correct answer is **A) Which correction is needed?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 22

The documentary explores environmental issues; furthermore, it proposes practical solutions for individuals.

A) What is the function of 'furthermore'?

B) 1) To show contrast

C) 2) To add additional related information

D) 3) To indicate cause and effect

Correct Answer: A) What is the function of 'furthermore'?

Explanation: The correct answer is **A) What is the function of 'furthermore'?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 23

After reviewing the data, the conclusion became clear to the researchers.

A) Which element is the subordinate clause?

B) 1) After reviewing the data

C) 2) the conclusion became clear

D) 3) to the researchers

Correct Answer: A) Which element is the subordinate clause?

Explanation: The correct answer is **A) Which element is the subordinate clause?**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to Which element is the subordinate clause?.

QUESTION 24

The committee's decision reflects its dedication to transparency and accountability.

A) This sentence correctly uses:

B) 1) 'its' as a possessive pronoun

C) 2) 'its' as a contraction of 'it is'

D) 3) 'it's' would be correct instead

Correct Answer: A) This sentence correctly uses:

Explanation: The correct answer is **A) This sentence correctly uses:**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 25

Hoping to improve sales, a new marketing strategy was developed by the team.

A) Which revision corrects the dangling modifier?

B) 1) A new marketing strategy was developed by the team, hoping to improve sales.

C) 2) Hoping to improve sales, the team developed a new marketing strategy.

D) 3) A new marketing strategy, hoping to improve sales, was developed by the team.

Correct Answer: A) Which revision corrects the dangling modifier?

Explanation: The correct answer is **A) Which revision corrects the dangling modifier?**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to Which revision corrects the dangling modifier?.

QUESTION 26

The author's argument is compelling and persuasive, she supports every claim with credible evidence.

A) Which revision best corrects this sentence?

B) 1) The author's argument is compelling and persuasive; she supports every claim with credible evidence.

C) 2) The author's argument is compelling and persuasive she supports every claim with credible evidence.

D) 3) The author's argument is compelling and persuasive, and she supports every claim with credible evidence.

Correct Answer: D) 3) The author's argument is compelling and persuasive, and she supports every claim with credible evidence.

Explanation: The correct answer is **D) 3) The author's argument is compelling and persuasive, and she supports every claim with credible evidence.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. '3) The author's argument is compelling and persuasive, and she supports every claim with credible evidence.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 27

The principle of the school announced a new principal policy regarding attendance.

A) What error appears in this sentence?

B) 1) 'Principle' and 'principal' are reversed

C) 2) 'Announced' should be 'announces'

D) 3) 'Regarding' should be 'about'

Correct Answer: A) What error appears in this sentence?

Explanation: The correct answer is **A) What error appears in this sentence?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 28

To succeed in college, effective time management skills are essential.

A) Is this sentence correct?

B) 1) Yes, it is correct as written

C) 2) No, it contains a dangling modifier

D) 3) No, 'essential' should be 'essentially'

Correct Answer: A) Is this sentence correct?

Explanation: The correct answer is **A) Is this sentence correct?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 29

The pianist practiced diligently, refined her technique, and was performing brilliantly at the competition.

A) Which revision corrects the parallel structure?

B) 1) The pianist practiced diligently, refined her technique, and performed brilliantly at the competition.

C) 2) The pianist was practicing diligently, refining her technique, and performed brilliantly at the competition.

D) 3) The pianist practiced diligently, was refining her technique, and performed brilliantly at the competition.

Correct Answer: A) Which revision corrects the parallel structure?

Explanation: The correct answer is **A) Which revision corrects the parallel structure?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 30

Although technology offers numerous benefits, excessive screen time can negatively impact physical health and social development.

A) This sentence effectively:

B) 1) Presents only negative aspects of technology

C) 2) Balances acknowledgment of benefits with recognition of drawbacks

D) 3) Avoids taking any position on the topic

Correct Answer: A) This sentence effectively:

Explanation: The correct answer is **A) This sentence effectively:**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 31

A restaurant bill totals $84.50 before tax. If the sales tax is 8%, what is the total bill including tax?

A) 1) $91.26

B) 2) $92.50

C) 3) $88.34

D) 4) $90.00

Correct Answer: A) 1) $91.26

Explanation: The correct answer is **A) 1) $91.26**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 32

A painter can complete a room in 4 hours. Working at the same rate, how long would it take to paint 3.5 rooms?

A) 1) 12 hours

B) 2) 14 hours

C) 3) 16 hours

D) 4) 15 hours

Correct Answer: B) 2) 14 hours

Explanation: The correct answer is **B) 2) 14 hours**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 2) 14 hours.

QUESTION 33

If 2/3 of a number is 48, what is the number?

A) 1) 32

B) 2) 72

C) 3) 64

D) 4) 96

Correct Answer: B) 2) 72

Explanation: The correct answer is **B) 2) 72**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 34

A store sells notebooks for $2.25 each. If a student buys 16 notebooks, what is the total cost?

A) 1) $34.00

B) 2) $36.00

C) 3) $32.00

D) 4) $38.00

Correct Answer: B) 2) $36.00

Explanation: The correct answer is **B) 2) $36.00**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 35

A map uses a scale of 1 inch = 15 miles. If two cities are 6.5 inches apart on the map, what is the actual distance?

A) 1) 90 miles

B) 2) 97.5 miles

C) 3) 85 miles

D) 4) 100 miles

Correct Answer: B) 2) 97.5 miles

Explanation: The correct answer is **B) 2) 97.5 miles**. The midpoint formula is M = $((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is d = $sqrt((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces 2) 97.5 miles.

QUESTION 36

Solve for x: 4(3x - 7) = 2(x + 5)

A) 1) x = 3.8

B) 2) x = 4

C) 3) x = 3

D) 4) x = 5

Correct Answer: A) 1) x = 3.8

Explanation: The correct answer is **A) 1) x = 3.8**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 1) x = 3.8.

QUESTION 37

If $h(x) = x^2 - 5x + 6$, what are the zeros of the function?

A) 1) x = 2 and x = 3

B) 2) x = -2 and x = -3

C) 3) x = 1 and x = 6

D) 4) x = -1 and x = -6

Correct Answer: A) 1) x = 2 and x = 3

Explanation: The correct answer is **A) 1) x = 2 and x = 3**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 1) x = 2 and x = 3.

QUESTION 38

Simplify: $(5x^3y^2)(2xy^4)$

A) 1) $10x^4y^6$

B) 2) $7x^4y^6$

C) 3) $10x^3y^8$

D) 4) $10x^4y^8$

Correct Answer: A) 1) $10x^4y^6$

Explanation: The correct answer is **A) 1) $10x^4y^6$**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 1) $10x^4y^6$.

QUESTION 39

The difference between a number and 15 is 23. What is the number?

A) 1) 8

B) 2) 38

C) 3) -8

D) 4) 45

Correct Answer: B) 2) 38

Explanation: The correct answer is **B) 2) 38**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 40

Expand: (3x + 4)(2x - 5)

A) 1) $6x^2 + 2x - 20$

B) 2) $6x^2 - 7x - 20$

C) 3) $6x^2 - 15x - 20$

D) 4) $6x^2 + 23x - 20$

Correct Answer: B) 2) $6x^2 - 7x - 20$

Explanation: The correct answer is **B) 2) $6x^2 - 7x - 20$**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 41

A square has a perimeter of 68 inches. What is its area?

A) 1) 289 square inches

B) 2) 272 square inches

C) 3) 324 square inches

D) 4) 256 square inches

Correct Answer: A) 1) 289 square inches

Explanation: The correct answer is **A) 1) 289 square inches**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 1) 289 square inches.

QUESTION 42

What is the volume of a cylinder with radius 7 cm and height 10 cm? (Use $\pi \approx 3.14$)

A) 1) 1,538.6 cubic cm

B) 2) 439.6 cubic cm

C) 3) 219.8 cubic cm

D) 4) 769.3 cubic cm

Correct Answer: A) 1) 1,538.6 cubic cm

Explanation: The correct answer is **A) 1) 1,538.6 cubic cm**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 1) 1,538.6 cubic cm.

QUESTION 43

In a right triangle, if the hypotenuse is 17 feet and one leg is 8 feet, what is the length of the other leg?

A) 1) 9 feet

B) 2) 15 feet

C) 3) 13 feet

D) 4) 12 feet

Correct Answer: B) 2) 15 feet

Explanation: The correct answer is **B) 2) 15 feet**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 2) 15 feet.

QUESTION 44

Two complementary angles have measures in the ratio 2:3. What are the measures of the angles?

A) 1) 30° and 45°

B) 2) 36° and 54°

C) 3) 40° and 60°

D) 4) 45° and 67.5°

Correct Answer: B) 2) 36° and 54°

Explanation: The correct answer is **B) 2) 36° and 54°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 2) 36° and 54°.

QUESTION 45

A rectangular swimming pool is 25 meters long and 12 meters wide. What is the length of the diagonal?

A) 1) 37 meters

B) 2) approximately 27.7 meters

C) 3) 30 meters

D) 4) approximately 26.2 meters

Correct Answer: B) 2) approximately 27.7 meters

Explanation: The correct answer is **B) 2) approximately 27.7 meters**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 46

The scores on a quiz are: 16, 18, 20, 18, 22, 24, 18. What is the median?

A) 1) 18

B) 2) 19

C) 3) 20

D) 4) 19.43

Correct Answer: A) 1) 18

Explanation: The correct answer is **A) 1) 18**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of 1) 18.

QUESTION 47

A deck of cards has 52 cards: 13 hearts, 13 diamonds, 13 clubs, and 13 spades. What is the probability of drawing a heart?

A) 1) 1/2

B) 2) 1/4

C) 3) 1/13

D) 4) 1/3

Correct Answer: B) 2) 1/4

Explanation: The correct answer is **B) 2) 1/4**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 2) 1/4.

QUESTION 48

The mean of six numbers is 35. If five of the numbers are 28, 32, 40, 38, and 36, what is the sixth number?

A) 1) 35

B) 2) 36

C) 3) 34

D) 4) 38

Correct Answer: B) 2) 36

Explanation: The correct answer is **B) 2) 36**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 2) 36.

QUESTION 49

In a class of 30 students, 40% received an A grade. How many students received an A?

A) 1) 10

B) 2) 12

C) 3) 15

D) 4) 18

Correct Answer: B) 2) 12

Explanation: The correct answer is **B) 2) 12**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 50

The following temperatures were recorded: 65°, 70°, 68°, 72°, 65°, 75°. What is the range?

A) 1) 5°

B) 2) 7°

C) 3) 10°

D) 4) 8°

Correct Answer: C) 3) 10°

Explanation: The correct answer is **C) 3) 10°**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 3) 10°.

QUESTION 51

"Community service requirements for high school graduation are implemented in many school districts. Advocates believe mandatory service builds civic responsibility and teaches valuable skills. Critics argue that forced volunteerism contradicts the concept of genuine service and places burdens on students already facing academic pressures. Write an essay in which you develop a position on whether high schools should require community service for graduation. Support your argument with specific reasoning and examples."

A) Develop a clear position on mandatory community service requirements

B) Focus on: Clear argumentative thesis | Specific supporting evidence | Analysis of both perspectives | Coherent structure | Grammar and mechanics

C)

D)

Correct Answer: A) Develop a clear position on mandatory community service requirements

Explanation: The correct answer is **A) Develop a clear position on mandatory community service requirements**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

FULL CRC EXAM

TSIA2 Simulated Exam 13 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

Coastal communities worldwide are creating artificial reefs using unexpected materials: decommissioned ships, subway cars, and purpose-built concrete structures. These underwater installations serve multiple functions beyond marine habitat creation. They attract fish populations, supporting both biodiversity and commercial fishing industries. For recreational diving, artificial reefs provide accessible sites that reduce pressure on fragile natural reefs. Some designs incorporate carbon-sequestering materials, actively removing CO2 from ocean water. However, not all artificial reefs succeed; poorly planned projects have created marine debris rather than ecosystems. Success requires careful site selection, appropriate materials that won't leach toxins, and consideration of local currents and species. The Osborne Reef disaster off Florida's coast, where millions of tires bundled together broke apart and damaged natural habitat, demonstrates the consequences of inadequate planning. When executed properly, artificial reefs can accelerate ecosystem recovery, but they should complement, not replace, natural reef conservation efforts.

A) According to the passage, successful artificial reefs require:

B) 1) Only creativity in material selection

C) 2) Careful planning including site selection and material safety

D) 3) Replacement of all natural reefs

Correct Answer: A) According to the passage, successful artificial reefs require:

Explanation: The correct answer is **A) According to the passage, successful artificial reefs require:**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives According to the passage, successful artificial reefs require:.

QUESTION 2

Coastal communities worldwide are creating artificial reefs using unexpected materials: decommissioned ships, subway cars, and purpose-built concrete structures. These underwater installations serve multiple functions beyond marine habitat creation. They attract fish populations, supporting both biodiversity and commercial fishing industries. For recreational diving, artificial reefs provide accessible sites that reduce pressure on fragile natural reefs. Some designs incorporate carbon-sequestering materials, actively removing CO2 from ocean water. However, not all artificial reefs succeed; poorly planned projects have created marine debris rather than ecosystems. Success requires careful site selection, appropriate materials that won't leach toxins, and consideration of local currents and species. The Osborne Reef disaster off Florida's coast, where millions of tires bundled together broke apart and damaged natural habitat, demonstrates the consequences of inadequate planning. When executed properly, artificial reefs can accelerate ecosystem recovery, but they should complement, not replace, natural reef conservation efforts.

A) The author mentions the Osborne Reef disaster to:

B) 1) Demonstrate that all artificial reefs fail

C) 2) Illustrate the importance of proper planning

D) 3) Advocate for using tires in reef construction

Correct Answer: A) The author mentions the Osborne Reef disaster to:

Explanation: The correct answer is **A) The author mentions the Osborne Reef disaster to:**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives The author mentions the Osborne Reef disaster to:.

QUESTION 3

Coastal communities worldwide are creating artificial reefs using unexpected materials: decommissioned ships, subway cars, and purpose-built concrete structures. These underwater installations serve multiple functions beyond marine habitat creation. They attract fish populations, supporting both biodiversity and commercial fishing industries. For recreational diving, artificial reefs provide accessible sites that reduce pressure on fragile natural reefs. Some designs incorporate carbon-sequestering materials, actively removing CO2 from ocean water. However, not all artificial reefs succeed; poorly planned projects have created marine debris rather than ecosystems. Success requires careful site selection, appropriate materials that won't leach toxins, and consideration of local currents and species. The Osborne Reef disaster off Florida's coast, where millions of tires bundled together broke apart and damaged natural habitat, demonstrates the consequences of inadequate planning. When executed properly, artificial reefs can accelerate ecosystem recovery, but they should complement, not replace, natural reef conservation efforts.

A) What does the passage suggest about the relationship between artificial and natural reefs?

B) 1) Artificial reefs should completely replace natural ones

C) 2) Artificial reefs are always superior to natural reefs

D) 3) Artificial reefs should complement natural reef conservation

Correct Answer: A) What does the passage suggest about the relationship between artificial and natural reefs?

Explanation: The correct answer is **A) What does the passage suggest about the relationship between artificial and natural reefs?**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives What does the passage suggest about the relationship between artificial and natural reefs?.

QUESTION 4

Coastal communities worldwide are creating artificial reefs using unexpected materials: decommissioned ships, subway cars, and purpose-built concrete structures. These underwater installations serve multiple functions beyond marine habitat creation. They attract fish populations, supporting both biodiversity and commercial fishing industries. For recreational diving, artificial reefs provide accessible sites that reduce pressure on fragile natural reefs. Some designs incorporate carbon-sequestering materials, actively removing CO2 from ocean water. However, not all artificial reefs succeed; poorly planned projects have created marine debris rather than ecosystems. Success requires careful site selection, appropriate materials that won't leach toxins, and consideration of local currents and species. The Osborne Reef disaster off Florida's coast, where millions of tires bundled together broke apart and damaged natural habitat, demonstrates the consequences of inadequate planning. When executed properly, artificial reefs can accelerate ecosystem recovery, but they should complement, not replace, natural reef conservation efforts.

A) Which benefit of artificial reefs is NOT mentioned in the passage?

B) 1) Supporting commercial fishing industries

C) 2) Providing recreational diving sites

D) 3) Removing CO2 from ocean water

Correct Answer: A) Which benefit of artificial reefs is NOT mentioned in the passage?

Explanation: The correct answer is **A) Which benefit of artificial reefs is NOT mentioned in the passage?**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives Which benefit of artificial reefs is NOT mentioned in the passage?.

QUESTION 5

The gig economy—characterized by short-term contracts and freelance work rather than permanent employment—has transformed labor markets. Platforms like Uber, TaskRabbit, and Upwork connect workers directly with customers, offering flexibility and autonomy. Proponents celebrate the freedom to set schedules, choose projects, and work from anywhere. For some, gig work provides supplemental income; for others, it's primary employment. However, this flexibility comes with significant trade-offs. Gig workers typically lack benefits like health insurance, retirement contributions, paid leave, and workplace protections. Income volatility creates financial insecurity, and workers bear business expenses—vehicle maintenance, equipment, insurance—that traditional employers cover. The classification of gig workers as independent contractors rather than employees remains legally contentious, with significant implications for labor rights and corporate responsibility. As automation and AI advance, concerns emerge about algorithmic management systems that monitor and evaluate workers with minimal human oversight, raising questions about dignity and fairness in the modern workplace.

A) What is the main tension described in the passage regarding gig work?

B) 1) Technology versus traditional tools

C) 2) Flexibility and autonomy versus benefits and security

D) 3) Urban versus rural employment

Correct Answer: A) What is the main tension described in the passage regarding gig work?

Explanation: The correct answer is **A) What is the main tension described in the passage regarding gig work?**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives What is the main tension described in the passage regarding gig work?.

QUESTION 6

The gig economy—characterized by short-term contracts and freelance work rather than permanent employment—has transformed labor markets. Platforms like Uber, TaskRabbit, and Upwork connect workers directly with customers, offering flexibility and autonomy. Proponents celebrate the freedom to set schedules, choose projects, and work from anywhere. For some, gig work provides supplemental income; for others, it's primary employment. However, this flexibility comes with significant trade-offs. Gig workers typically lack benefits like health insurance, retirement contributions, paid leave, and workplace protections. Income volatility creates financial insecurity, and workers bear business expenses—vehicle maintenance, equipment, insurance—that traditional employers cover. The classification of gig workers as independent contractors rather than employees remains legally contentious, with significant implications for labor rights and corporate responsibility. As automation and AI advance, concerns emerge about algorithmic management systems that monitor and evaluate workers with minimal human oversight, raising questions about dignity and fairness in the modern workplace.

A) According to the passage, gig workers classified as independent contractors:

B) 1) Receive comprehensive workplace benefits

C) 2) Have guaranteed minimum wages

D) 3) Lack typical employee protections and benefits

Correct Answer: A) According to the passage, gig workers classified as independent contractors:

Explanation: The correct answer is **A) According to the passage, gig workers classified as independent contractors:**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives According to the passage, gig workers classified as independent contractors:.

QUESTION 7

The gig economy—characterized by short-term contracts and freelance work rather than permanent employment—has transformed labor markets. Platforms like Uber, TaskRabbit, and Upwork connect workers directly with customers, offering flexibility and autonomy. Proponents celebrate the freedom to set schedules, choose projects, and work from anywhere. For some, gig work provides supplemental income; for others, it's primary employment. However, this flexibility comes with significant trade-offs. Gig workers typically lack benefits like health insurance, retirement contributions, paid leave, and workplace protections. Income volatility creates financial insecurity, and workers bear business expenses—vehicle maintenance, equipment, insurance—that traditional employers cover. The classification of gig workers as independent contractors rather than employees remains legally contentious, with significant implications for labor rights and corporate responsibility. As automation and AI advance, concerns emerge about algorithmic management systems that monitor and evaluate workers with minimal human oversight, raising questions about dignity and fairness in the modern workplace.

A) The author's mention of algorithmic management raises concerns about:

B) 1) Improved workplace efficiency

C) 2) Worker dignity and fair treatment

D) 3) Faster payment processing

Correct Answer: A) The author's mention of algorithmic management raises concerns about:

Explanation: The correct answer is **A) The author's mention of algorithmic management raises concerns about:**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives The author's mention of algorithmic management raises concerns about:.

QUESTION 8

The gig economy—characterized by short-term contracts and freelance work rather than permanent employment—has transformed labor markets. Platforms like Uber, TaskRabbit, and Upwork connect workers directly with customers, offering flexibility and autonomy. Proponents celebrate the freedom to set schedules, choose projects, and work from anywhere. For some, gig work provides supplemental income; for others, it's primary employment. However, this flexibility comes with significant trade-offs. Gig workers typically lack benefits like health insurance, retirement contributions, paid leave, and workplace protections. Income volatility creates financial insecurity, and workers bear business expenses—vehicle maintenance, equipment, insurance—that traditional employers cover. The classification of gig workers as independent contractors rather than employees remains legally contentious, with significant implications for labor rights and corporate responsibility. As automation and AI advance, concerns emerge about algorithmic management systems that monitor and evaluate workers with minimal human oversight, raising questions about dignity and fairness in the modern workplace.

A) The passage presents the gig economy as:

B) 1) Entirely positive for all workers

C) 2) Completely detrimental to society

D) 3) Having both advantages and significant drawbacks

Correct Answer: A) The passage presents the gig economy as:

Explanation: The correct answer is **A) The passage presents the gig economy as:**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives The passage presents the gig economy as:.

QUESTION 9

Ancient libraries were far more than book repositories; they served as intellectual hubs, research centers, and symbols of cultural power. The Library of Alexandria, perhaps history's most famous, aimed to collect all human knowledge, employing scholars to translate works from across the known world. Its destruction—likely occurring gradually through multiple events rather than a single catastrophic fire—represents one of history's great intellectual losses. The House of Wisdom in Baghdad similarly gathered texts from Greek, Persian, and Indian traditions, fostering the Islamic Golden Age's scientific and philosophical advances. These institutions weren't passive archives but active centers of scholarship where scholars collaborated, debated, and generated new knowledge. The concept of universal knowledge collection raises intriguing questions about what gets preserved and what gets lost. Historical libraries reflected the biases and priorities of their patrons; countless works by women, enslaved people, and marginalized communities were never collected or have been lost. Modern digitization efforts face analogous challenges: whose knowledge is preserved, whose stories are told, and who decides what matters.

A) The passage characterizes ancient libraries as:

B) 1) Simple storage facilities for books

C) 2) Active centers of scholarly collaboration and knowledge creation

D) 3) Exclusively religious institutions

Correct Answer: A) The passage characterizes ancient libraries as:

Explanation: The correct answer is **A) The passage characterizes ancient libraries as:**. Similar figures have proportional corresponding sides and equal corresponding angles. Setting up a proportion with the scale factor and solving for the unknown side yields The passage characterizes ancient libraries as:.

QUESTION 10

Ancient libraries were far more than book repositories; they served as intellectual hubs, research centers, and symbols of cultural power. The Library of Alexandria, perhaps history's most famous, aimed to collect all human knowledge, employing scholars to translate works from across the known world. Its destruction—likely occurring gradually through multiple events rather than a single catastrophic fire—represents one of history's great intellectual losses. The House of Wisdom in Baghdad similarly gathered texts from Greek, Persian, and Indian traditions, fostering the Islamic Golden Age's scientific and philosophical advances. These institutions weren't passive archives but active centers of scholarship where scholars collaborated, debated, and generated new knowledge. The concept of universal knowledge collection raises intriguing questions about what gets preserved and what gets lost. Historical libraries reflected the biases and priorities of their patrons; countless works by women, enslaved people, and marginalized communities were never collected or have been lost. Modern digitization efforts face analogous challenges: whose knowledge is preserved, whose stories are told, and who decides what matters.

A) According to the passage, the Library of Alexandria's destruction:

B) 1) Occurred in a single catastrophic fire

C) 2) Was intentional and well-documented

D) 3) Likely happened gradually through multiple events

Correct Answer: A) According to the passage, the Library of Alexandria's destruction:

Explanation: The correct answer is **A) According to the passage, the Library of Alexandria's destruction:**. Similar figures have proportional corresponding sides and equal corresponding angles. Setting up a proportion with the scale factor and solving for the unknown side yields According to the passage, the Library of Alexandria's destruction:.

QUESTION 11

Ancient libraries were far more than book repositories; they served as intellectual hubs, research centers, and symbols of cultural power. The Library of Alexandria, perhaps history's most famous, aimed to collect all human knowledge, employing scholars to translate works from across the known world. Its destruction—likely occurring gradually through multiple events rather than a single catastrophic fire—represents one of history's great intellectual losses. The House of Wisdom in Baghdad similarly gathered texts from Greek, Persian, and Indian traditions, fostering the Islamic Golden Age's scientific and philosophical advances. These institutions weren't passive archives but active centers of scholarship where scholars collaborated, debated, and generated new knowledge. The concept of universal knowledge collection raises intriguing questions about what gets preserved and what gets lost. Historical libraries reflected the biases and priorities of their patrons; countless works by women, enslaved people, and marginalized communities were never collected or have been lost. Modern digitization efforts face analogous challenges: whose knowledge is preserved, whose stories are told, and who decides what matters.

A) What parallel does the author draw between ancient libraries and modern digitization?

B) 1) Both perfectly preserve all knowledge

C) 2) Both face questions about whose knowledge is prioritized

D) 3) Neither involves selection bias

Correct Answer: A) What parallel does the author draw between ancient libraries and modern digitization?

Explanation: The correct answer is **A) What parallel does the author draw between ancient libraries and modern digitization?**. Similar figures have proportional corresponding sides and equal corresponding angles. Setting up a proportion with the scale factor and solving for the unknown side yields What parallel does the author draw between ancient libraries and modern digitization?.

QUESTION 12

Ancient libraries were far more than book repositories; they served as intellectual hubs, research centers, and symbols of cultural power. The Library of Alexandria, perhaps history's most famous, aimed to collect all human knowledge, employing scholars to translate works from across the known world. Its destruction—likely occurring gradually through multiple events rather than a single catastrophic fire—represents one of history's great intellectual losses. The House of Wisdom in Baghdad similarly gathered texts from Greek, Persian, and Indian traditions, fostering the Islamic Golden Age's scientific and philosophical advances. These institutions weren't passive archives but active centers of scholarship where scholars collaborated, debated, and generated new knowledge. The concept of universal knowledge collection raises intriguing questions about what gets preserved and what gets lost. Historical libraries reflected the biases and priorities of their patrons; countless works by women, enslaved people, and marginalized communities were never collected or have been lost. Modern digitization efforts face analogous challenges: whose knowledge is preserved, whose stories are told, and who decides what matters.

A) The passage suggests that historical libraries:

B) 1) Completely represented all human knowledge

C) 2) Avoided all cultural bias in collection

D) 3) Reflected the priorities and biases of their patrons

Correct Answer: A) The passage suggests that historical libraries:

Explanation: The correct answer is **A) The passage suggests that historical libraries:**. Similar figures have proportional corresponding sides and equal corresponding angles. Setting up a proportion with the scale factor and solving for the unknown side yields The passage suggests that historical libraries:.

QUESTION 13

Epigenetics challenges the notion that DNA sequence alone determines biological destiny. While our genetic code remains fixed, epigenetic modifications—chemical tags that attach to DNA or associated proteins—can turn genes on or off without altering the underlying sequence. Environmental factors including diet, stress, toxin exposure, and even social experiences can trigger epigenetic changes that affect how genes are expressed. Remarkably, some epigenetic modifications can be inherited across generations, meaning experiences of parents or grandparents might influence descendant biology. Research on the Dutch Hunger Winter of 1944-1945 revealed that children whose mothers experienced famine during pregnancy showed different metabolic patterns decades later, and these effects appeared in subsequent generations. This finding blurs the line between nature and nurture, suggesting environment and heredity interact more dynamically than previously understood. Therapeutic implications are profound: unlike genetic mutations, epigenetic changes are potentially reversible, opening possibilities for treating diseases by modifying gene expression rather than altering DNA itself.

A) What distinguishes epigenetic changes from genetic mutations?

B) 1) Epigenetic changes alter DNA sequence while mutations do not

C) 2) Epigenetic changes affect gene expression without changing DNA sequence

D) 3) Epigenetic changes cannot be inherited

Correct Answer: A) What distinguishes epigenetic changes from genetic mutations?

Explanation: The correct answer is **A) What distinguishes epigenetic changes from genetic mutations?**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula $x = (-b \pm \sqrt{b^2-4ac}) / 2a$. Setting the equation equal to zero and applying the appropriate method yields What distinguishes epigenetic changes from genetic mutations?.

QUESTION 14

Epigenetics challenges the notion that DNA sequence alone determines biological destiny. While our genetic code remains fixed, epigenetic modifications—chemical tags that attach to DNA or associated proteins—can turn genes on or off without altering the underlying sequence. Environmental factors including diet, stress, toxin exposure, and even social experiences can trigger epigenetic changes that affect how genes are expressed. Remarkably, some epigenetic modifications can be inherited across generations, meaning experiences of parents or grandparents might influence descendant biology. Research on the Dutch Hunger Winter of 1944-1945 revealed that children whose mothers experienced famine during pregnancy showed different metabolic patterns decades later, and these effects appeared in subsequent generations. This finding blurs the line between nature and nurture, suggesting environment and heredity interact more dynamically than previously understood. Therapeutic implications are profound: unlike genetic mutations, epigenetic changes are potentially reversible, opening possibilities for treating diseases by modifying gene expression rather than altering DNA itself.

A) The Dutch Hunger Winter research demonstrates that:

B) 1) Genetic code changes in response to starvation

C) 2) Environmental experiences can have multi-generational biological effects

D) 3) Epigenetic changes are always harmful

Correct Answer: A) The Dutch Hunger Winter research demonstrates that:

Explanation: The correct answer is **A) The Dutch Hunger Winter research demonstrates that:**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula $x = (-b \pm \sqrt{b^2-4ac}) / 2a$. Setting the equation equal to zero and applying the appropriate method yields The Dutch Hunger Winter research demonstrates that:.

QUESTION 15

Epigenetics challenges the notion that DNA sequence alone determines biological destiny. While our genetic code remains fixed, epigenetic modifications—chemical tags that attach to DNA or associated proteins—can turn genes on or off without altering the underlying sequence. Environmental factors including diet, stress, toxin exposure, and even social experiences can trigger epigenetic changes that affect how genes are expressed. Remarkably, some epigenetic modifications can be inherited across generations, meaning experiences of parents or grandparents might influence descendant biology. Research on the Dutch Hunger Winter of 1944-1945 revealed that children whose mothers experienced famine during pregnancy showed different metabolic patterns decades later, and these effects appeared in subsequent generations. This finding blurs the line between nature and nurture, suggesting environment and heredity interact more dynamically than previously understood. Therapeutic implications are profound: unlike genetic mutations, epigenetic changes are potentially reversible, opening possibilities for treating diseases by modifying gene expression rather than altering DNA itself.

A) According to the passage, epigenetics 'blurs the line between nature and nurture' because:

B) 1) Genetics and environment are completely unrelated

C) 2) Environmental factors can influence gene expression and potentially be inherited

D) 3) All traits are purely environmental

Correct Answer: A) According to the passage, epigenetics 'blurs the line between nature and nurture' because:

Explanation: The correct answer is **A) According to the passage, epigenetics 'blurs the line between nature and nurture' because:**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula $x = (-b \pm \sqrt{b^2-4ac}) / 2a$. Setting the equation equal to zero and applying the appropriate method yields According to the passage, epigenetics 'blurs the line between nature and nurture' because:.

QUESTION 16

Epigenetics challenges the notion that DNA sequence alone determines biological destiny. While our genetic code remains fixed, epigenetic modifications—chemical tags that attach to DNA or associated proteins—can turn genes on or off without altering the underlying sequence. Environmental factors including diet, stress, toxin exposure, and even social experiences can trigger epigenetic changes that affect how genes are expressed. Remarkably, some epigenetic modifications can be inherited across generations, meaning experiences of parents or grandparents might influence descendant biology. Research on the Dutch Hunger Winter of 1944-1945 revealed that children whose mothers experienced famine during pregnancy showed different metabolic patterns decades later, and these effects appeared in subsequent generations. This finding blurs the line between nature and nurture, suggesting environment and heredity interact more dynamically than previously understood. Therapeutic implications are profound: unlike genetic mutations, epigenetic changes are potentially reversible, opening possibilities for treating diseases by modifying gene expression rather than altering DNA itself.

A) What therapeutic potential does epigenetics offer?

B) 1) Permanently altering DNA in all cells

C) 2) Eliminating all genetic diseases immediately

D) 3) Potentially reversing disease-related gene expression changes

Correct Answer: A) What therapeutic potential does epigenetics offer?

Explanation: The correct answer is **A) What therapeutic potential does epigenetics offer?**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula $x = (-b \pm \sqrt{b^2-4ac}) / 2a$. Setting the equation equal to zero and applying the appropriate method yields What therapeutic potential does epigenetics offer?.

QUESTION 17

The engineer designed the prototype, tested its functionality, and was making improvements based on the results.

A) Which revision corrects the parallel structure error?

B) 1) The engineer designed the prototype, tested its functionality, and made improvements based on the results.

C) 2) The engineer was designing the prototype, testing its functionality, and made improvements based on the results.

D) 3) The engineer designed the prototype, was testing its functionality, and made improvements based on the results.

Correct Answer: A) Which revision corrects the parallel structure error?

Explanation: The correct answer is **A) Which revision corrects the parallel structure error?**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives Which revision corrects the parallel structure error?.

QUESTION 18

The coach, along with the assistant trainers, were reviewing game footage.

A) What correction is needed?

B) 1) Change 'were' to 'was'

C) 2) Change 'trainers' to 'trainer'

D) 3) Remove commas around the phrase

Correct Answer: A) What correction is needed?

Explanation: The correct answer is **A) What correction is needed?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 19

The exhibition featured contemporary art, it attracted visitors from across the country.

A) Which revision best corrects the comma splice?

B) 1) The exhibition featured contemporary art; it attracted visitors from across the country.

C) 2) The exhibition featured contemporary art it attracted visitors from across the country.

D) 3) The exhibition featured contemporary art, and it attracted visitors from across the country.

Correct Answer: D) 3) The exhibition featured contemporary art, and it attracted visitors from across the country.

Explanation: The correct answer is **D) 3) The exhibition featured contemporary art, and it attracted visitors from across the country.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 20

The journalist interviewed several witnesses whom had observed the incident.

A) What correction is needed?

B) 1) Change 'whom' to 'who'

C) 2) Change 'had observed' to 'observed'

D) 3) Change 'several' to 'many'

Correct Answer: A) What correction is needed?

Explanation: The correct answer is **A) What correction is needed?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 21

The experiment yielded unexpected results; therefore, the researchers redesigned their methodology.

A) What is the function of 'therefore' in this sentence?

B) 1) To show contrast

C) 2) To indicate cause and effect

D) 3) To add supporting details

Correct Answer: A) What is the function of 'therefore' in this sentence?

Explanation: The correct answer is **A) What is the function of 'therefore' in this sentence?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 22

Neither the textbook nor the supplemental materials was sufficient for understanding the complex topic.

A) Is this sentence correct?

B) 1) Yes, the singular verb agrees with the closer subject

C) 2) No, 'was' should be 'were'

D) 3) No, 'Neither' should be 'Either'

Correct Answer: A) Is this sentence correct?

Explanation: The correct answer is **A) Is this sentence correct?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 23

The museum's new installation challenges visitors to reconsider their assumptions about modern art.

A) What is the subject of this sentence?

B) 1) museum's

C) 2) installation

D) 3) visitors

Correct Answer: A) What is the subject of this sentence?

Explanation: The correct answer is **A) What is the subject of this sentence?**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives What is the subject of this sentence?.

QUESTION 24

Being completely absorbed in the novel, the hours passed quickly.

A) Which revision corrects the dangling modifier?

B) 1) Being completely absorbed in the novel, time passed quickly.

C) 2) The hours passed quickly, being completely absorbed in the novel.

D) 3) Being completely absorbed in the novel, I found the hours passed quickly.

Correct Answer: A) Which revision corrects the dangling modifier?

Explanation: The correct answer is **A) Which revision corrects the dangling modifier?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 25

The new policy will have a significant effect on employee morale.

A) This sentence correctly uses:

B) 1) 'effect' as a noun meaning 'result or impact'

C) 2) 'effect' as a verb meaning 'to influence'

D) 3) The wrong word; 'affect' would be correct

Correct Answer: A) This sentence correctly uses:

Explanation: The correct answer is **A) This sentence correctly uses:**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 26

While critics questioned the film's accuracy, audiences appreciated its emotional depth and compelling performances.

A) This sentence is effective because it:

B) 1) Avoids any specific details

C) 2) Presents contrasting perspectives clearly

D) 3) Uses only simple sentence structure

Correct Answer: A) This sentence is effective because it:

Explanation: The correct answer is **A) This sentence is effective because it:**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 27

The architects proposal included innovative designs; however, the budget constraints limited implementation.

A) What correction is needed?

B) 1) Change 'architects' to 'architect's'

C) 2) Change the semicolon to a comma

D) 3) Change 'however' to 'moreover'

Correct Answer: A) What correction is needed?

Explanation: The correct answer is **A) What correction is needed?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 28

Each of the participants were given detailed instructions before the study began.

A) What correction is needed?

B) 1) Change 'were' to 'was'

C) 2) Change 'participants' to 'participant'

D) 3) Change 'Each' to 'All'

Correct Answer: A) What correction is needed?

Explanation: The correct answer is **A) What correction is needed?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 29

The documentary explores climate change, examining both scientific evidence and personal narratives from affected communities.

A) This sentence effectively:

B) 1) Uses a participial phrase to add detail

C) 2) Contains a comma splice error

D) 3) Lacks parallel structure

Correct Answer: A) This sentence effectively:

Explanation: The correct answer is **A) This sentence effectively:**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 30

Whom do you think will be selected for the award?

A) Is this sentence correct?

B) 1) Yes, 'whom' is correct

C) 2) No, it should be 'who' as the subject of 'will be selected'

D) 3) No, 'think' should be 'thinks'

Correct Answer: A) Is this sentence correct?

Explanation: The correct answer is **A) Is this sentence correct?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 31

A furniture store offers a 25% discount on a sofa originally priced at $560. What is the sale price?

A) 1) $420

B) 2) $435

C) 3) $440

D) 4) $450

Correct Answer: A) 1) $420

Explanation: The correct answer is **A) 1) $420**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 32

A cyclist travels 72 miles in 4.5 hours. What is the average speed in miles per hour?

A) 1) 15 mph

B) 2) 16 mph

C) 3) 18 mph

D) 4) 20 mph

Correct Answer: B) 2) 16 mph

Explanation: The correct answer is **B) 2) 16 mph**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 2) 16 mph.

QUESTION 33

If 5/6 of a number is 75, what is 2/3 of that number?

A) 1) 60

B) 2) 50

C) 3) 70

D) 4) 55

Correct Answer: A) 1) 60

Explanation: The correct answer is **A) 1) 60**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 34

A recipe for 8 servings requires 3.5 cups of rice. How many cups are needed for 20 servings?

A) 1) 7.5 cups

B) 2) 8.75 cups

C) 3) 9.5 cups

D) 4) 10 cups

Correct Answer: B) 2) 8.75 cups

Explanation: The correct answer is **B) 2) 8.75 cups**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 35

A phone plan costs $45 per month plus $0.15 per minute for calls over 500 minutes. What is the total cost for a month with 680 minutes of calls?

A) 1) $72.00

B) 2) $57.00

C) 3) $69.00

D) 4) $147.00

Correct Answer: B) 2) $57.00

Explanation: The correct answer is **B) 2) $57.00**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 36

Solve for x: 6(x - 4) = 3(x + 2)

A) 1) x = 10

B) 2) x = 8

C) 3) x = 12

D) 4) x = 6

Correct Answer: A) 1) x = 10

Explanation: The correct answer is **A) 1) x = 10**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 1) x = 10.

QUESTION 37

If $k(x) = 4x^2 - 2x + 3$, what is $k(-1)$?

A) 1) 5

B) 2) 9

C) 3) 3

D) 4) 7

Correct Answer: B) 2) 9

Explanation: The correct answer is **B) 2) 9**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 38

Simplify: $(6m^4n^3) \div (2m^2n)$

A) 1) $3m^2n^2$

B) 2) $4m^2n^2$

C) 3) $3m^6n^4$

D) 4) $3m^8n^3$

Correct Answer: A) 1) $3m^2n^2$

Explanation: The correct answer is **A) 1) $3m^2n^2$**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 1) $3m^2n^2$.

QUESTION 39

The sum of two numbers is 47. If one number is 13 more than the other, what are the numbers?

A) 1) 17 and 30

B) 2) 15 and 32

C) 3) 20 and 27

D) 4) 18 and 29

Correct Answer: A) 1) 17 and 30

Explanation: The correct answer is **A) 1) 17 and 30**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 40

Factor: $x^2 + 9x + 20$

A) 1) (x + 4)(x + 5)

B) 2) (x + 2)(x + 10)

C) 3) (x + 1)(x + 20)

D) 4) (x - 4)(x - 5)

Correct Answer: A) 1) (x + 4)(x + 5)

Explanation: The correct answer is **A) 1) (x + 4)(x + 5)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b^2-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 1) (x + 4)(x + 5).

QUESTION 41

A parallelogram has a base of 14 inches and a height of 9 inches. What is its area?

A) 1) 46 square inches

B) 2) 126 square inches

C) 3) 23 square inches

D) 4) 63 square inches

Correct Answer: B) 2) 126 square inches

Explanation: The correct answer is **B) 2) 126 square inches**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option B maintains consistent grammatical form across all listed or compared elements.

QUESTION 42

What is the surface area of a cube with edge length 6 cm?

A) 1) 216 square cm

B) 2) 144 square cm

C) 3) 36 square cm

D) 4) 180 square cm

Correct Answer: A) 1) 216 square cm

Explanation: The correct answer is **A) 1) 216 square cm**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 1) 216 square cm.

QUESTION 43

A circle has an area of 153.86 square meters. What is its diameter? (Use π ≈ 3.14)

A) 1) 7 meters

B) 2) 14 meters

C) 3) 10 meters

D) 4) 12 meters

Correct Answer: B) 2) 14 meters

Explanation: The correct answer is **B) 2) 14 meters**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 2) 14 meters.

QUESTION 44

In a right triangle, if one angle measures 34°, what is the measure of the other acute angle?

A) 1) 146°

B) 2) 56°

C) 3) 66°

D) 4) 124°

Correct Answer: B) 2) 56°

Explanation: The correct answer is **B) 2) 56°**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 2) 56°.

QUESTION 45

A cone has a radius of 5 inches and a height of 12 inches. What is its volume? (Use π ≈ 3.14)

A) 1) 314 cubic inches

B) 2) 188.4 cubic inches

C) 3) 628 cubic inches

D) 4) 942 cubic inches

Correct Answer: A) 1) 314 cubic inches

Explanation: The correct answer is **A) 1) 314 cubic inches**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 1) 314 cubic inches.

QUESTION 46

The daily high temperatures for one week are: 78°, 81°, 79°, 85°, 79°, 82°, 80°. What is the mean temperature?

A) 1) 79°

B) 2) 80.57°

C) 3) 81°

D) 4) 79.5°

Correct Answer: B) 2) 80.57°

Explanation: The correct answer is **B) 2) 80.57°**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 2) 80.57°.

QUESTION 47

A jar contains 18 red balls, 12 blue balls, and 10 yellow balls. What is the probability of randomly selecting a yellow ball?

A) 1) 1/4

B) 2) 1/3

C) 3) 3/10

D) 4) 9/20

Correct Answer: A) 1) 1/4

Explanation: The correct answer is **A) 1) 1/4**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1) 1/4.

QUESTION 48

The scores on a test are: 85, 92, 78, 92, 88, 92, 95. What is the mode?

A) 1) 88.86

B) 2) 92

C) 3) 90

D) 4) 85

Correct Answer: B) 2) 92

Explanation: The correct answer is **B) 2) 92**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives 2) 92.

QUESTION 49

If 45% of 300 students prefer online learning, how many students prefer online learning?

A) 1) 120

B) 2) 135

C) 3) 150

D) 4) 165

Correct Answer: B) 2) 135

Explanation: The correct answer is **B) 2) 135**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 50

The following data shows hours studied: 3, 5, 7, 5, 9, 4, 6. What is the median?

A) 1) 5.57

B) 2) 5

C) 3) 6

D) 4) 7

Correct Answer: B) 2) 5

Explanation: The correct answer is **B) 2) 5**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of 2) 5.

QUESTION 51

"Standardized testing has long been used to measure student achievement and guide educational decisions. Proponents argue that standardized tests provide objective data for comparing performance and accountability. Critics contend that such tests narrow curriculum, increase student stress, and fail to measure critical thinking or creativity. Write an essay in which you develop a position on the role of standardized testing in education. Support your argument with specific reasoning and examples."

A) Develop a clear position on standardized testing's role in education

B) Focus on: Clear, arguable thesis | Specific supporting evidence | Consideration of multiple viewpoints | Logical organization | Proper grammar and style

C)

D)

Correct Answer: A) Develop a clear position on standardized testing's role in education

Explanation: The correct answer is **A) Develop a clear position on standardized testing's role in education**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields Develop a clear position on standardized testing's role in education.

FULL CRC EXAM

TSIA2 Simulated Exam 14 — 2026

50 Questions — Answer Key with Explanations

QUESTION 1

Read the following passage and answer questions 1-6: The integration of artificial intelligence in classroom settings has sparked considerable debate among educators. While AI-powered tutoring systems can provide personalized learning experiences and immediate feedback, critics argue that excessive reliance on technology may diminish critical thinking skills and human interaction. A 2025 study from Stanford University found that students using adaptive learning platforms improved test scores by 18% compared to traditional instruction, yet showed decreased ability to collaborate on complex problem-solving tasks. The challenge for modern educators lies not in choosing between technology and traditional methods, but in finding the optimal balance that leverages AI's strengths while preserving essential human elements of education. Question 1: What is the primary purpose of this passage?

A) To advocate for complete replacement of teachers with AI systems

B) To present a balanced view of AI integration in education

C) To argue against any use of technology in classrooms

D) To promote a specific AI tutoring product

Correct Answer: B) To present a balanced view of AI integration in education

Explanation: The correct answer is **B) To present a balanced view of AI integration in education**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 2

Question 2: According to the passage, what did the Stanford study reveal?

A) AI systems are superior to human teachers in all aspects

B) Students improved test scores but decreased in collaborative problem-solving

C) Technology has no measurable impact on student learning

D) Traditional instruction is always more effective than AI

Correct Answer: B) Students improved test scores but decreased in collaborative problem-solving

Explanation: The correct answer is **B) Students improved test scores but decreased in collaborative problem-solving**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 3

Question 3: The author's tone can best be described as:

A) Hostile and dismissive

B) Enthusiastic and promotional

C) Balanced and analytical

D) Pessimistic and fearful

Correct Answer: C) Balanced and analytical

Explanation: The correct answer is **C) Balanced and analytical**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'balanced and analytical' as the dominant tone.

QUESTION 4

Question 4: Which statement would the author most likely agree with?

A) Technology should be completely banned from educational settings

B) AI will eventually make human teachers obsolete

C) The best approach combines technology with traditional teaching methods

D) Standardized test scores are the only measure of educational success

Correct Answer: C) The best approach combines technology with traditional teaching methods

Explanation: The correct answer is **C) The best approach combines technology with traditional teaching methods**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'The best approach combines technology with traditional teaching methods', making it the best-supported inference over the other options.

QUESTION 5

Question 5: The word 'diminish' in the passage most nearly means:

A) Enhance

B) Reduce

C) Transform

D) Eliminate

Correct Answer: B) Reduce

Explanation: The correct answer is **B) Reduce**. When determining word meaning from context, look at the surrounding sentences for synonyms, antonyms, or examples that clarify the word's usage. The context in this passage indicates the word means 'reduce', which fits the logical flow of the passage.

QUESTION 6

Question 6: What can be inferred about the author's perspective on educational technology?

A) It should be implemented without consideration of drawbacks

B) It offers both opportunities and challenges that require careful navigation

C) It is a passing trend that will soon disappear

D) It benefits only advanced students

Correct Answer: B) It offers both opportunities and challenges that require careful navigation

Explanation: The correct answer is **B) It offers both opportunities and challenges that require careful navigation**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'It offers both opportunities and challenges that require careful navigation', making it the best-supported inference over the other options.

QUESTION 7

Read the following passage and answer questions 7-12: Coral reefs, often called the rainforests of the sea, support approximately 25% of all marine species despite covering less than 1% of the ocean floor. These intricate ecosystems face unprecedented threats from climate change, with rising ocean temperatures triggering mass bleaching events. When water temperatures exceed normal ranges by just 1-2 degrees Celsius for extended periods, corals expel the symbiotic algae that provide them with nutrients and vibrant colors, leaving behind ghostly white skeletons. The Great Barrier Reef has experienced five mass bleaching events since 1998, with the most severe occurring in 2016 and 2020. Scientists estimate that without significant intervention, 90% of coral reefs could disappear by 2050, devastating marine biodiversity and the 500 million people worldwide who depend on reefs for food and economic livelihood. Question 7: The main idea of this passage is:

A) Coral reefs are beautiful underwater structures

B) Climate change poses a severe threat to coral reef ecosystems

C) The Great Barrier Reef is the world's largest reef system

D) Symbiotic algae are essential to ocean chemistry

Correct Answer: B) Climate change poses a severe threat to coral reef ecosystems

Explanation: The correct answer is **B) Climate change poses a severe threat to coral reef ecosystems**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Climate change poses a severe threat to coral reef ecosystems' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 8

Question 8: According to the passage, what triggers coral bleaching?

A) Pollution from coastal cities

B) Overfishing by commercial vessels

C) Water temperatures rising 1-2 degrees Celsius above normal for extended periods

D) Decreased sunlight reaching the ocean floor

Correct Answer: C) Water temperatures rising 1-2 degrees Celsius above normal for extended periods

Explanation: The correct answer is **C) Water temperatures rising 1-2 degrees Celsius above normal for extended periods**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 9

Question 9: The comparison of coral reefs to rainforests emphasizes:

A) Their similar climate requirements

B) Their high biodiversity despite covering small areas

C) Their identical conservation strategies

D) Their geographical proximity

Correct Answer: B) Their high biodiversity despite covering small areas

Explanation: The correct answer is **B) Their high biodiversity despite covering small areas**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 10

Question 10: Based on the passage, how many mass bleaching events has the Great Barrier Reef experienced since 1998?

A) Two

B) Three

C) Four

D) Five

Correct Answer: D) Five

Explanation: The correct answer is **D) Five**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option D. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 11

Question 11: The phrase 'ghostly white skeletons' is used to describe:

A) Marine animals that inhabit coral reefs

B) Bleached corals that have lost their algae and color

C) Ancient fossilized coral formations

D) Underwater rock formations near reefs

Correct Answer: B) Bleached corals that have lost their algae and color

Explanation: The correct answer is **B) Bleached corals that have lost their algae and color**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 12

Question 12: According to the passage, approximately how many people worldwide depend on coral reefs?

A) 100 million

B) 250 million

C) 500 million

D) 1 billion

Correct Answer: C) 500 million

Explanation: The correct answer is **C) 500 million**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 13

Read the following passage and answer questions 13-17: The old bookstore stood defiant against the encroaching digital age, its weathered wooden sign creaking in the autumn wind. Inside, dust motes danced in shafts of afternoon light filtering through tall windows, illuminating rows of forgotten volumes. Elena ran her fingers along the spines, feeling the texture of decades-old leather and cloth bindings. Each book whispered stories of previous owners—pressed flowers marking favorite passages, handwritten notes in margins, library stamps from institutions long closed. In this sanctuary of printed words, time moved differently, measured not in seconds but in chapters, not in productivity but in contemplation. Question 13: The mood of this passage is best described as:

A) Anxious and uncertain

B) Nostalgic and contemplative

C) Exciting and adventurous

D) Depressing and hopeless

Correct Answer: B) Nostalgic and contemplative

Explanation: The correct answer is **B) Nostalgic and contemplative**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'nostalgic and contemplative' as the dominant tone.

QUESTION 14

Question 14: The phrase 'stood defiant against the encroaching digital age' suggests the bookstore:

A) Uses modern technology extensively

B) Is outdated but persists despite technological change

C) Actively protests against digital books

D) Is more successful than online retailers

Correct Answer: B) Is outdated but persists despite technological change

Explanation: The correct answer is **B) Is outdated but persists despite technological change**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 15

Question 15: The author uses sensory details primarily to:

A) Create a vivid, immersive atmosphere

B) Criticize modern reading habits

C) Describe Elena's physical appearance

D) Explain the history of bookstores

Correct Answer: A) Create a vivid, immersive atmosphere

Explanation: The correct answer is **A) Create a vivid, immersive atmosphere**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 16

Question 16: What do the 'pressed flowers' and 'handwritten notes' reveal?

A) The bookstore's poor maintenance practices

B) Elena's personal reading preferences

C) Evidence of previous readers' connections to the books

D) The high resale value of the volumes

Correct Answer: C) Evidence of previous readers' connections to the books

Explanation: The correct answer is **C) Evidence of previous readers' connections to the books**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 17

Question 17: The contrast between 'seconds' and 'chapters' emphasizes:

A) The bookstore's inefficient business model

B) Elena's poor time management

C) The different pace and quality of experience in the bookstore

D) The exact duration of Elena's visit

Correct Answer: C) The different pace and quality of experience in the bookstore

Explanation: The correct answer is **C) The different pace and quality of experience in the bookstore**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 18

Question 18: Which sentence is grammatically correct?

A) Neither the students nor the teacher were aware of the schedule change.

B) Neither the students nor the teacher was aware of the schedule change.

C) Neither the students nor the teacher are aware of the schedule change.

D) Neither the students nor the teacher been aware of the schedule change.

Correct Answer: B) Neither the students nor the teacher was aware of the schedule change.

Explanation: The correct answer is **B) Neither the students nor the teacher was aware of the schedule change.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

Question 19: Choose the sentence with correct comma usage:

A) After finishing her presentation Maria received enthusiastic applause from the audience.

B) After finishing her presentation, Maria received enthusiastic applause from the audience.

C) After finishing her presentation Maria, received enthusiastic applause from the audience.

D) After, finishing her presentation Maria received enthusiastic applause from the audience.

Correct Answer: B) After finishing her presentation, Maria received enthusiastic applause from the audience.

Explanation: The correct answer is **B) After finishing her presentation, Maria received enthusiastic applause from the audience.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option B as the only correctly punctuated version.

QUESTION 20

Question 20: Which revision best improves this sentence? 'The research team analyzed data, conducted interviews, and were documenting their findings.'

A) The research team analyzed data, conducted interviews, and documented their findings.

B) The research team analyzed data, conducting interviews, and documented their findings.

C) The research team analyzing data, conducted interviews, and documented their findings.

D) The research team analyzed data, conducted interviews, and documenting their findings.

Correct Answer: A) The research team analyzed data, conducted interviews, and documented their findings.

Explanation: The correct answer is **A) The research team analyzed data, conducted interviews, and documented their findings.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 21

Question 21: Identify the sentence with correct pronoun usage:

A) Between you and I, this project needs more resources.

B) Between you and me, this project needs more resources.

C) Between yourself and I, this project needs more resources.

D) Between you and myself, this project needs more resources.

Correct Answer: B) Between you and me, this project needs more resources.

Explanation: The correct answer is **B) Between you and me, this project needs more resources.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option B uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 22

Question 22: Which sentence demonstrates proper use of a semicolon?

A) The conference starts at 9 AM; however we should arrive early.

B) The conference starts at 9 AM, however; we should arrive early.

C) The conference starts at 9 AM; however, we should arrive early.

D) The conference starts at 9 AM however; we should arrive early.

Correct Answer: C) The conference starts at 9 AM; however, we should arrive early.

Explanation: The correct answer is **C) The conference starts at 9 AM; however, we should arrive early.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

QUESTION 23

Question 23: Select the sentence with correct subject-verb agreement:

A) The collection of rare manuscripts are housed in the library's special archives.

B) The collection of rare manuscripts is housed in the library's special archives.

C) The collection of rare manuscripts were housed in the library's special archives.

D) The collection of rare manuscripts have been housed in the library's special archives.

Correct Answer: B) The collection of rare manuscripts is housed in the library's special archives.

Explanation: The correct answer is **B) The collection of rare manuscripts is housed in the library's special archives.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option B is grammatically correct.

QUESTION 24

Question 24: Which revision eliminates the dangling modifier? 'Walking through the museum, the ancient artifacts fascinated us.'

A) Walking through the museum, we were fascinated by the ancient artifacts.

B) The ancient artifacts, walking through the museum, fascinated us.

C) Walking through the museum fascinated us by the ancient artifacts.

D) The ancient artifacts fascinated us walking through the museum.

Correct Answer: A) Walking through the museum, we were fascinated by the ancient artifacts.

Explanation: The correct answer is **A) Walking through the museum, we were fascinated by the ancient artifacts.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 25

Question 25: Choose the sentence with correct use of apostrophes:

A) The companys' new policy affects all it's employees.

B) The company's new policy affects all its employees.

C) The companies new policy affects all its' employees.

D) The companies' new policy affects all it's employees.

Correct Answer: B) The company's new policy affects all its employees.

Explanation: The correct answer is **B) The company's new policy affects all its employees.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option B as the only correctly punctuated version.

QUESTION 26

Question 26: Which sentence correctly uses a colon?

A) The recipe requires: flour, sugar, eggs, and vanilla extract.

B) The recipe requires three things: flour, sugar, and eggs.

C) The recipe: requires flour, sugar, eggs, and vanilla extract.

D) The recipe requires flour: sugar, eggs, and vanilla extract.

Correct Answer: B) The recipe requires three things: flour, sugar, and eggs.

Explanation: The correct answer is **B) The recipe requires three things: flour, sugar, and eggs.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option B as the only correctly punctuated version.

QUESTION 27

Question 27: Identify the most concise revision: 'Due to the fact that it was raining, the outdoor concert was cancelled.'

A) Due to the fact that it was raining, they cancelled the outdoor concert.

B) Because of the rain, the outdoor concert was cancelled.

C) On account of the fact that it was raining, the outdoor concert was cancelled.

D) The outdoor concert was cancelled due to the fact that it was raining.

Correct Answer: B) Because of the rain, the outdoor concert was cancelled.

Explanation: The correct answer is **B) Because of the rain, the outdoor concert was cancelled.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 28

Question 28: Which sentence maintains consistent verb tense?

A) She studied for three hours and will take a break when her friend called.

B) She studied for three hours and took a break when her friend called.

C) She studies for three hours and took a break when her friend called.

D) She studied for three hours and takes a break when her friend calls.

Correct Answer: B) She studied for three hours and took a break when her friend called.

Explanation: The correct answer is **B) She studied for three hours and took a break when her friend called.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 29

Question 29: Select the sentence with correct parallel structure:

A) The internship offers experience in research, to develop skills, and networking opportunities.

B) The internship offers experience in research, skill development, and networking opportunities.

C) The internship offers researching experience, developing skills, and networking opportunities.

D) The internship offers experience in research, developing skills, and to network.

Correct Answer: B) The internship offers experience in research, skill development, and networking opportunities.

Explanation: The correct answer is **B) The internship offers experience in research, skill development, and networking opportunities.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option B maintains consistent grammatical form across all listed or compared elements.

QUESTION 30

Question 30: Which sentence correctly uses 'who' or 'whom'?

A) The candidate who we interviewed yesterday had impressive qualifications.

B) The candidate whom we interviewed yesterday had impressive qualifications.

C) The candidate which we interviewed yesterday had impressive qualifications.

D) The candidate that whom we interviewed yesterday had impressive qualifications.

Correct Answer: B) The candidate whom we interviewed yesterday had impressive qualifications.

Explanation: The correct answer is **B) The candidate whom we interviewed yesterday had impressive qualifications.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 31

Question 31: A solar panel installation costs $18,500 and saves $145 per month on electricity bills. Approximately how many months will it take to recover the initial investment?

A) 115 months

B) 128 months

C) 142 months

D) 156 months

Correct Answer: B) 128 months

Explanation: The correct answer is **B) 128 months**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 32

Question 32: A recipe that serves 6 people requires 2.5 cups of flour. How many cups of flour are needed to serve 15 people?

A) 5.5 cups

B) 6.0 cups

C) 6.25 cups

D) 7.5 cups

Correct Answer: C) 6.25 cups

Explanation: The correct answer is **C) 6.25 cups**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 33

Question 33: If 3/8 of a budget is allocated to salaries and 1/4 is allocated to equipment, what fraction of the budget remains for other expenses?

A) 3/8

B) 1/3

C) 5/12

D) 7/12

Correct Answer: A) 3/8

Explanation: The correct answer is **A) 3/8**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 34

Question 34: A store offers a 30% discount on an item originally priced at $240. If sales tax is 8%, what is the final price?

A) $168.00

B) $176.40

C) $181.44

D) $194.40

Correct Answer: C) $181.44

Explanation: The correct answer is **C) $181.44**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 35

Question 35: A water tank loses 12% of its volume to evaporation each week. If the tank initially holds 850 gallons, approximately how many gallons remain after 2 weeks?

A) 658 gallons

B) 682 gallons

C) 726 gallons

D) 748 gallons

Correct Answer: A) 658 gallons

Explanation: The correct answer is **A) 658 gallons**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 658 gallons.

QUESTION 36

Question 36: Solve for x: 3(2x - 5) = 4x + 7

A) x = 2

B) x = 4

C) x = 5.5

D) x = 11

Correct Answer: D) x = 11

Explanation: The correct answer is **D) x = 11**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = 11.

QUESTION 37

Question 37: If $f(x) = 2x^2 - 3x + 1$, what is f(-2)?

A) 3

B) 7

C) 11

D) 15

Correct Answer: D) 15

Explanation: The correct answer is **D) 15**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 15.

QUESTION 38

Question 38: Which inequality represents 'The sum of twice a number and 7 is at most 25'?

A) 2x + 7 < 25

B) 2x + 7 ≤ 25

C) 2x + 7 > 25

D) 2x + 7 ≥ 25

Correct Answer: B) 2x + 7 ≤ 25

Explanation: The correct answer is **B) 2x + 7 ≤ 25**. Solving inequalities follows the same steps as equations, with one critical difference: multiplying or dividing by a negative number reverses the inequality sign. Isolating the variable in this inequality yields the solution set 2x + 7 ≤ 25.

QUESTION 39

Question 39: The expression (x + 4)(x - 9) is equivalent to:

A) x^2 - 5x - 36

B) x^2 + 5x - 36

C) x^2 - 13x - 36

D) x^2 - 5x + 36

Correct Answer: A) x^2 - 5x - 36

Explanation: The correct answer is **A) x^2 - 5x - 36**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to x^2 - 5x - 36.

QUESTION 40

Question 40: A line passes through points (2, 5) and (6, 13). What is the slope of this line?

A) 1/2

B) 2

C) 4

D) 8

Correct Answer: B) 2

Explanation: The correct answer is **B) 2**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option B.

QUESTION 41

Question 41: A rectangular garden has a length of 24 feet and a width of 18 feet. What is the length of the diagonal?

A) 28 feet

B) 30 feet

C) 32 feet

D) 36 feet

Correct Answer: B) 30 feet

Explanation: The correct answer is **B) 30 feet**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 42

Question 42: A cylindrical water tank has a radius of 5 meters and a height of 12 meters. What is its volume? (Use π ≈ 3.14)

A) 942 cubic meters

B) 1,884 cubic meters

C) 2,355 cubic meters

D) 3,768 cubic meters

Correct Answer: A) 942 cubic meters

Explanation: The correct answer is **A) 942 cubic meters**. Volume formulas: rectangular prism = l×w×h; cylinder = πr²h; cone = ⅓πr²h; sphere = (4/3)πr³. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 942 cubic meters.

QUESTION 43

Question 43: In a right triangle, one acute angle measures 35°. What is the measure of the other acute angle?

A) 45°

B) 55°

C) 65°

D) 145°

Correct Answer: B) 55°

Explanation: The correct answer is **B) 55°**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 55°.

QUESTION 44

Question 44: A circle has a circumference of 62.8 centimeters. What is its radius? (Use π ≈ 3.14)

A) 8 cm

B) 10 cm

C) 15 cm

D) 20 cm

Correct Answer: B) 10 cm

Explanation: The correct answer is **B) 10 cm**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 10 cm.

QUESTION 45

Question 45: Two similar triangles have corresponding sides in the ratio 3:5. If the smaller triangle has a perimeter of 36 cm, what is the perimeter of the larger triangle?

A) 48 cm

B) 54 cm

C) 60 cm

D) 72 cm

Correct Answer: C) 60 cm

Explanation: The correct answer is **C) 60 cm**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 60 cm.

QUESTION 46

Question 46: The following data shows test scores: 78, 85, 92, 85, 88, 90, 85. What is the mode?

A) 78

B) 85

C) 88

D) 90

Correct Answer: B) 85

Explanation: The correct answer is **B) 85**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives 85.

QUESTION 47

Question 47: A survey found that 240 out of 800 students prefer online learning. What percentage is this?

A) 25%

B) 30%

C) 33%

D) 40%

Correct Answer: B) 30%

Explanation: The correct answer is **B) 30%**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields 30%.

QUESTION 48

Question 48: The mean of five numbers is 64. Four of the numbers are 58, 62, 70, and 72. What is the fifth number?

A) 52

B) 58

C) 60

D) 68

Correct Answer: B) 58

Explanation: The correct answer is **B) 58**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 58.

QUESTION 49

Question 49: A bag contains 5 red marbles, 8 blue marbles, and 7 green marbles. What is the probability of randomly selecting a blue marble?

A) 1/4

B) 2/5

C) 7/20

D) 3/5

Correct Answer: B) 2/5

Explanation: The correct answer is **B) 2/5**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 2/5.

QUESTION 50

Question 50: In a scatter plot showing hours studied vs. test scores, the correlation coefficient is r = 0.85. This indicates:

A) A weak negative correlation

B) No correlation

C) A strong positive correlation

D) A perfect negative correlation

Correct Answer: C) A strong positive correlation

Explanation: The correct answer is **C) A strong positive correlation**. Scatter plots show the relationship between two variables. A positive correlation means both increase together; a negative correlation means one increases as the other decreases; no correlation means no discernible pattern. Examining the trend in this scatter plot indicates A strong positive correlation.

FULL CRC EXAM

TSIA2 Simulated Exam 15 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

The James Webb Space Telescope, launched in December 2021, represents humanity's most ambitious attempt to peer into the universe's distant past. Unlike its predecessor Hubble, Webb operates primarily in infrared wavelengths, allowing it to detect light from the first galaxies formed over 13 billion years ago. The telescope's revolutionary design includes a tennis-court-sized sunshield that keeps instruments at -223°C, essential for detecting faint heat signatures from ancient celestial objects. Early observations have already challenged existing theories about galaxy formation, revealing surprisingly mature galaxies existing merely 300 million years after the Big Bang. These discoveries suggest that our understanding of cosmic evolution may require substantial revision, demonstrating that even well-established scientific models must remain open to empirical challenge. Question 1: The primary focus of this passage is:

A) 1) The technical specifications of telescope sunshields

B) 2) Comparing Hubble and Webb telescopes

C) 3) Webb telescope's capabilities and early discoveries

D) 4) The history of space exploration

Correct Answer: C) 3) Webb telescope's capabilities and early discoveries

Explanation: The correct answer is **C) 3) Webb telescope's capabilities and early discoveries**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '3) Webb telescope's capabilities and early discoveries', making it the best-supported inference over the other options.

QUESTION 2

Question 2: According to the passage, what makes Webb different from Hubble?

A) 1) Webb is larger in physical size

B) 2) Webb operates primarily in infrared wavelengths

C) 3) Webb orbits closer to Earth

D) 4) Webb was more expensive to build

Correct Answer: B) 2) Webb operates primarily in infrared wavelengths

Explanation: The correct answer is **B) 2) Webb operates primarily in infrared wavelengths**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 3

Question 3: The sunshield serves what purpose?

A) 1) Protecting the telescope from space debris

B) 2) Generating power for the instruments

C) 3) Keeping instruments extremely cold to detect faint heat signatures

D) 4) Communicating with Earth-based stations

Correct Answer: C) 3) Keeping instruments extremely cold to detect faint heat signatures

Explanation: The correct answer is **C) 3) Keeping instruments extremely cold to detect faint heat signatures**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 4

Question 4: What have early Webb observations revealed about galaxies?

A) 1) They are smaller than previously thought

B) 2) Surprisingly mature galaxies existed earlier than expected after the Big Bang

C) 3) Galaxies no longer form in the modern universe

D) 4) All galaxies contain identical chemical compositions

Correct Answer: B) 2) Surprisingly mature galaxies existed earlier than expected after the Big Bang

Explanation: The correct answer is **B) 2) Surprisingly mature galaxies existed earlier than expected after the Big Bang**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 5

Question 5: The passage suggests that scientific theories should be:

A) 1) Accepted without question once established

B) 2) Open to revision based on new empirical evidence

C) 3) Based solely on mathematical models

D) 4) Rejected whenever new data emerges

Correct Answer: B) 2) Open to revision based on new empirical evidence

Explanation: The correct answer is **B) 2) Open to revision based on new empirical evidence**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '2) Open to revision based on new empirical evidence', making it the best-supported inference over the other options.

QUESTION 6

Question 6: The word 'faint' in this context most nearly means:

A) 1) Weak or barely detectable

B) 2) Colorless

C) 3) Distant

D) 4) Ancient

Correct Answer: A) 1) Weak or barely detectable

Explanation: The correct answer is **A) 1) Weak or barely detectable**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 1) Weak or barely detectable.

QUESTION 7

The concept of comparative advantage, introduced by economist David Ricardo in 1817, remains fundamental to understanding international trade. Ricardo demonstrated that even when one nation can produce all goods more efficiently than another, both nations benefit from trade if each specializes in producing goods where they have the lowest opportunity cost. This principle challenges the intuitive notion that less efficient economies cannot compete globally. For instance, if Country A requires 1 hour to produce either a computer or 10 tons of wheat, while Country B requires 2 hours for a computer or 3 hours for 10 tons of wheat, Country A has absolute advantage in both goods. However, Country A's opportunity cost for computers is 10 tons of wheat, while Country B's opportunity cost is only 15 tons of wheat. Consequently, Country B should specialize in computers despite being absolutely less efficient, because it sacrifices fewer wheat units per computer produced. This mathematical reality underpins modern global trade networks and explains why developed nations import goods they could theoretically produce domestically. Question 7: The main purpose of this passage is to:

A) 1) Criticize modern global trade practices

B) 2) Explain the principle of comparative advantage in international trade

C) 3) Argue for complete economic self-sufficiency

D) 4) Describe David Ricardo's biography

Correct Answer: B) 2) Explain the principle of comparative advantage in international trade

Explanation: The correct answer is **B) 2) Explain the principle of comparative advantage in international trade**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 8

Question 8: According to the passage, comparative advantage is based on:

A) 1) Total production capacity

B) 2) Geographic proximity to markets

C) 3) Opportunity cost of production

D) 4) Available natural resources

Correct Answer: C) 3) Opportunity cost of production

Explanation: The correct answer is **C) 3) Opportunity cost of production**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 9

Question 9: In the example, Country A has absolute advantage because:

A) 1) It has lower opportunity costs for both goods

B) 2) It can produce both goods more quickly than Country B

C) 3) It has a larger economy than Country B

D) 4) It produces higher quality products

Correct Answer: B) 2) It can produce both goods more quickly than Country B

Explanation: The correct answer is **B) 2) It can produce both goods more quickly than Country B**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 10

Question 10: Why should Country B specialize in computers according to the passage?

A) 1) Country B produces computers faster than Country A

B) 2) Country B has lower opportunity cost for computer production

C) 3) Country B cannot produce wheat efficiently

D) 4) Country A refuses to trade computers

Correct Answer: B) 2) Country B has lower opportunity cost for computer production

Explanation: The correct answer is **B) 2) Country B has lower opportunity cost for computer production**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 11

Question 11: The passage suggests that comparative advantage:

A) 1) Only benefits the more efficient nation

B) 2) Requires countries to have equal production capabilities

C) 3) Explains why nations trade even when one is more efficient at everything

D) 4) Has been disproven by modern economic data

Correct Answer: C) 3) Explains why nations trade even when one is more efficient at everything

Explanation: The correct answer is **C) 3) Explains why nations trade even when one is more efficient at everything**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '3) Explains why nations trade even when one is more efficient at everything', making it the best-supported inference over the other options.

QUESTION 12

Question 12: Based on the example, what is Country A's opportunity cost for producing 10 tons of wheat?

A) 1) 1 computer

B) 2) 2 computers

C) 3) 10 computers

D) 4) Cannot be determined

Correct Answer: A) 1) 1 computer

Explanation: The correct answer is **A) 1) 1 computer**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 13

The lighthouse keeper's daughter learned to read the ocean's moods before she could decipher words on a page. She understood that gray-green waters meant approaching storms, while deep sapphire signaled calm, fishermen-friendly days. Her father, weathered by thirty years of solitude and salt spray, spoke more to the gulls than to her, his vocabulary reduced to maritime warnings and terse nods. Yet in his meticulous maintenance of the beacon—polishing the Fresnel lens until it gleamed like a jewel, calculating oil levels with mathematical precision—she recognized a poetry more eloquent than sonnets. Each night, as the beam swept across the darkness in its eternal rotation, she imagined it as a lighthouse's heartbeat, a promise to distant sailors that someone was watching, someone cared whether they found their way home. Question 13: The passage primarily emphasizes:

A) 1) The technical operation of lighthouses

B) 2) The relationship between the daughter and her father through shared purpose

C) 3) The dangers of maritime navigation

D) 4) The economic importance of lighthouses

Correct Answer: B) 2) The relationship between the daughter and her father through shared purpose

Explanation: The correct answer is **B) 2) The relationship between the daughter and her father through shared purpose**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to '2) the relationship between the daughter and her father through shared purpose' as the dominant tone.

QUESTION 14

Question 14: The phrase 'vocabulary reduced to maritime warnings and terse nods' suggests the father:

A) 1) Is illiterate and uneducated

B) 2) Dislikes his daughter

C) 3) Communicates minimally but purposefully

D) 4) Suffers from a speech impediment

Correct Answer: C) 3) Communicates minimally but purposefully

Explanation: The correct answer is **C) 3) Communicates minimally but purposefully**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 15

Question 15: The daughter recognizes 'poetry' in her father's work, meaning she sees:

A) 1) That he writes verse during his free time

B) 2) Beauty and meaning in his careful, dedicated maintenance

C) 3) That he should have been a professional poet

D) 4) Evidence of his formal education

Correct Answer: B) 2) Beauty and meaning in his careful, dedicated maintenance

Explanation: The correct answer is **B) 2) Beauty and meaning in his careful, dedicated maintenance**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 2) Beauty and meaning in his careful, dedicated maintenance.

QUESTION 16

Question 16: The image of the lighthouse beam as a 'heartbeat' conveys:

A) 1) The mechanical rhythm of the rotation mechanism

B) 2) The daughter's anxiety about her father's health

C) 3) The steady, life-sustaining purpose of the lighthouse

D) 4) A need for equipment repairs

Correct Answer: C) 3) The steady, life-sustaining purpose of the lighthouse

Explanation: The correct answer is **C) 3) The steady, life-sustaining purpose of the lighthouse**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 17

Question 17: The overall tone of the passage is:

A) 1) Critical and judgmental

B) 2) Humorous and lighthearted

C) 3) Reflective and appreciative

D) 4) Anxious and fearful

Correct Answer: C) 3) Reflective and appreciative

Explanation: The correct answer is **C) 3) Reflective and appreciative**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to '3) reflective and appreciative' as the dominant tone.

QUESTION 18

Question 18: Which sentence correctly uses a modifier?

A) 1) Having studied all night, the exam was easy for Marcus.

B) 2) Having studied all night, Marcus found the exam easy.

C) 3) The exam was easy for Marcus having studied all night.

D) 4) Having studied all night was easy for Marcus on the exam.

Correct Answer: B) 2) Having studied all night, Marcus found the exam easy.

Explanation: The correct answer is **B) 2) Having studied all night, Marcus found the exam easy.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

Question 19: Choose the sentence with correct punctuation:

A) 1) The museum features ancient artifacts, interactive exhibits, and educational programs; it attracts thousands of visitors annually.

B) 2) The museum features ancient artifacts, interactive exhibits, and educational programs, it attracts thousands of visitors annually.

C) 3) The museum features ancient artifacts interactive exhibits and educational programs; it attracts thousands of visitors annually.

D) 4) The museum features: ancient artifacts, interactive exhibits, and educational programs, it attracts thousands of visitors annually.

Correct Answer: A) 1) The museum features ancient artifacts, interactive exhibits, and educational programs; it attracts thousands of visitors annually.

Explanation: The correct answer is **A) 1) The museum features ancient artifacts, interactive exhibits, and educational programs; it attracts thousands of visitors annually.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 20

Question 20: Identify the sentence with correct subject-verb agreement:

A) 1) The team of scientists are conducting groundbreaking research.

B) 2) The team of scientists is conducting groundbreaking research.

C) 3) The team of scientists were conducting groundbreaking research.

D) 4) The team of scientists have been conducting groundbreaking research.

Correct Answer: B) 2) The team of scientists is conducting groundbreaking research.

Explanation: The correct answer is **B) 2) The team of scientists is conducting groundbreaking research.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option B is grammatically correct.

QUESTION 21

Question 21: Which revision best eliminates wordiness? 'In spite of the fact that she was tired, she continued working.'

A) 1) In spite of being tired, she continued working.

B) 2) Despite the fact that she was tired, she continued working.

C) 3) Although she was tired, she continued working.

D) 4) She continued working in spite of the fact that she was tired.

Correct Answer: C) 3) Although she was tired, she continued working.

Explanation: The correct answer is **C) 3) Although she was tired, she continued working.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 22

Question 22: Select the sentence with correct pronoun-antecedent agreement:

A) 1) Each of the students must submit their final project by Friday.

B) 2) Each of the students must submit his or her final project by Friday.

C) 3) Each of the students must submit our final project by Friday.

D) 4) Each of the students must submit your final project by Friday.

Correct Answer: B) 2) Each of the students must submit his or her final project by Friday.

Explanation: The correct answer is **B) 2) Each of the students must submit his or her final project by Friday.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option B is grammatically correct.

QUESTION 23

Question 23: Which sentence demonstrates correct use of commas with nonessential elements?

A) 1) My professor Dr. Chen who studied at Oxford teaches advanced physics.

B) 2) My professor Dr. Chen, who studied at Oxford teaches advanced physics.

C) 3) My professor Dr. Chen, who studied at Oxford, teaches advanced physics.

D) 4) My professor, Dr. Chen who studied at Oxford, teaches advanced physics.

Correct Answer: C) 3) My professor Dr. Chen, who studied at Oxford, teaches advanced physics.

Explanation: The correct answer is **C) 3) My professor Dr. Chen, who studied at Oxford, teaches advanced physics.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

QUESTION 24

Question 24: Choose the sentence with correct parallel structure:

A) 1) The workshop focused on improving communication, how to resolve conflicts, and team building.

B) 2) The workshop focused on improving communication, resolving conflicts, and building teams.

C) 3) The workshop focused on communication improvement, conflict resolution, and to build teams.

D) 4) The workshop focused on improving communication, to resolve conflicts, and team building.

Correct Answer: B) 2) The workshop focused on improving communication, resolving conflicts, and building teams.

Explanation: The correct answer is **B) 2) The workshop focused on improving communication, resolving conflicts, and building teams.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option B maintains consistent grammatical form across all listed or compared elements.

QUESTION 25

Question 25: Identify the correct use of 'affect' or 'effect':

A) 1) The new policy will have a significant affect on student enrollment.

B) 2) The new policy will have a significant effect on student enrollment.

C) 3) The new policy will significantly affect on student enrollment.

D) 4) The new policy will significantly effect on student enrollment.

Correct Answer: B) 2) The new policy will have a significant effect on student enrollment.

Explanation: The correct answer is **B) 2) The new policy will have a significant effect on student enrollment.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 26

Question 26: Which sentence correctly uses quotation marks?

A) 1) The article titled "Climate Change Solutions" appears in today's newspaper.

B) 2) The article titled Climate Change Solutions appears in today's newspaper.

C) 3) The article titled, "Climate Change Solutions," appears in today's newspaper.

D) 4) The article titled "Climate Change Solutions," appears in today's newspaper.

Correct Answer: A) 1) The article titled "Climate Change Solutions" appears in today's newspaper.

Explanation: The correct answer is **A) 1) The article titled "Climate Change Solutions" appears in today's newspaper.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 27

Question 27: Select the sentence with proper capitalization:

A) 1) The Senator addressed Congress about Healthcare Reform.

B) 2) The senator addressed congress about healthcare reform.

C) 3) The Senator addressed congress about healthcare reform.

D) 4) The senator addressed Congress about healthcare reform.

Correct Answer: D) 4) The senator addressed Congress about healthcare reform.

Explanation: The correct answer is **D) 4) The senator addressed Congress about healthcare reform.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 28

Question 28: Which revision corrects the run-on sentence? 'The library closes at midnight students should plan accordingly.'

A) 1) The library closes at midnight, students should plan accordingly.

B) 2) The library closes at midnight; students should plan accordingly.

C) 3) The library closes at midnight students, should plan accordingly.

D) 4) The library closes at midnight and students should plan accordingly.

Correct Answer: B) 2) The library closes at midnight; students should plan accordingly.

Explanation: The correct answer is **B) 2) The library closes at midnight; students should plan accordingly.**. A sentence fragment lacks a subject, a predicate, or both; a run-on joins independent clauses without proper punctuation or a coordinating conjunction. Option B is the only choice that forms a grammatically complete, correctly punctuated sentence.

QUESTION 29

Question 29: Choose the sentence that correctly uses an adverb:

A) 1) She performed exceptional well in the competition.

B) 2) She performed exceptionally good in the competition.

C) 3) She performed exceptional good in the competition.

D) 4) She performed exceptionally well in the competition.

Correct Answer: D) 4) She performed exceptionally well in the competition.

Explanation: The correct answer is **D) 4) She performed exceptionally well in the competition.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 30

Question 30: Identify the sentence with correct word choice:

A) 1) The committee's recommendation will be implement next semester.

B) 2) The committee's recommendation will be implementation next semester.

C) 3) The committee's recommendation will be implemented next semester.

D) 4) The committee's recommendation will be implementing next semester.

Correct Answer: C) 3) The committee's recommendation will be implemented next semester.

Explanation: The correct answer is **C) 3) The committee's recommendation will be implemented next semester.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 31

Question 31: A cryptocurrency investment of $4,500 increases in value by 35% in the first year and then decreases by 20% in the second year. What is the final value?

A) 1) $4,500

B) 2) $4,725

C) 3) $4,860

D) 4) $5,175

Correct Answer: C) 3) $4,860

Explanation: The correct answer is **C) 3) $4,860**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 32

Question 32: A factory produces 1,680 units in a 12-hour shift. If production is maintained at a constant rate, how many units are produced in 5 hours?

A) 1) 650 units

B) 2) 700 units

C) 3) 750 units

D) 4) 800 units

Correct Answer: B) 2) 700 units

Explanation: The correct answer is **B) 2) 700 units**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 2) 700 units.

QUESTION 33

Question 33: If 5/6 of a manuscript is completed and represents 420 pages, how many total pages is the manuscript?

A) 1) 480 pages

B) 2) 504 pages

C) 3) 525 pages

D) 4) 540 pages

Correct Answer: B) 2) 504 pages

Explanation: The correct answer is **B) 2) 504 pages**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 34

Question 34: A gym membership costs $65 per month with a one-time registration fee of $120. What is the total cost for 18 months?

A) 1) $1,170

B) 2) $1,290

C) 3) $1,350

D) 4) $1,410

Correct Answer: B) 2) $1,290

Explanation: The correct answer is **B) 2) $1,290**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives 2) $1,290.

QUESTION 35

Question 35: A car's value depreciates by 18% each year. If the car is initially worth $28,000, what will it be worth after 3 years?

A) 1) $15,428

B) 2) $16,820

C) 3) $17,384

D) 4) $18,592

Correct Answer: C) 3) $17,384

Explanation: The correct answer is **C) 3) $17,384**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 36

Question 36: Solve for y: 5y - 8 = 2y + 19

A) 1) y = 7

B) 2) y = 9

C) 3) y = 11

D) 4) y = 13

Correct Answer: B) 2) y = 9

Explanation: The correct answer is **B) 2) y = 9**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 2) y = 9.

QUESTION 37

Question 37: If $g(x) = -3x^2 + 4x - 2$, what is g(3)?

A) 1) -29

B) 2) -17

C) 3) -11

D) 4) -5

Correct Answer: B) 2) -17

Explanation: The correct answer is **B) 2) -17**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 2) -17.

QUESTION 38

Question 38: Which expression is equivalent to (2x - 5)(3x + 4)?

A) 1) $6x^2 - 7x - 20$

B) 2) $6x^2 + 7x - 20$

C) 3) $6x^2 - 23x - 20$

D) 4) $6x^2 - 7x + 20$

Correct Answer: A) 1) $6x^2 - 7x - 20$

Explanation: The correct answer is **A) 1) $6x^2 - 7x - 20$**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 1) $6x^2 - 7x - 20$.

QUESTION 39

Question 39: A line has a slope of -2/3 and passes through the point (6, 4). What is the y-intercept?

A) 1) 8

B) 2) 6

C) 3) 4

D) 4) 2

Correct Answer: A) 1) 8

Explanation: The correct answer is **A) 1) 8**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option A.

QUESTION 40

Question 40: Solve: |2x - 6| = 14

A) 1) x = -4 or x = 10

B) 2) x = -10 or x = 4

C) 3) x = 4 or x = 10

D) 4) x = -4 or x = -10

Correct Answer: A) 1) x = -4 or x = 10

Explanation: The correct answer is **A) 1) x = -4 or x = 10**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 1) x = -4 or x = 10.

QUESTION 41

Question 41: A trapezoid has bases of 14 cm and 22 cm and a height of 8 cm. What is its area?

A) 1) 128 cm²

B) 2) 144 cm²

C) 3) 160 cm²

D) 4) 176 cm²

Correct Answer: B) 2) 144 cm²

Explanation: The correct answer is **B) 2) 144 cm²**. This geometry problem requires identifying the correct formula or theorem and substituting the given measurements. Applying the relevant geometric principle — area, angle relationships, or similarity — step-by-step leads to 2) 144 cm².

QUESTION 42

Question 42: A sphere has a radius of 6 inches. What is its volume? (Use $\pi \approx 3.14$ and $V = 4/3\pi r^3$)

A) 1) 452.16 cubic inches

B) 2) 678.24 cubic inches

C) 3) 904.32 cubic inches

D) 4) 1,130.40 cubic inches

Correct Answer: C) 3) 904.32 cubic inches

Explanation: The correct answer is **C) 3) 904.32 cubic inches**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 3) 904.32 cubic inches.

QUESTION 43

Question 43: Two complementary angles have measures in the ratio 2:3. What is the measure of the larger angle?

A) 1) 36°

B) 2) 45°

C) 3) 54°

D) 4) 72°

Correct Answer: C) 3) 54°

Explanation: The correct answer is **C) 3) 54°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 3) 54°.

QUESTION 44

Question 44: A right triangle has legs measuring 9 meters and 12 meters. What is the length of the hypotenuse?

A) 1) 13 meters

B) 2) 15 meters

C) 3) 17 meters

D) 4) 21 meters

Correct Answer: B) 2) 15 meters

Explanation: The correct answer is **B) 2) 15 meters**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 2) 15 meters.

QUESTION 45

Question 45: A rectangular prism has dimensions 7 cm × 5 cm × 4 cm. What is its surface area?

A) 1) 140 cm^2

B) 2) 166 cm^2

C) 3) 180 cm^2

D) 4) 210 cm^2

Correct Answer: B) 2) 166 cm^2

Explanation: The correct answer is **B) 2) 166 cm^2**. Volume formulas: rectangular prism = $l \times w \times h$; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 2) 166 cm^2.

QUESTION 46

Question 46: The median of the dataset {23, 45, 67, 34, 56, 78, 90} is:

A) 1) 45

B) 2) 56

C) 3) 67

D) 4) 78

Correct Answer: B) 2) 56

Explanation: The correct answer is **B) 2) 56**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of 2) 56.

QUESTION 47

Question 47: In a class of 35 students, 21 are female. What is the ratio of female to male students?

A) 1) 3:2

B) 2) 5:3

C) 3) 3:5

D) 4) 2:3

Correct Answer: A) 1) 3:2

Explanation: The correct answer is **A) 1) 3:2**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives 1) 3:2.

QUESTION 48

Question 48: The range of the dataset {15, 28, 42, 19, 37, 51, 23} is:

A) 1) 28

B) 2) 32

C) 3) 36

D) 4) 42

Correct Answer: C) 3) 36

Explanation: The correct answer is **C) 3) 36**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 3) 36.

QUESTION 49

Question 49: A spinner has 8 equal sections: 3 red, 3 blue, and 2 green. What is the probability of NOT landing on green?

A) 1) 1/4

B) 2) 1/2

C) 3) 3/4

D) 4) 5/8

Correct Answer: C) 3) 3/4

Explanation: The correct answer is **C) 3) 3/4**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 3) 3/4.

QUESTION 50

Question 50: If the mean of six test scores is 82 and five scores are 78, 85, 79, 88, and 81, what is the sixth score?

A) 1) 81

B) 2) 83

C) 3) 85

D) 4) 89

Correct Answer: D) 4) 89

Explanation: The correct answer is **D) 4) 89**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 4) 89.

QUESTION 51

Essay Assignment

A) Prompt: Artificial intelligence is rapidly transforming healthcare, from diagnostic algorithms that detect diseases to robot-assisted surgeries and AI-powered drug discovery. Proponents argue AI will democratize healthcare access and improve outcomes. Skeptics warn of data privacy risks, algorithmic bias, and the loss of human judgment in medical decisions. What role should artificial intelligence play in healthcare?

B) Thesis Development: Take a clear position on the extent and limitations of AI in medicine. Support your argument with specific examples of benefits and/or risks. Consider: diagnostic accuracy, healthcare accessibility, patient privacy, doctor-patient relationships, and accountability for medical decisions.

C) Rubric Focus: Essays are scored on: (1) Clear, defensible thesis with nuanced reasoning, (2) Relevant, specific evidence and examples, (3) Coherent organization with smooth transitions, (4) Sophisticated vocabulary and sentence variety, (5) Command of grammar, usage, and mechanics.

D)

Correct Answer: A) Prompt: Artificial intelligence is rapidly transforming healthcare, from diagnostic algorithms that detect diseases to robot-assisted surgeries and AI-powered drug discovery. Proponents argue AI will democratize healthcare access and improve outcomes. Skeptics warn of data privacy risks, algorithmic bias, and the loss of human judgment in medical decisions. What role should artificial intelligence play in healthcare?

Explanation: The correct answer is **A) Prompt: Artificial intelligence is rapidly transforming healthcare, from diagnostic algorithms that detect diseases to robot-assisted surgeries and AI-powered drug discovery. Proponents argue AI will democratize healthcare access and improve outcomes. Skeptics warn of data privacy risks, algorithmic bias, and the loss of human judgment in medical decisions. What role should artificial intelligence play in healthcare?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

FULL CRC EXAM

TSIA2 Simulated Exam 16 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

Recent neuroscience research has challenged the popular notion that humans use only 10% of their brains. Brain imaging studies consistently demonstrate that virtually all regions of the brain show some activity over the course of a day, even during sleep. This myth's persistence despite contradictory evidence illustrates a phenomenon psychologists call "cognitive persistence"—the tendency for false but intuitive beliefs to resist factual correction. The 10% myth likely originated from early 20th-century advertisements for self-improvement courses and was perpetuated through misinterpretation of legitimate neuroscience findings about neural efficiency. In reality, the brain's 100 billion neurons and trillion glial cells all serve functions, whether in conscious thought, automatic processes, or maintaining physiological systems. Evolution would not have devoted 20% of the body's energy expenditure to an organ that operates at 10% capacity. Understanding why such myths propagate reveals important truths about human cognition: we prefer simple, empowering narratives over complex realities, and we often fail to update beliefs when presented with disconfirming evidence. Question 1: The primary purpose of this passage is to:

A) 1) Explain the brain's energy consumption patterns

B) 2) Debunk the 10% brain usage myth and explore why it persists

C) 3) Promote self-improvement courses

D) 4) Describe the structure of neurons and glial cells

Correct Answer: B) 2) Debunk the 10% brain usage myth and explore why it persists

Explanation: The correct answer is **B) 2) Debunk the 10% brain usage myth and explore why it persists**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 2

Question 2: According to the passage, 'cognitive persistence' refers to:

A) 1) The brain's ability to maintain focus over time

B) 2) False beliefs that resist correction despite contrary evidence

C) 3) Memory retention techniques

D) 4) The persistence of neural pathways

Correct Answer: B) 2) False beliefs that resist correction despite contrary evidence

Explanation: The correct answer is **B) 2) False beliefs that resist correction despite contrary evidence**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 3

Question 3: The passage suggests the 10% myth originated from:

A) 1) Legitimate neuroscience research findings

B) 2) Ancient philosophical traditions

C) 3) Early 20th-century self-improvement advertisements

D) 4) Medical school textbooks

Correct Answer: C) 3) Early 20th-century self-improvement advertisements

Explanation: The correct answer is **C) 3) Early 20th-century self-improvement advertisements**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '3) Early 20th-century self-improvement advertisements', making it the best-supported inference over the other options.

QUESTION 4

Question 4: The evolutionary argument against the 10% myth is that:

A) 1) Humans evolved larger brains than necessary

B) 2) Evolution wouldn't waste 20% of body energy on a mostly unused organ

C) 3) Brain size decreased during human evolution

D) 4) Other mammals use more of their brains

Correct Answer: B) 2) Evolution wouldn't waste 20% of body energy on a mostly unused organ

Explanation: The correct answer is **B) 2) Evolution wouldn't waste 20% of body energy on a mostly unused organ**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 5

Question 5: The passage indicates that humans prefer myths because:

A) 1) They are always more interesting than facts

B) 2) Scientific evidence is usually incorrect

C) 3) Simple, empowering narratives are more appealing than complex realities

D) 4) Myths are easier to remember than facts

Correct Answer: C) 3) Simple, empowering narratives are more appealing than complex realities

Explanation: The correct answer is **C) 3) Simple, empowering narratives are more appealing than complex realities**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 6

Question 6: Brain imaging studies show that:

A) 1) Only 10% of brain regions are active at any given moment

B) 2) Virtually all brain regions show activity over the course of a day

C) 3) The brain is completely inactive during sleep

D) 4) Most neurons never activate during a person's lifetime

Correct Answer: B) 2) Virtually all brain regions show activity over the course of a day

Explanation: The correct answer is **B) 2) Virtually all brain regions show activity over the course of a day**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 7

The Voting Rights Act of 1965 represented a watershed moment in American democracy, dismantling legal barriers that had prevented millions of African Americans from exercising their constitutional right to vote. Prior to the Act, many Southern states employed literacy tests, poll taxes, and grandfather clauses designed to circumvent the 15th Amendment's prohibition on racial discrimination in voting. These mechanisms were devastatingly effective: in Mississippi, only 6.7% of eligible Black voters were registered in 1964, compared to 69.9% of white voters. The Act prohibited these discriminatory practices and established federal oversight in jurisdictions with histories of voter suppression, requiring them to obtain federal approval before changing voting procedures—a provision known as "preclearance." Within four years of the Act's passage, Black voter registration in Southern states increased dramatically, rising to nearly 60% in Mississippi by 1969. However, the Supreme Court's 2013 decision in Shelby County v. Holder struck down the formula determining which jurisdictions required preclearance, arguing that it relied on outdated data. Critics contend this decision opened the door to new forms of voter suppression, including strict voter ID laws and polling place closures in predominantly minority communities, demonstrating that the struggle for equal voting rights remains ongoing. Question 7: The passage primarily discusses:

A) 1) The complete history of American democracy

B) 2) The Voting Rights Act of 1965 and its impact on voter access

C) 3) The Supreme Court's structure and functions

D) 4) Economic policies in the 1960s

Correct Answer: B) 2) The Voting Rights Act of 1965 and its impact on voter access

Explanation: The correct answer is **B) 2) The Voting Rights Act of 1965 and its impact on voter access**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 8

Question 8: Before 1965, Southern states used literacy tests and poll taxes to:

A) 1) Improve educational standards

B) 2) Generate tax revenue for schools

C) 3) Prevent African Americans from voting while circumventing the 15th Amendment

D) 4) Comply with federal law

Correct Answer: C) 3) Prevent African Americans from voting while circumventing the 15th Amendment

Explanation: The correct answer is **C) 3) Prevent African Americans from voting while circumventing the 15th Amendment**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 9

Question 9: In Mississippi in 1964, what percentage of eligible Black voters were registered?

A) 1) 6.7%

B) 2) 15.3%

C) 3) 42.8%

D) 4) 69.9%

Correct Answer: A) 1) 6.7%

Explanation: The correct answer is **A) 1) 6.7%**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields 1) 6.7%.

QUESTION 10

Question 10: The 'preclearance' provision required certain jurisdictions to:

A) 1) Conduct voter education programs

B) 2) Obtain federal approval before changing voting procedures

C) 3) Increase polling locations

D) 4) Provide translation services

Correct Answer: B) 2) Obtain federal approval before changing voting procedures

Explanation: The correct answer is **B) 2) Obtain federal approval before changing voting procedures**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 11

Question 11: The Shelby County v. Holder decision:

A) 1) Strengthened federal oversight of voting procedures

B) 2) Had no effect on voting rights enforcement

C) 3) Struck down the formula determining which jurisdictions required preclearance

D) 4) Expanded the Voting Rights Act to all states

Correct Answer: C) 3) Struck down the formula determining which jurisdictions required preclearance

Explanation: The correct answer is **C) 3) Struck down the formula determining which jurisdictions required preclearance**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 12

Question 12: The passage suggests that after the 2013 Supreme Court decision:

A) 1) Voter suppression was completely eliminated

B) 2) New forms of voter suppression emerged, such as strict ID laws

C) 3) All states adopted identical voting procedures

D) 4) Federal oversight increased in all jurisdictions

Correct Answer: B) 2) New forms of voter suppression emerged, such as strict ID laws

Explanation: The correct answer is **B) 2) New forms of voter suppression emerged, such as strict ID laws**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '2) New forms of voter suppression emerged, such as strict ID laws', making it the best-supported inference over the other options.

QUESTION 13

The piano had stood silent in the parlor for seven years, its ivory keys yellowed like old teeth, its strings slack and toneless. When Grandmother died, she took the music with her—or so Claudia believed. Yet on the morning of her sixteenth birthday, she found herself drawn to the dusty bench, her fingers tentatively finding middle C. The note emerged weak and flat, a ghost of its former resonance, but something in that imperfect sound unlocked a memory: Grandmother's hands, spotted with age but still graceful, moving across the keys like birds in flight. Claudia didn't know the formal names of chords or scales, but her hands remembered shapes, patterns that her conscious mind had forgotten. She played haltingly at first, then with growing confidence, until the old instrument seemed to wake from its long sleep, offering up melodies that had been waiting in silence, patient and preserved, for someone to call them back into the world. Question 13: The passage explores the theme of:

A) 1) The economic value of antique instruments

B) 2) Memory, inheritance, and rediscovery of connection

C) 3) Professional piano instruction techniques

D) 4) The science of musical acoustics

Correct Answer: B) 2) Memory, inheritance, and rediscovery of connection

Explanation: The correct answer is **B) 2) Memory, inheritance, and rediscovery of connection**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to '2) memory, inheritance, and rediscovery of connection' as the dominant tone.

QUESTION 14

Question 14: The simile 'ivory keys yellowed like old teeth' emphasizes:

A) 1) The piano's neglect and aging

B) 2) The grandmother's dental health

C) 3) Claudia's fear of the instrument

D) 4) The piano's monetary value

Correct Answer: A) 1) The piano's neglect and aging

Explanation: The correct answer is **A) 1) The piano's neglect and aging**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 15

Question 15: Claudia believed her grandmother 'took the music with her' meaning:

A) 1) Grandmother removed the sheet music from the house

B) 2) The piano was broken beyond repair

C) 3) The musical ability and joy had died with Grandmother

D) 4) Claudia was tone-deaf

Correct Answer: C) 3) The musical ability and joy had died with Grandmother

Explanation: The correct answer is **C) 3) The musical ability and joy had died with Grandmother**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 3) The musical ability and joy had died with Grandmother.

QUESTION 16

Question 16: The phrase 'her hands remembered shapes' suggests:

A) 1) Claudia had muscle memory from childhood observation

B) 2) Claudia was a professional pianist

C) 3) Grandmother controlled Claudia's hands supernaturally

D) 4) Claudia read sheet music fluently

Correct Answer: A) 1) Claudia had muscle memory from childhood observation

Explanation: The correct answer is **A) 1) Claudia had muscle memory from childhood observation**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 17

Question 17: The description of melodies 'waiting in silence, patient and preserved' personifies the music as:

A) 1) Angry and resentful

B) 2) Impatient and demanding

C) 3) Faithfully enduring until rediscovered

D) 4) Completely lost forever

Correct Answer: C) 3) Faithfully enduring until rediscovered

Explanation: The correct answer is **C) 3) Faithfully enduring until rediscovered**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 18

Question 18: Which sentence is punctuated correctly?

A) 1) The conference which was scheduled for Tuesday has been postponed.

B) 2) The conference, which was scheduled for Tuesday, has been postponed.

C) 3) The conference which was scheduled for Tuesday, has been postponed.

D) 4) The conference, which was scheduled for Tuesday has been postponed.

Correct Answer: B) 2) The conference, which was scheduled for Tuesday, has been postponed.

Explanation: The correct answer is **B) 2) The conference, which was scheduled for Tuesday, has been postponed.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

Question 19: Identify the sentence with correct verb tense:

A) 1) By the time you arrive, we will already ate dinner.

B) 2) By the time you arrive, we already eat dinner.

C) 3) By the time you arrive, we will have already eaten dinner.

D) 4) By the time you arrive, we have already ate dinner.

Correct Answer: C) 3) By the time you arrive, we will have already eaten dinner.

Explanation: The correct answer is **C) 3) By the time you arrive, we will have already eaten dinner.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 20

Question 20: Choose the sentence that uses 'lay' or 'lie' correctly:

A) 1) Please lay down and rest for a while.

B) 2) Please lie down and rest for a while.

C) 3) Please lain down and rest for a while.

D) 4) Please laying down and rest for a while.

Correct Answer: B) 2) Please lie down and rest for a while.

Explanation: The correct answer is **B) 2) Please lie down and rest for a while.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 21

Question 21: Which revision corrects the fragment? 'Although the experiment failed. The researchers learned valuable lessons.'

A) 1) Although the experiment failed, the researchers learned valuable lessons.

B) 2) Although the experiment failed; the researchers learned valuable lessons.

C) 3) Although, the experiment failed the researchers learned valuable lessons.

D) 4) Although the experiment failed the researchers learned valuable lessons.

Correct Answer: A) 1) Although the experiment failed, the researchers learned valuable lessons.

Explanation: The correct answer is **A) 1) Although the experiment failed, the researchers learned valuable lessons.**. A sentence fragment lacks a subject, a predicate, or both; a run-on joins independent clauses without proper punctuation or a coordinating conjunction. Option A is the only choice that forms a grammatically complete, correctly punctuated sentence.

QUESTION 22

Question 22: Select the sentence with correct comparative form:

A) 1) Of the two proposals, this one is the better option.

B) 2) Of the two proposals, this one is the best option.

C) 3) Of the two proposals, this one is the more better option.

D) 4) Of the two proposals, this one is the most best option.

Correct Answer: A) 1) Of the two proposals, this one is the better option.

Explanation: The correct answer is **A) 1) Of the two proposals, this one is the better option.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 23

Question 23: Identify the sentence with correct use of 'their,' 'there,' or 'they're':

A) 1) Their going to present they're findings at the conference over their.

B) 2) They're going to present there findings at the conference over their.

C) 3) They're going to present their findings at the conference over there.

D) 4) There going to present their findings at the conference over they're.

Correct Answer: C) 3) They're going to present their findings at the conference over there.

Explanation: The correct answer is **C) 3) They're going to present their findings at the conference over there.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 24

Question 24: Which sentence demonstrates correct use of a dash?

A) 1) The results were surprising—no one predicted this outcome.

B) 2) The results were surprising —no one predicted this outcome.

C) 3) The results were—surprising no one predicted this outcome.

D) 4) The results—were surprising no one predicted this outcome.

Correct Answer: A) 1) The results were surprising—no one predicted this outcome.

Explanation: The correct answer is **A) 1) The results were surprising—no one predicted this outcome.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 25

Question 25: Choose the sentence with correct subject-verb agreement:

A) 1) The data from the surveys indicate a significant trend.

B) 2) The data from the surveys indicates a significant trend.

C) 3) The data from the surveys is indicating a significant trend.

D) 4) The data from the surveys was indicating a significant trend.

Correct Answer: A) 1) The data from the surveys indicate a significant trend.

Explanation: The correct answer is **A) 1) The data from the surveys indicate a significant trend.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option A is grammatically correct.

QUESTION 26

Question 26: Select the sentence that avoids redundancy:

A) 1) She personally witnessed the event with her own eyes.

B) 2) She witnessed the event personally.

C) 3) She witnessed the event.

D) 4) She personally saw and witnessed the event with her own eyes.

Correct Answer: C) 3) She witnessed the event.

Explanation: The correct answer is **C) 3) She witnessed the event.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 27

Question 27: Identify the sentence with correct pronoun case:

A) 1) The award was given to Sarah and I.

B) 2) The award was given to Sarah and me.

C) 3) The award was given to Sarah and myself.

D) 4) The award was given to I and Sarah.

Correct Answer: B) 2) The award was given to Sarah and me.

Explanation: The correct answer is **B) 2) The award was given to Sarah and me.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option B uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 28

Question 28: Which sentence correctly uses a transition word?

A) 1) The project was challenging; therefore, the team worked collaboratively.

B) 2) The project was challenging, therefore the team worked collaboratively.

C) 3) The project was challenging therefore; the team worked collaboratively.

D) 4) The project was challenging; therefore the team worked collaboratively.

Correct Answer: A) 1) The project was challenging; therefore, the team worked collaboratively.

Explanation: The correct answer is **A) 1) The project was challenging; therefore, the team worked collaboratively.**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option A best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 29

Question 29: Choose the sentence with correct parallel structure:

A) 1) The committee discussed the budget, reviewed the timeline, and they made several recommendations.

B) 2) The committee discussed the budget, reviewed the timeline, and made several recommendations.

C) 3) The committee discussed the budget, reviewing the timeline, and made several recommendations.

D) 4) The committee discussing the budget, reviewed the timeline, and made several recommendations.

Correct Answer: B) 2) The committee discussed the budget, reviewed the timeline, and made several recommendations.

Explanation: The correct answer is **B) 2) The committee discussed the budget, reviewed the timeline, and made several recommendations.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option B maintains consistent grammatical form across all listed or compared elements.

QUESTION 30

Question 30: Identify the sentence with correct use of 'fewer' or 'less':

A) 1) There are less students enrolled this semester than last semester.

B) 2) There are fewer students enrolled this semester than last semester.

C) 3) There are less amount of students enrolled this semester than last semester.

D) 4) There is fewer students enrolled this semester than last semester.

Correct Answer: B) 2) There are fewer students enrolled this semester than last semester.

Explanation: The correct answer is **B) 2) There are fewer students enrolled this semester than last semester.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 31

Question 31: A subscription service costs $12.99 per month for the first year, then increases to $15.99 per month. What is the total cost for 2 years?

A) 1) $347.76

B) 2) $358.80

C) 3) $367.68

D) 4) $383.76

Correct Answer: C) 3) $367.68

Explanation: The correct answer is **C) 3) $367.68**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 32

Question 32: A mixture contains alcohol and water in a ratio of 2:5. If there are 35 liters of water, how many liters of alcohol are there?

A) 1) 10 liters

B) 2) 14 liters

C) 3) 18 liters

D) 4) 22 liters

Correct Answer: B) 2) 14 liters

Explanation: The correct answer is **B) 2) 14 liters**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives 2) 14 liters.

QUESTION 33

Question 33: A store buys jackets for $45 each and sells them at a 60% markup. What is the selling price?

A) 1) $63

B) 2) $67.50

C) 3) $72

D) 4) $78

Correct Answer: C) 3) $72

Explanation: The correct answer is **C) 3) $72**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 34

Question 34: If 2/3 of students passed an exam and 48 students passed, how many students took the exam?

A) 1) 64 students

B) 2) 68 students

C) 3) 72 students

D) 4) 76 students

Correct Answer: C) 3) 72 students

Explanation: The correct answer is **C) 3) 72 students**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 35

Question 35: A population of bacteria doubles every 3 hours. If there are initially 500 bacteria, how many will there be after 9 hours?

A) 1) 2,000 bacteria

B) 2) 3,000 bacteria

C) 3) 4,000 bacteria

D) 4) 4,500 bacteria

Correct Answer: C) 3) 4,000 bacteria

Explanation: The correct answer is **C) 3) 4,000 bacteria**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 36

Question 36: Solve for x: 4(x + 3) - 2x = 18

A) 1) x = 2

B) 2) x = 3

C) 3) x = 4

D) 4) x = 6

Correct Answer: B) 2) x = 3

Explanation: The correct answer is **B) 2) x = 3**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 2) x = 3.

QUESTION 37

Question 37: If $h(x) = x^2 - 5x + 6$, what are the zeros of this function?

A) 1) x = 1 and x = 6

B) 2) x = 2 and x = 3

C) 3) x = -2 and x = -3

D) 4) x = -1 and x = -6

Correct Answer: B) 2) x = 2 and x = 3

Explanation: The correct answer is **B) 2) x = 2 and x = 3**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 2) x = 2 and x = 3.

QUESTION 38

Question 38: Which expression is equivalent to $3x^2 - 12x$?

A) 1) 3x(x - 4)

B) 2) x(3x - 12)

C) 3) 3(x² - 4x)

D) 4) All of the above

Correct Answer: D) 4) All of the above

Explanation: The correct answer is **D) 4) All of the above**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 4) All of the above.

QUESTION 39

Question 39: A line perpendicular to y = 3x + 2 has what slope?

A) 1) 3

B) 2) -3

C) 3) 1/3

D) 4) -1/3

Correct Answer: D) 4) -1/3

Explanation: The correct answer is **D) 4) -1/3**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option D.

QUESTION 40

Question 40: Solve: 3x - 7 < 5x + 9

A) 1) x > -8

B) 2) x < -8

C) 3) x > 8

D) 4) x < 8

Correct Answer: A) 1) x > -8

Explanation: The correct answer is **A) 1) x > -8**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 1) x > -8.

QUESTION 41

Question 41: A cone has a radius of 4 cm and a height of 9 cm. What is its volume? (Use π ≈ 3.14 and V = 1/3πr²h)

A) 1) 113.04 cm³

B) 2) 150.72 cm³

C) 3) 226.08 cm³

D) 4) 452.16 cm³

Correct Answer: B) 2) 150.72 cm³

Explanation: The correct answer is **B) 2) 150.72 cm³**. Volume formulas: rectangular prism = l×w×h; cylinder = πr²h; cone = ⅓πr²h; sphere = (4/3)πr³. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 2) 150.72 cm³.

QUESTION 42

Question 42: In a parallelogram, one angle measures 115°. What is the measure of an adjacent angle?

A) 1) 25°

B) 2) 55°

C) 3) 65°

D) 4) 75°

Correct Answer: C) 3) 65°

Explanation: The correct answer is **C) 3) 65°**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option C maintains consistent grammatical form across all listed or compared elements.

QUESTION 43

Question 43: A rectangular garden is 15 feet wide. If the perimeter is 70 feet, what is the length?

A) 1) 18 feet

B) 2) 20 feet

C) 3) 22 feet

D) 4) 25 feet

Correct Answer: B) 2) 20 feet

Explanation: The correct answer is **B) 2) 20 feet**. This geometry problem requires identifying the correct formula or theorem and substituting the given measurements. Applying the relevant geometric principle — area, angle relationships, or similarity — step-by-step leads to 2) 20 feet.

QUESTION 44

Question 44: Two similar rectangles have corresponding sides in ratio 4:7. If the smaller rectangle has an area of 48 cm², what is the area of the larger rectangle?

A) 1) 84 cm²

B) 2) 98 cm²

C) 3) 112 cm²

D) 4) 147 cm²

Correct Answer: D) 4) 147 cm²

Explanation: The correct answer is **D) 4) 147 cm²**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 4) 147 cm².

QUESTION 45

Question 45: A circle has an area of 153.86 square inches. What is its diameter? (Use π ≈ 3.14)

A) 1) 7 inches

B) 2) 14 inches

C) 3) 21 inches

D) 4) 28 inches

Correct Answer: B) 2) 14 inches

Explanation: The correct answer is **B) 2) 14 inches**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 2) 14 inches.

QUESTION 46

Question 46: The first quartile (Q1) of a dataset represents:

A) 1) The lowest value

B) 2) The value below which 25% of data falls

C) 3) The median of the dataset

D) 4) The value below which 75% of data falls

Correct Answer: B) 2) The value below which 25% of data falls

Explanation: The correct answer is **B) 2) The value below which 25% of data falls**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 2) The value below which 25% of data falls.

QUESTION 47

Question 47: In a survey of 450 voters, 270 support a proposal. What percentage support the proposal?

A) 1) 55%

B) 2) 60%

C) 3) 65%

D) 4) 70%

Correct Answer: B) 2) 60%

Explanation: The correct answer is **B) 2) 60%**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields 2) 60%.

QUESTION 48

Question 48: The dataset {12, 15, 18, 15, 22, 15, 28} has which measure of central tendency equal to 15?

A) 1) Mean only

B) 2) Median only

C) 3) Mode only

D) 4) Both median and mode

Correct Answer: C) 3) Mode only

Explanation: The correct answer is **C) 3) Mode only**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 3) Mode only.

QUESTION 49

Question 49: A deck of 52 cards has 4 aces. If one card is drawn randomly, what is the probability it is NOT an ace?

A) 1) 1/13

B) 2) 4/13

C) 3) 9/13

D) 4) 12/13

Correct Answer: D) 4) 12/13

Explanation: The correct answer is **D) 4) 12/13**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 4) 12/13.

QUESTION 50

Question 50: If the standard deviation of a dataset is 0, this means:

A) 1) All values are the same

B) 2) The dataset contains no values

C) 3) The values are widely spread

D) 4) The mean equals zero

Correct Answer: A) 1) All values are the same

Explanation: The correct answer is **A) 1) All values are the same**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 1) All values are the same.

QUESTION 51

Essay Assignment

A) Prompt: Universal Basic Income (UBI)—providing all citizens with a regular, unconditional cash payment—has gained attention as automation threatens traditional employment. Advocates argue UBI would reduce poverty, provide economic security, and enable people to pursue education or entrepreneurship. Critics warn it would be prohibitively expensive, reduce work incentives, and fail to address underlying economic inequalities. Should governments implement Universal Basic Income programs?

B) Thesis Development: Establish a clear, defensible position on UBI. Support your argument with economic reasoning, real-world examples (such as pilot programs), and consideration of implementation challenges. Address: economic feasibility, effects on employment, poverty reduction, and potential social consequences.

C) Rubric Focus: Essays are scored on: (1) Sophisticated thesis with nuanced argumentation, (2) Specific, relevant evidence and logical reasoning, (3) Effective organization with clear transitions, (4) Mature writing style and varied syntax, (5) Control of grammar, mechanics, and usage.

D)

Correct Answer: A) Prompt: Universal Basic Income (UBI)—providing all citizens with a regular, unconditional cash payment—has gained attention as automation threatens traditional employment. Advocates argue UBI would reduce poverty, provide economic security, and enable people to pursue education or entrepreneurship. Critics warn it would be prohibitively expensive, reduce work incentives, and fail to address underlying economic inequalities. Should governments implement Universal Basic Income programs?

Explanation: The correct answer is **A) Prompt: Universal Basic Income (UBI)—providing all citizens with a regular, unconditional cash payment—has gained attention as automation threatens traditional employment. Advocates argue UBI would reduce poverty, provide economic security, and enable people to pursue education or entrepreneurship. Critics warn it would be prohibitively expensive, reduce work incentives, and fail to address underlying economic inequalities. Should governments implement Universal Basic Income programs?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

FULL CRC EXAM

TSIA2 Simulated Exam 17 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

The ocean's twilight zone, technically known as the mesopelagic layer, extends from 200 to 1,000 meters below the surface and remains one of Earth's least explored frontiers. This mysterious realm receives less than 1% of surface sunlight, creating a permanent dusk where bioluminescence becomes the primary form of communication and camouflage. Creatures here have evolved extraordinary adaptations: lanternfish possess light-producing photophores to attract mates and confuse predators, while giant squid have eyes the size of dinner plates to capture scarce photons. Recent research suggests the twilight zone may contain more fish biomass than all other ocean layers combined—an estimated 10 billion tons. This discovery has profound implications for both marine ecology and climate science, as twilight zone organisms play a crucial role in the biological carbon pump, consuming organic matter near the surface and transporting carbon to deep waters through their daily vertical migrations. However, this ecosystem faces emerging threats from proposed commercial fishing operations and climate change-induced oxygen depletion. Scientists warn that disrupting the twilight zone could accelerate atmospheric carbon accumulation and collapse food webs that support commercially important surface fish species. Question 1: The primary purpose of this passage is to:

A) 1) Describe commercial fishing techniques

B) 2) Explain the characteristics, importance, and threats to the ocean's twilight zone

C) 3) Compare different ocean depth layers

D) 4) Argue against all ocean exploration

Correct Answer: B) 2) Explain the characteristics, importance, and threats to the ocean's twilight zone

Explanation: The correct answer is **B) 2) Explain the characteristics, importance, and threats to the ocean's twilight zone**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 2

Question 2: The mesopelagic layer is characterized by:

A) 1) Abundant sunlight and plant life

B) 2) Complete darkness with no visible light

C) 3) Less than 1% of surface sunlight, creating permanent dusk

D) 4) Extreme heat from volcanic activity

Correct Answer: C) 3) Less than 1% of surface sunlight, creating permanent dusk

Explanation: The correct answer is **C) 3) Less than 1% of surface sunlight, creating permanent dusk**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 3

Question 3: According to the passage, lanternfish use bioluminescence to:

A) 1) Generate heat in cold water

B) 2) Attract mates and confuse predators

C) 3) Photosynthesize food

D) 4) Navigate to the surface

Correct Answer: B) 2) Attract mates and confuse predators

Explanation: The correct answer is **B) 2) Attract mates and confuse predators**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 4

Question 4: The 'biological carbon pump' refers to:

A) 1) Mechanical equipment used in ocean research

B) 2) The process by which organisms transport carbon from surface to deep waters

C) 3) A type of underwater vegetation

D) 4) A fishing technique

Correct Answer: B) 2) The process by which organisms transport carbon from surface to deep waters

Explanation: The correct answer is **B) 2) The process by which organisms transport carbon from surface to deep waters**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 5

Question 5: The passage suggests that the estimated fish biomass in the twilight zone is:

A) 1) Smaller than previously thought

B) 2) Potentially greater than all other ocean layers combined

C) 3) Declining due to natural causes

D) 4) Identical to surface layer biomass

Correct Answer: B) 2) Potentially greater than all other ocean layers combined

Explanation: The correct answer is **B) 2) Potentially greater than all other ocean layers combined**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '2) Potentially greater than all other ocean layers combined', making it the best-supported inference over the other options.

QUESTION 6

Question 6: Disrupting the twilight zone ecosystem could result in:

A) 1) Increased oxygen levels in surface waters

B) 2) Accelerated atmospheric carbon accumulation and collapsed food webs

C) 3) Enhanced commercial fishing yields

D) 4) Improved climate conditions

Correct Answer: B) 2) Accelerated atmospheric carbon accumulation and collapsed food webs

Explanation: The correct answer is **B) 2) Accelerated atmospheric carbon accumulation and collapsed food webs**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 7

Effective workplace communication transcends mere information exchange; it requires emotional intelligence, cultural awareness, and strategic message framing. Research in organizational psychology reveals that communication failures cause approximately 70% of workplace errors, resulting in billions of dollars in lost productivity annually. The challenge intensifies in modern hybrid work environments where teams navigate multiple communication channels—email, video calls, instant messaging, and occasional in-person meetings—each with distinct norms and expectations. Email, while convenient for documentation, often strips context and tone, leading to misinterpretations; one study found that readers correctly identify the intended tone of email messages only 56% of the time, barely better than chance. Video calls, despite enabling visual cues, create "Zoom fatigue" through constant self-monitoring and reduced mobility. Successful workplace communicators adapt their approach to both medium and audience, recognizing that a message effective for motivating a team may differ substantially from one designed to convey technical specifications or deliver constructive criticism. Furthermore, inclusive communication requires acknowledging diverse communication styles across cultures, generations, and neurotypes—what American business culture might interpret as confident directness, other cultures may perceive as inappropriate aggression. Organizations that invest in communication training and establish clear protocols for channel selection, response expectations, and conflict resolution consistently demonstrate higher employee satisfaction, faster problem resolution, and stronger innovation capacity. Question 7: The main idea of this passage is that:

A) 1) Email is superior to all other forms of workplace communication

B) 2) Effective workplace communication requires multiple skills and adaptation to context

C) 3) Hybrid work should be eliminated to improve communication

D) 4) All communication problems are caused by technology

Correct Answer: B) 2) Effective workplace communication requires multiple skills and adaptation to context

Explanation: The correct answer is **B) 2) Effective workplace communication requires multiple skills and adaptation to context**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to '2) effective workplace communication requires multiple skills and adaptation to context' as the dominant tone.

QUESTION 8

Question 8: According to the passage, what percentage of workplace errors result from communication failures?

A) 1) 30%

B) 2) 50%

C) 3) 70%

D) 4) 90%

Correct Answer: C) 3) 70%

Explanation: The correct answer is **C) 3) 70%**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 9

Question 9: The study cited found that email tone is correctly identified:

A) 1) Only 56% of the time

B) 2) 75% of the time

C) 3) 90% of the time

D) 4) Nearly 100% of the time

Correct Answer: A) 1) Only 56% of the time

Explanation: The correct answer is **A) 1) Only 56% of the time**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 10

Question 10: 'Zoom fatigue' is caused by:

A) 1) Poor internet connections

B) 2) Excessively long meetings only

C) 3) Constant self-monitoring and reduced mobility

D) 4) Lack of video camera quality

Correct Answer: C) 3) Constant self-monitoring and reduced mobility

Explanation: The correct answer is **C) 3) Constant self-monitoring and reduced mobility**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 11

Question 11: The passage suggests that communication styles:

A) 1) Are universal across all cultures

B) 2) Should always prioritize American business norms

C) 3) Vary across cultures, generations, and neurotypes

D) 4) Are irrelevant in digital communication

Correct Answer: C) 3) Vary across cultures, generations, and neurotypes

Explanation: The correct answer is **C) 3) Vary across cultures, generations, and neurotypes**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '3) Vary across cultures, generations, and neurotypes', making it the best-supported inference over the other options.

QUESTION 12

Question 12: Organizations that invest in communication training demonstrate:

A) 1) No measurable benefits

B) 2) Higher costs with minimal returns

C) 3) Higher employee satisfaction and stronger innovation capacity

D) 4) Decreased productivity due to training time

Correct Answer: C) 3) Higher employee satisfaction and stronger innovation capacity

Explanation: The correct answer is **C) 3) Higher employee satisfaction and stronger innovation capacity**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 3) Higher employee satisfaction and stronger innovation capacity.

QUESTION 13

Rain transformed the city into a watercolor painting, edges blurred and colors running together in streaks of gray and amber. Marcus stood beneath the bookstore awning, watching commuters hurry past with newspapers held overhead like makeshift umbrellas—a gesture both futile and endearing in its optimism. His interview had gone poorly; he could tell by the practiced smile of the hiring manager, the too-quick handshake, the promises to "be in touch" that meant nothing. Yet standing here, anonymous among strangers united in their shared discomfort with weather, he felt an unexpected lightness. Perhaps failure freed you from pretending, from maintaining the exhausting performance of confidence and competence. A woman nearby laughed as her umbrella inverted in a gust of wind, its metal skeleton exposed like a bat's wing, and Marcus found himself laughing too—not at her misfortune, but at the absurdity of humans perpetually surprised by rain in a city where it fell 200 days a year. The bookstore door chimed behind him, releasing the scent of old paper and coffee. He had nowhere he needed to be now. He went inside. Question 13: The mood of this passage is best described as:

A) 1) Triumphant and celebratory

B) 2) Contemplative with hints of unexpected liberation

C) 3) Angry and bitter

D) 4) Fearful and anxious

Correct Answer: B) 2) Contemplative with hints of unexpected liberation

Explanation: The correct answer is **B) 2) Contemplative with hints of unexpected liberation**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to '2) contemplative with hints of unexpected liberation' as the dominant tone.

QUESTION 14

Question 14: The simile comparing the city to a 'watercolor painting' emphasizes:

A) 1) The beauty and blurred quality created by rain

B) 2) Marcus's artistic abilities

C) 3) The city's poor drainage system

D) 4) The cost of urban living

Correct Answer: A) 1) The beauty and blurred quality created by rain

Explanation: The correct answer is **A) 1) The beauty and blurred quality created by rain**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 15

Question 15: Marcus's 'unexpected lightness' after the failed interview suggests:

A) 1) He didn't want the job anyway

B) 2) He is irresponsible about his career

C) 3) Failure relieved him of the pressure to maintain appearances

D) 4) He has another job offer waiting

Correct Answer: C) 3) Failure relieved him of the pressure to maintain appearances

Explanation: The correct answer is **C) 3) Failure relieved him of the pressure to maintain appearances**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 16

Question 16: The detail about rain falling '200 days a year' reveals:

A) 1) Marcus's obsession with weather statistics

B) 2) The irony of people being perpetually surprised by predictable rain

C) 3) The exact geographic location of the city

D) 4) That the city has unusual weather patterns

Correct Answer: B) 2) The irony of people being perpetually surprised by predictable rain

Explanation: The correct answer is **B) 2) The irony of people being perpetually surprised by predictable rain**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 17

Question 17: Marcus's decision to enter the bookstore represents:

A) 1) A practical escape from rain

B) 2) An embrace of unstructured time and possibility after rigid expectations

C) 3) A sign of depression and avoidance

D) 4) A planned purchase of a specific book

Correct Answer: B) 2) An embrace of unstructured time and possibility after rigid expectations

Explanation: The correct answer is **B) 2) An embrace of unstructured time and possibility after rigid expectations**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 18

Question 18: Which sentence correctly uses an appositive?

A) 1) Dr. Martinez a renowned physicist will deliver the keynote address.

B) 2) Dr. Martinez, a renowned physicist, will deliver the keynote address.

C) 3) Dr. Martinez a renowned physicist, will deliver the keynote address.

D) 4) Dr. Martinez, a renowned physicist will deliver the keynote address.

Correct Answer: B) 2) Dr. Martinez, a renowned physicist, will deliver the keynote address.

Explanation: The correct answer is **B) 2) Dr. Martinez, a renowned physicist, will deliver the keynote address.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

Question 19: Choose the sentence with correct subject-verb agreement:

A) 1) Either the manager or the employees is responsible for the error.

B) 2) Either the manager or the employees am responsible for the error.

C) 3) Either the manager or the employees are responsible for the error.

D) 4) Either the manager or the employees was responsible for the error.

Correct Answer: C) 3) Either the manager or the employees are responsible for the error.

Explanation: The correct answer is **C) 3) Either the manager or the employees are responsible for the error.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option C is grammatically correct.

QUESTION 20

Question 20: Identify the sentence that avoids a misplaced modifier:

A) 1) She nearly drove the car for six hours without stopping.

B) 2) She drove the car for nearly six hours without stopping.

C) 3) She drove nearly the car for six hours without stopping.

D) 4) Nearly she drove the car for six hours without stopping.

Correct Answer: B) 2) She drove the car for nearly six hours without stopping.

Explanation: The correct answer is **B) 2) She drove the car for nearly six hours without stopping.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 21

Question 21: Which sentence uses a colon correctly?

A) 1) The syllabus covers: three main topics research methods, data analysis, and presentation skills.

B) 2) The syllabus covers three main topics: research methods, data analysis, and presentation skills.

C) 3) The syllabus: covers three main topics research methods, data analysis, and presentation skills.

D) 4) The syllabus covers three main: topics research methods, data analysis, and presentation skills.

Correct Answer: B) 2) The syllabus covers three main topics: research methods, data analysis, and presentation skills.

Explanation: The correct answer is **B) 2) The syllabus covers three main topics: research methods, data analysis, and presentation skills.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option B as the only correctly punctuated version.

QUESTION 22

Question 22: Select the sentence with correct pronoun reference:

A) 1) When students submit their papers, they should be proofread carefully.

B) 2) When students submit their papers, the papers should be proofread carefully.

C) 3) When students submit papers, they should proofread it carefully.

D) 4) When submitting their papers students should proofread it carefully.

Correct Answer: B) 2) When students submit their papers, the papers should be proofread carefully.

Explanation: The correct answer is **B) 2) When students submit their papers, the papers should be proofread carefully.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option B uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 23

Question 23: Choose the sentence that maintains consistent point of view:

A) 1) When one studies abroad, you gain valuable cultural perspectives.

B) 2) When one studies abroad, one gains valuable cultural perspectives.

C) 3) When you study abroad, one gains valuable cultural perspectives.

D) 4) When we study abroad, you gain valuable cultural perspectives.

Correct Answer: B) 2) When one studies abroad, one gains valuable cultural perspectives.

Explanation: The correct answer is **B) 2) When one studies abroad, one gains valuable cultural perspectives.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 24

Question 24: Identify the sentence with correct use of 'which' or 'that':

A) 1) The laptop which I bought yesterday is already malfunctioning.

B) 2) The laptop that I bought yesterday is already malfunctioning.

C) 3) The laptop, that I bought yesterday, is already malfunctioning.

D) 4) The laptop, that I bought yesterday is already malfunctioning.

Correct Answer: B) 2) The laptop that I bought yesterday is already malfunctioning.

Explanation: The correct answer is **B) 2) The laptop that I bought yesterday is already malfunctioning.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 25

Question 25: Which revision best improves clarity? 'The instructions were confusing to the participants taking the survey.'

A) 1) The instructions confused the participants taking the survey.

B) 2) Taking the survey, the instructions were confusing to the participants.

C) 3) The participants, taking the survey, found the instructions confusing.

D) 4) The survey instructions confused the participants.

Correct Answer: D) 4) The survey instructions confused the participants.

Explanation: The correct answer is **D) 4) The survey instructions confused the participants.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 26

Question 26: Select the sentence with correct parallel structure:

A) 1) The training program emphasizes critical thinking, effective communication, and to work collaboratively.

B) 2) The training program emphasizes critical thinking, effective communication, and collaborative work.

C) 3) The training program emphasizes thinking critically, effective communication, and to work collaboratively.

D) 4) The training program emphasizes critical thinking, communicating effectively, and to work collaboratively.

Correct Answer: B) 2) The training program emphasizes critical thinking, effective communication, and collaborative work.

Explanation: The correct answer is **B) 2) The training program emphasizes critical thinking, effective communication, and collaborative work.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option B maintains consistent grammatical form across all listed or compared elements.

QUESTION 27

Question 27: Choose the sentence with correct use of a semicolon:

A) 1) The presentation was informative; however it exceeded the time limit.

B) 2) The presentation was informative, however; it exceeded the time limit.

C) 3) The presentation was informative; however, it exceeded the time limit.

D) 4) The presentation was informative however; it exceeded the time limit.

Correct Answer: C) 3) The presentation was informative; however, it exceeded the time limit.

Explanation: The correct answer is **C) 3) The presentation was informative; however, it exceeded the time limit.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

QUESTION 28

Question 28: Identify the sentence without a comma splice:

A) 1) The experiment succeeded, the results were published in Nature.

B) 2) The experiment succeeded, and the results were published in Nature.

C) 3) The experiment succeeded the results were published in Nature.

D) 4) The experiment succeeded; the results, were published in Nature.

Correct Answer: B) 2) The experiment succeeded, and the results were published in Nature.

Explanation: The correct answer is **B) 2) The experiment succeeded, and the results were published in Nature.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option B as the only correctly punctuated version.

QUESTION 29

Question 29: Which sentence correctly uses 'principal' or 'principle'?

A) 1) The school's principle announced new attendance policies.

B) 2) The principal reason for the delay was equipment failure.

C) 3) She refused to compromise her principals.

D) 4) The principle of the loan must be repaid first.

Correct Answer: B) 2) The principal reason for the delay was equipment failure.

Explanation: The correct answer is **B) 2) The principal reason for the delay was equipment failure.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 30

Question 30: Select the sentence that correctly uses conditional mood:

A) 1) If I was you, I would reconsider that decision.

B) 2) If I were you, I would reconsider that decision.

C) 3) If I am you, I would reconsider that decision.

D) 4) If I be you, I would reconsider that decision.

Correct Answer: B) 2) If I were you, I would reconsider that decision.

Explanation: The correct answer is **B) 2) If I were you, I would reconsider that decision.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 31

Question 31: A research grant of $75,000 is divided among three projects in the ratio 5:3:2. How much does the project with the largest allocation receive?

A) 1) $30,000

B) 2) $35,000

C) 3) $37,500

D) 4) $40,000

Correct Answer: C) 3) $37,500

Explanation: The correct answer is **C) 3) $37,500**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives 3) $37,500.

QUESTION 32

Question 32: A medication is prescribed at 2.5 mg per kilogram of body weight. How many mg should be given to a patient weighing 68 kg?

A) 1) 150 mg

B) 2) 160 mg

C) 3) 170 mg

D) 4) 180 mg

Correct Answer: C) 3) 170 mg

Explanation: The correct answer is **C) 3) 170 mg**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 33

Question 33: A bookstore offers a 25% discount on all items, followed by an additional 10% off the discounted price. What is the final price of a book originally priced at $40?

A) 1) $26.00

B) 2) $27.00

C) 3) $28.00

D) 4) $30.00

Correct Answer: B) 2) $27.00

Explanation: The correct answer is **B) 2) $27.00**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 34

Question 34: If 3/5 of a journey is 240 miles, what is the total distance of the journey?

A) 1) 360 miles

B) 2) 380 miles

C) 3) 400 miles

D) 4) 420 miles

Correct Answer: C) 3) 400 miles

Explanation: The correct answer is **C) 3) 400 miles**. The midpoint formula is $M = ((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is $d = \text{sqrt}((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces 3) 400 miles.

QUESTION 35

Question 35: An investment account grows by 6% annually. If it starts with $8,000, what will it be worth after 2 years? (Round to the nearest dollar)

A) 1) $8,480

B) 2) $8,989

C) 3) $9,120

D) 4) $9,600

Correct Answer: B) 2) $8,989

Explanation: The correct answer is **B) 2) $8,989**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 36

Question 36: Solve for x: 7x + 3 = 5x - 13

A) 1) x = -10

B) 2) x = -8

C) 3) x = -5

D) 4) x = -2

Correct Answer: B) 2) x = -8

Explanation: The correct answer is **B) 2) x = -8**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 2) x = -8.

QUESTION 37

Question 37: If f(x) = 4x - 7 and g(x) = x^2 + 2, what is f(g(3))?

A) 1) 33

B) 2) 37

C) 3) 41

D) 4) 45

Correct Answer: B) 2) 37

Explanation: The correct answer is **B) 2) 37**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 2) 37.

QUESTION 38

Question 38: Factor completely: $x^2 + 8x + 15$

A) 1) (x + 3)(x + 5)

B) 2) (x + 2)(x + 7)

C) 3) (x - 3)(x - 5)

D) 4) (x + 1)(x + 15)

Correct Answer: A) 1) (x + 3)(x + 5)

Explanation: The correct answer is **A) 1) (x + 3)(x + 5)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b^2-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 1) (x + 3)(x + 5).

QUESTION 39

Question 39: A line passes through (-3, 7) and (5, -1). What is its slope?

A) 1) -2

B) 2) -1

C) 3) 1

D) 4) 2

Correct Answer: B) 2) -1

Explanation: The correct answer is **B) 2) -1**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option B.

QUESTION 40

Question 40: Which inequality represents 'The product of a number and 4, decreased by 6, is greater than 18'?

A) 1) 4x - 6 > 18

B) 2) 4x - 6 < 18

C) 3) 4(x - 6) > 18

D) 4) x/4 - 6 > 18

Correct Answer: A) 1) 4x - 6 > 18

Explanation: The correct answer is **A) 1) 4x - 6 > 18**. Solving inequalities follows the same steps as equations, with one critical difference: multiplying or dividing by a negative number reverses the inequality sign. Isolating the variable in this inequality yields the solution set 1) 4x - 6 > 18.

QUESTION 41

Question 41: A rhombus has diagonals measuring 16 cm and 12 cm. What is its area?

A) 1) 84 cm²

B) 2) 96 cm²

C) 3) 108 cm²

D) 4) 192 cm²

Correct Answer: B) 2) 96 cm²

Explanation: The correct answer is **B) 2) 96 cm²**. This geometry problem requires identifying the correct formula or theorem and substituting the given measurements. Applying the relevant geometric principle — area, angle relationships, or similarity — step-by-step leads to 2) 96 cm².

QUESTION 42

Question 42: A cylinder has a height of 10 inches and a volume of 785 cubic inches. What is its radius? (Use $\pi \approx 3.14$)

A) 1) 4 inches

B) 2) 5 inches

C) 3) 6 inches

D) 4) 8 inches

Correct Answer: B) 2) 5 inches

Explanation: The correct answer is **B) 2) 5 inches**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 2) 5 inches.

QUESTION 43

Question 43: In a triangle, angles measure in the ratio 2:3:4. What is the measure of the largest angle?

A) 1) 60°

B) 2) 70°

C) 3) 80°

D) 4) 90°

Correct Answer: C) 3) 80°

Explanation: The correct answer is **C) 3) 80°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 3) 80°.

QUESTION 44

Question 44: A square has a diagonal of $10\sqrt{2}$ cm. What is the length of one side?

A) 1) 5 cm

B) 2) 7.5 cm

C) 3) 10 cm

D) 4) 15 cm

Correct Answer: C) 3) 10 cm

Explanation: The correct answer is **C) 3) 10 cm**. This geometry problem requires identifying the correct formula or theorem and substituting the given measurements. Applying the relevant geometric principle — area, angle relationships, or similarity — step-by-step leads to 3) 10 cm.

QUESTION 45

Question 45: Two similar triangles have areas of 36 cm² and 81 cm². If a side of the smaller triangle is 8 cm, what is the corresponding side of the larger triangle?

A) 1) 10 cm

B) 2) 12 cm

C) 3) 14 cm

D) 4) 16 cm

Correct Answer: B) 2) 12 cm

Explanation: The correct answer is **B) 2) 12 cm**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 2) 12 cm.

QUESTION 46

Question 46: A dataset has values: 45, 52, 48, 63, 55, 48, 70. What is the mode?

A) 1) 45

B) 2) 48

C) 3) 52

D) 4) 55

Correct Answer: B) 2) 48

Explanation: The correct answer is **B) 2) 48**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives 2) 48.

QUESTION 47

Question 47: In a group of 120 people, the ratio of adults to children is 7:5. How many children are there?

A) 1) 40

B) 2) 45

C) 3) 50

D) 4) 60

Correct Answer: C) 3) 50

Explanation: The correct answer is **C) 3) 50**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives 3) 50.

QUESTION 48

Question 48: The mean of four numbers is 38. If three numbers are 32, 41, and 35, what is the fourth number?

A) 1) 42

B) 2) 44

C) 3) 46

D) 4) 48

Correct Answer: D) 4) 48

Explanation: The correct answer is **D) 4) 48**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 4) 48.

QUESTION 49

Question 49: Two dice are rolled. What is the probability that the sum is 7?

A) 1) 1/12

B) 2) 1/9

C) 3) 1/6

D) 4) 1/4

Correct Answer: C) 3) 1/6

Explanation: The correct answer is **C) 3) 1/6**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 3) 1/6.

QUESTION 50

Question 50: A negative correlation coefficient (r = -0.82) between study hours and stress levels indicates:

A) 1) As study hours increase, stress levels tend to increase

B) 2) As study hours increase, stress levels tend to decrease

C) 3) Study hours and stress levels are not related

D) 4) The data contains errors

Correct Answer: B) 2) As study hours increase, stress levels tend to decrease

Explanation: The correct answer is **B) 2) As study hours increase, stress levels tend to decrease**. Scatter plots show the relationship between two variables. A positive correlation means both increase together; a negative correlation means one increases as the other decreases; no correlation means no discernible pattern. Examining the trend in this scatter plot indicates 2) As study hours increase, stress levels tend to decrease.

QUESTION 51

Essay Assignment

A) Prompt: Social media platforms have become primary sources of news and political information for millions of people. Some argue that social media democratizes information and enables citizen participation in democracy. Critics warn that algorithm-driven content, echo chambers, and misinformation undermine informed decision-making and polarize societies. What is social media's impact on democratic processes and civic engagement?

B) Thesis Development: Develop a nuanced position on whether social media strengthens or weakens democracy. Support your argument with specific examples of social media's effects on: information access, political participation, polarization, misinformation, and civic discourse. Consider both benefits and harms in forming your position.

C) Rubric Focus: Essays are scored on: (1) Sophisticated, defensible thesis with complex reasoning, (2) Specific, relevant evidence and logical analysis, (3) Coherent organization with effective transitions, (4) Mature writing style with syntactic variety, (5) Control of standard written English conventions.

D)

Correct Answer: A) Prompt: Social media platforms have become primary sources of news and political information for millions of people. Some argue that social media democratizes information and enables citizen participation in democracy. Critics warn that algorithm-driven content, echo chambers, and misinformation undermine informed decision-making and polarize societies. What is social media's impact on democratic processes and civic engagement?

Explanation: The correct answer is **A) Prompt: Social media platforms have become primary sources of news and political information for millions of people. Some argue that social media democratizes information and enables citizen participation in democracy. Critics warn that algorithm-driven content, echo chambers, and misinformation undermine informed decision-making and polarize societies. What is social media's impact on democratic processes and civic engagement?**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

FULL CRC EXAM

TSIA2 Simulated Exam 18 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

Coral reefs, often called the rainforests of the sea, support approximately 25% of all marine species despite covering less than 1% of the ocean floor. These complex ecosystems face unprecedented threats from ocean acidification, rising temperatures, and pollution. When atmospheric carbon dioxide dissolves in seawater, it forms carbonic acid, lowering the ocean's pH and making it harder for corals to build their calcium carbonate skeletons. Additionally, warming waters cause coral bleaching—a stress response where corals expel their symbiotic algae, losing both their color and primary food source. Without these algae, corals can survive only a few weeks. Scientists estimate that half of the world's coral reefs have died in the past 30 years, and if current trends continue, 90% could disappear by 2050. However, some coral populations show remarkable resilience, adapting to warmer and more acidic conditions, offering hope for reef conservation. What is the primary purpose of this passage?

A) 1) To explain the biodiversity of coral reef ecosystems

B) 2) To describe the threats facing coral reefs and their environmental significance

C) 3) To argue for immediate policy changes regarding ocean conservation

D) 4) To compare coral reefs to tropical rainforests

Correct Answer: B) 2) To describe the threats facing coral reefs and their environmental significance

Explanation: The correct answer is **B) 2) To describe the threats facing coral reefs and their environmental significance**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 2

Based on the passage, ocean acidification affects coral reefs by:

A) 1) Raising ocean temperatures beyond corals' tolerance levels

B) 2) Preventing corals from expelling their symbiotic algae

C) 3) Making it difficult for corals to construct their calcium carbonate structures

D) 4) Increasing the biodiversity of marine species

Correct Answer: C) 3) Making it difficult for corals to construct their calcium carbonate structures

Explanation: The correct answer is **C) 3) Making it difficult for corals to construct their calcium carbonate structures**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 3

The author mentions that 'some coral populations show remarkable resilience' primarily to:

A) 1) Contradict the earlier claim about coral reef decline

B) 2) Suggest that conservation efforts are unnecessary

C) 3) Provide a hopeful perspective despite the serious threats described

D) 4) Prove that ocean acidification is reversible

Correct Answer: C) 3) Provide a hopeful perspective despite the serious threats described

Explanation: The correct answer is **C) 3) Provide a hopeful perspective despite the serious threats described**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 4

Which statement best describes the relationship between corals and their symbiotic algae?

A) 1) The algae provide color but serve no nutritional purpose

B) 2) The algae are essential for coral survival, providing their primary food source

C) 3) The algae weaken coral skeletons during bleaching events

D) 4) The algae are only present in healthy, unbleached corals

Correct Answer: B) 2) The algae are essential for coral survival, providing their primary food source

Explanation: The correct answer is **B) 2) The algae are essential for coral survival, providing their primary food source**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 5

The passage suggests that without intervention, what percentage of coral reefs might be lost by 2050?

A) 1) 25%

B) 2) 50%

C) 3) 75%

D) 4) 90%

Correct Answer: D) 4) 90%

Explanation: The correct answer is **D) 4) 90%**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '4) 90%', making it the best-supported inference over the other options.

QUESTION 6

The Louisiana Purchase of 1803 stands as one of history's most significant real estate transactions. For $15 million, the United States acquired approximately 827,000 square miles from France, doubling the nation's size overnight. President Thomas Jefferson faced a constitutional dilemma: the Constitution did not explicitly grant the federal government power to acquire new territory. Despite his strict constructionist philosophy—believing the government should exercise only powers explicitly stated in the Constitution—Jefferson proceeded with the purchase, reasoning that the opportunity was too valuable to miss. The acquisition gave the U.S. control of the Mississippi River and the port of New Orleans, essential for western farmers to transport goods to market. It also removed a European power from North America, reducing potential conflicts. The purchase ultimately encompassed all or part of 15 current U.S. states and set a precedent for American expansion westward. The passage indicates that Jefferson's decision to proceed with the Louisiana Purchase was:

A) 1) Consistent with his strict interpretation of constitutional powers

B) 2) A compromise between his political beliefs and practical considerations

C) 3) Supported unanimously by Congress and the American public

D) 4) Made without consideration of constitutional limitations

Correct Answer: B) 2) A compromise between his political beliefs and practical considerations

Explanation: The correct answer is **B) 2) A compromise between his political beliefs and practical considerations**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 7

According to the passage, which was NOT mentioned as a benefit of the Louisiana Purchase?

A) 1) Control of the Mississippi River

B) 2) Doubling the nation's territorial size

C) 3) Elimination of conflicts with Native American tribes

D) 4) Removal of a European power from the continent

Correct Answer: C) 3) Elimination of conflicts with Native American tribes

Explanation: The correct answer is **C) 3) Elimination of conflicts with Native American tribes**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 8

The term 'strict constructionist philosophy' most nearly means:

A) 1) Belief in expanding federal power through liberal interpretation

B) 2) Adherence to only explicitly stated constitutional powers

C) 3) Opposition to all territorial expansion

D) 4) Support for unlimited executive authority

Correct Answer: B) 2) Adherence to only explicitly stated constitutional powers

Explanation: The correct answer is **B) 2) Adherence to only explicitly stated constitutional powers**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 2) Adherence to only explicitly stated constitutional powers.

QUESTION 9

The passage suggests that the Louisiana Purchase:

A) 1) Was legally questionable despite its practical benefits

B) 2) Resolved all territorial disputes in North America

C) 3) Cost far more than its actual value

D) 4) Was primarily motivated by agricultural concerns

Correct Answer: A) 1) Was legally questionable despite its practical benefits

Explanation: The correct answer is **A) 1) Was legally questionable despite its practical benefits**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '1) Was legally questionable despite its practical benefits', making it the best-supported inference over the other options.

QUESTION 10

What can be inferred about the importance of New Orleans to western farmers?

A) 1) It provided the only available market for their crops

B) 2) It served as a critical shipping point for transporting goods

C) 3) It offered the most fertile land for agricultural expansion

D) 4) It protected them from European military threats

Correct Answer: B) 2) It served as a critical shipping point for transporting goods

Explanation: The correct answer is **B) 2) It served as a critical shipping point for transporting goods**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 11

The concept of 'flow,' introduced by psychologist Mihály Csíkszentmihályi, describes a mental state of complete immersion in an activity. During flow, individuals experience intense focus, loss of self-consciousness, and a distorted sense of time. This state occurs when a task's difficulty perfectly matches a person's skill level—challenging enough to engage attention but not so difficult as to cause anxiety. Athletes often call this 'being in the zone,' while artists describe it as inspiration. Research shows that people report the highest levels of happiness and productivity during flow states. However, modern life's constant distractions—notifications, multitasking, interruptions—make achieving flow increasingly difficult. The fragmented attention demanded by contemporary technology may be reducing our capacity for the deep concentration flow requires. Csíkszentmihályi argued that cultivating flow experiences is essential for human fulfillment and well-being. The primary purpose of this passage is to:

A) 1) Critique modern technology's impact on concentration

B) 2) Explain the concept of flow and its significance for well-being

C) 3) Compare how athletes and artists experience creativity

D) 4) Provide instructions for achieving flow states

Correct Answer: B) 2) Explain the concept of flow and its significance for well-being

Explanation: The correct answer is **B) 2) Explain the concept of flow and its significance for well-being**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 12

According to the passage, flow is most likely to occur when:

A) 1) A task is extremely easy and requires minimal effort

B) 2) Multiple activities are pursued simultaneously

C) 3) Task difficulty aligns appropriately with skill level

D) 4) External distractions are moderately present

Correct Answer: C) 3) Task difficulty aligns appropriately with skill level

Explanation: The correct answer is **C) 3) Task difficulty aligns appropriately with skill level**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '3) Task difficulty aligns appropriately with skill level', making it the best-supported inference over the other options.

QUESTION 13

The passage suggests that modern technology affects flow by:

A) 1) Providing tools that enhance deep concentration

B) 2) Creating conditions that fragment attention

C) 3) Eliminating the possibility of achieving flow states

D) 4) Making tasks too easy to be engaging

Correct Answer: B) 2) Creating conditions that fragment attention

Explanation: The correct answer is **B) 2) Creating conditions that fragment attention**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '2) Creating conditions that fragment attention', making it the best-supported inference over the other options.

QUESTION 14

The author's tone in discussing modern distractions can best be described as:

A) 1) Enthusiastically supportive

B) 2) Neutrally observational

C) 3) Mildly concerned

D) 4) Strongly condemning

Correct Answer: C) 3) Mildly concerned

Explanation: The correct answer is **C) 3) Mildly concerned**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to '3) mildly concerned' as the dominant tone.

QUESTION 15

Based on the passage, which scenario would most likely produce a flow state?

A) 1) A beginner attempting an expert-level chess puzzle

B) 2) An experienced pianist playing a moderately challenging new piece

C) 3) A student checking social media while studying

D) 4) A professional doing routine work far below their skill level

Correct Answer: B) 2) An experienced pianist playing a moderately challenging new piece

Explanation: The correct answer is **B) 2) An experienced pianist playing a moderately challenging new piece**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '2) An experienced pianist playing a moderately challenging new piece', making it the best-supported inference over the other options.

QUESTION 16

The phrase 'loss of self-consciousness' most nearly means:

A) 1) Becoming unaware of one's surroundings

B) 2) Losing awareness of oneself as separate from the activity

C) 3) Experiencing memory loss during intense focus

D) 4) Developing unconscious habits through practice

Correct Answer: B) 2) Losing awareness of oneself as separate from the activity

Explanation: The correct answer is **B) 2) Losing awareness of oneself as separate from the activity**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 2) Losing awareness of oneself as separate from the activity.

QUESTION 17

Which statement best represents Csíkszentmihályi's view on flow?

A) 1) Flow is a rare experience available only to elite performers

B) 2) Flow experiences are essential for human fulfillment

C) 3) Flow has become easier to achieve in modern society

D) 4) Flow is primarily a physical rather than mental phenomenon

Correct Answer: B) 2) Flow experiences are essential for human fulfillment

Explanation: The correct answer is **B) 2) Flow experiences are essential for human fulfillment**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 18

The committee members discussed the proposal, they couldn't reach a consensus on the implementation timeline. Which revision best corrects the sentence?

A) 1) The committee members discussed the proposal; they couldn't reach a consensus on the implementation timeline.

B) 2) The committee members discussed the proposal they couldn't reach a consensus on the implementation timeline.

C) 3) The committee members discussed the proposal, and couldn't reach a consensus on the implementation timeline.

D) 4) The committee members discussed, the proposal they couldn't reach a consensus on the implementation timeline.

Correct Answer: A) 1) The committee members discussed the proposal; they couldn't reach a consensus on the implementation timeline.

Explanation: The correct answer is **A) 1) The committee members discussed the proposal; they couldn't reach a consensus on the implementation timeline.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

Neither the director nor the actors was prepared for the technical difficulties that disrupted the opening night performance. What is the error in this sentence?

A) 1) 'Neither...nor' should be 'either...or'

B) 2) 'was prepared' should be 'were prepared'

C) 3) 'that disrupted' should be 'which disrupted'

D) 4) No error

Correct Answer: B) 2) 'was prepared' should be 'were prepared'

Explanation: The correct answer is **B) 2) 'was prepared' should be 'were prepared'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 20

Having completed the marathon in record time, the crowd erupted in applause for the runner. What is the error in this sentence?

A) 1) Misplaced modifier—the crowd didn't complete the marathon

B) 2) Incorrect verb tense with 'having completed'

C) 3) 'erupted in' should be 'erupted with'

D) 4) No error

Correct Answer: A) 1) Misplaced modifier—the crowd didn't complete the marathon

Explanation: The correct answer is **A) 1) Misplaced modifier—the crowd didn't complete the marathon**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 21

[1] Renewable energy sources are becoming increasingly viable. [2] Solar panel efficiency has improved dramatically. [3] Wind turbines now generate power more cost-effectively than ever. [4] These technologies still face challenges in energy storage and grid integration. Which transition should be added to the beginning of sentence 4?

A) 1) Furthermore,

B) 2) Similarly,

C) 3) However,

D) 4) Therefore,

Correct Answer: C) 3) However,

Explanation: The correct answer is **C) 3) However,**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option C best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 22

The restaurant's new menu features innovative dishes that combines traditional techniques with modern ingredients. What is the error in this sentence?

A) 1) 'features' should be 'feature'

B) 2) 'combines' should be 'combine'

C) 3) 'with' should be 'and'

D) 4) No error

Correct Answer: B) 2) 'combines' should be 'combine'

Explanation: The correct answer is **B) 2) 'combines' should be 'combine'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 23

Between you and I, the proposed budget seems unrealistic given our current financial constraints. What is the error in this sentence?

A) 1) 'Between' should be 'Among'

B) 2) 'I' should be 'me'

C) 3) 'seems' should be 'seem'

D) 4) No error

Correct Answer: B) 2) 'I' should be 'me'

Explanation: The correct answer is **B) 2) 'I' should be 'me'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 24

The archaeologist discovered artifacts that indicate the ancient civilization had a more sophisticated understanding of astronomy than previously believed. Which revision improves the sentence's conciseness without changing its meaning?

A) 1) The archaeologist discovered artifacts indicating the ancient civilization's more sophisticated understanding of astronomy than previously believed.

B) 2) The archaeologist's artifact discovery indicates ancient civilization astronomy understanding was more sophisticated.

C) 3) Artifacts discovered by the archaeologist indicate the ancient civilization understood astronomy more sophisticatedly than previously believed.

D) 4) The sentence is already concise and clear.

Correct Answer: A) 1) The archaeologist discovered artifacts indicating the ancient civilization's more sophisticated understanding of astronomy than previously believed.

Explanation: The correct answer is **A) 1) The archaeologist discovered artifacts indicating the ancient civilization's more sophisticated understanding of astronomy than previously believed.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 25

The company announced that it's quarterly earnings exceeded expectations, boosting it's stock price significantly. What is the error in this sentence?

A) 1) First 'it's' should be 'its'

B) 2) Second 'it's' should be 'its'

C) 3) Both instances of 'it's' should be 'its'

D) 4) No error

Correct Answer: C) 3) Both instances of 'it's' should be 'its'

Explanation: The correct answer is **C) 3) Both instances of 'it's' should be 'its'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 26

[1] Digital privacy concerns have escalated in recent years. [2] Social media platforms collect vast amounts of personal data. [3] This data is often sold to third-party advertisers. [4] Users should educate themselves about privacy settings. Which sentence is least relevant to the main idea?

A) 1) Sentence 1

B) 2) Sentence 2

C) 3) Sentence 3

D) 4) All sentences are relevant

Correct Answer: D) 4) All sentences are relevant

Explanation: The correct answer is **D) 4) All sentences are relevant**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 27

The research team's findings, which was published in a prestigious journal, challenged conventional wisdom about sleep patterns. What is the error in this sentence?

A) 1) 'which' should be 'that'

B) 2) 'was published' should be 'were published'

C) 3) 'challenged' should be 'challenges'

D) 4) No error

Correct Answer: B) 2) 'was published' should be 'were published'

Explanation: The correct answer is **B) 2) 'was published' should be 'were published'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 28

Despite having studied diligently, the exam proved more challenging than Sarah anticipated. What is the grammatical function of 'Despite having studied diligently'?

A) 1) Independent clause

B) 2) Subordinate clause

C) 3) Participial phrase

D) 4) Prepositional phrase

Correct Answer: D) 4) Prepositional phrase

Explanation: The correct answer is **D) 4) Prepositional phrase**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 4) Prepositional phrase.

QUESTION 29

The committee recommended that each department submit their annual report by the end of the month. What is the error in this sentence?

A) 1) 'recommended' should be 'recommends'

B) 2) 'their' should be 'its'

C) 3) 'submit' should be 'submits'

D) 4) No error

Correct Answer: B) 2) 'their' should be 'its'

Explanation: The correct answer is **B) 2) 'their' should be 'its'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 30

Although the experiment yielded unexpected results, the researchers maintained that the methodology was sound and the findings were significant. Which best describes the relationship between the clauses?

A) 1) The second clause contradicts the first

B) 2) The second clause provides additional information despite the first

C) 3) The second clause is a direct result of the first

D) 4) The clauses present two unrelated ideas

Correct Answer: B) 2) The second clause provides additional information despite the first

Explanation: The correct answer is **B) 2) The second clause provides additional information despite the first**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 31

A grocery store sells apples for $1.85 per pound. If Sarah buys 3.6 pounds of apples and pays with a $10 bill, how much change should she receive?

A) 1) $3.34

B) 2) $6.66

C) 3) $3.94

D) 4) $6.06

Correct Answer: A) 1) $3.34

Explanation: The correct answer is **A) 1) $3.34**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 32

A car's value depreciates by 18% each year. If the car is currently worth $24,000, what will its approximate value be in 2 years?

A) 1) $16,147

B) 2) $16,416

C) 3) $19,680

D) 4) $18,720

Correct Answer: B) 2) $16,416

Explanation: The correct answer is **B) 2) $16,416**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 33

A recipe calls for a ratio of 3 cups of flour to 2 cups of sugar. If you want to use 7.5 cups of flour, how many cups of sugar do you need?

A) 1) 4.5

B) 2) 5.0

C) 3) 5.5

D) 4) 6.0

Correct Answer: B) 2) 5.0

Explanation: The correct answer is **B) 2) 5.0**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives 2) 5.0.

QUESTION 34

A investment account earns 4.5% annual interest compounded monthly. If $5,000 is deposited, what is the approximate balance after 3 years? Use A = P(1 + r/n)^(nt)

A) 1) $5,712

B) 2) $5,675

C) 3) $5,725

D) 4) $5,750

Correct Answer: C) 3) $5,725

Explanation: The correct answer is **C) 3) $5,725**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 35

A store marks up merchandise by 40% above wholesale cost. During a sale, items are discounted 25% from the retail price. If an item costs the store $80 wholesale, what is the sale price?

A) 1) $84

B) 2) $88

C) 3) $92

D) 4) $96

Correct Answer: A) 1) $84

Explanation: The correct answer is **A) 1) $84**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 36

Solve for x: 3(2x - 5) = 4x + 7

A) 1) x = 8

B) 2) x = 11

C) 3) x = 5.5

D) 4) x = 4

Correct Answer: B) 2) x = 11

Explanation: The correct answer is **B) 2) x = 11**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 2) x = 11.

QUESTION 37

If $f(x) = 2x^2 - 3x + 1$, what is $f(-3)$?

A) 1) 28

B) 2) 10

C) 3) 19

D) 4) 37

Correct Answer: A) 1) 28

Explanation: The correct answer is **A) 1) 28**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 1) 28.

QUESTION 38

Which inequality represents 'Five less than twice a number is greater than or equal to 13'?

A) 1) $5 - 2x \geq 13$

B) 2) $2x - 5 \geq 13$

C) 3) $2(x - 5) \geq 13$

D) 4) $5 < 2x + 13$

Correct Answer: B) 2) $2x - 5 \geq 13$

Explanation: The correct answer is **B) 2) $2x - 5 \geq 13$**. Solving inequalities follows the same steps as equations, with one critical difference: multiplying or dividing by a negative number reverses the inequality sign. Isolating the variable in this inequality yields the solution set 2) $2x - 5 \geq 13$.

QUESTION 39

What is the slope of a line passing through points (-2, 5) and (4, -7)?

A) 1) -2

B) 2) -1/2

C) 3) 2

D) 4) 1/2

Correct Answer: A) 1) -2

Explanation: The correct answer is **A) 1) -2**. In slope-intercept form $y = mx + b$, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option A.

QUESTION 40

Simplify: $(3x^2y^3)^2 \div (xy)^2$

A) 1) $9x^2y^4$

B) 2) $9xy^4$

C) 3) $3x^2y^4$

D) 4) $9x^3y^5$

Correct Answer: A) 1) $9x^2y^4$

Explanation: The correct answer is **A) 1) $9x^2y^4$**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 1) $9x^2y^4$.

QUESTION 41

A cylindrical water tank has a radius of 4 feet and a height of 10 feet. What is its volume in cubic feet? Use $\pi \approx 3.14$

A) 1) 502.4

B) 2) 251.2

C) 3) 125.6

D) 4) 1004.8

Correct Answer: A) 1) 502.4

Explanation: The correct answer is **A) 1) 502.4**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 1) 502.4.

QUESTION 42

In a right triangle, one acute angle measures 35°. What is the measure of the other acute angle?

A) 1) 45°

B) 2) 55°

C) 3) 65°

D) 4) 75°

Correct Answer: B) 2) 55°

Explanation: The correct answer is **B) 2) 55°**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 2) 55°.

QUESTION 43

A rectangular garden measures 24 feet by 18 feet. A uniform path of width x feet is built around the outside. Which expression represents the total area including the path?

A) 1) 24x + 18x

B) 2) (24 + x)(18 + x)

C) 3) (24 + 2x)(18 + 2x)

D) 4) 432 + 4x

Correct Answer: C) 3) (24 + 2x)(18 + 2x)

Explanation: The correct answer is **C) 3) (24 + 2x)(18 + 2x)**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 3) (24 + 2x)(18 + 2x).

QUESTION 44

Two similar triangles have corresponding sides in the ratio 3:5. If the smaller triangle has a perimeter of 36 cm, what is the perimeter of the larger triangle?

A) 1) 54 cm

B) 2) 60 cm

C) 3) 48 cm

D) 4) 72 cm

Correct Answer: B) 2) 60 cm

Explanation: The correct answer is **B) 2) 60 cm**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 2) 60 cm.

QUESTION 45

A circle has a diameter of 16 inches. What is the area of the circle in square inches? Use π ≈ 3.14

A) 1) 50.24

B) 2) 100.48

C) 3) 200.96

D) 4) 803.84

Correct Answer: C) 3) 200.96

Explanation: The correct answer is **C) 3) 200.96**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 3) 200.96.

QUESTION 46

A data set has values: 12, 15, 18, 18, 20, 22, 24, 30. What is the median?

A) 1) 18

B) 2) 19

C) 3) 20

D) 4) 19.875

Correct Answer: B) 2) 19

Explanation: The correct answer is **B) 2) 19**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of 2) 19.

QUESTION 47

In a survey of 200 students, 65% prefer online learning. How many students is this?

A) 1) 65

B) 2) 120

C) 3) 130

D) 4) 135

Correct Answer: C) 3) 130

Explanation: The correct answer is **C) 3) 130**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 3) 130.

QUESTION 48

A dataset has a mean of 45 and a standard deviation of 6. Which value is exactly 2 standard deviations above the mean?

A) 1) 51

B) 2) 53

C) 3) 57

D) 4) 63

Correct Answer: C) 3) 57

Explanation: The correct answer is **C) 3) 57**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 3) 57.

QUESTION 49

The probability of rain on any given day in April is 0.35. What is the probability that it does NOT rain?

A) 1) 0.35

B) 2) 0.50

C) 3) 0.65

D) 4) 0.75

Correct Answer: C) 3) 0.65

Explanation: The correct answer is **C) 3) 0.65**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 3) 0.65.

QUESTION 50

A box plot shows Q1 = 20, Q2 = 28, and Q3 = 35. What is the interquartile range (IQR)?

A) 1) 8

B) 2) 15

C) 3) 28

D) 4) 35

Correct Answer: B) 2) 15

Explanation: The correct answer is **B) 2) 15**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 2) 15.

QUESTION 51

Essay Assignment

A) Prompt: Some educators argue that traditional letter grades (A, B, C, D, F) should be replaced with narrative evaluations that provide detailed feedback on student performance. Others believe letter grades provide clear, objective measures of achievement that students, parents, and colleges need. Write an essay in which you take a position on whether schools should replace letter grades with narrative evaluations. Use specific reasons and examples to support your position.

B) Thesis Development: Your thesis should clearly state whether you support traditional letter grades, narrative evaluations, or possibly a hybrid approach. Consider addressing: the purpose of grading, stakeholder needs (students/parents/colleges), motivation and learning, objectivity versus personalization, and practical implementation.

C) Rubric Focus: Effective essays will (1) articulate a clear, defensible position, (2) provide specific, relevant examples and reasoning, (3) acknowledge and address counterarguments, (4) demonstrate coherent organization, and (5) use appropriate academic language and conventions.

D)

Correct Answer: A) Prompt: Some educators argue that traditional letter grades (A, B, C, D, F) should be replaced with narrative evaluations that provide detailed feedback on student performance. Others believe letter grades provide clear, objective measures of achievement that students, parents, and colleges need. Write an essay in which you take a position on whether schools should replace letter grades with narrative evaluations. Use specific reasons and examples to support your position.

Explanation: The correct answer is **A) Prompt: Some educators argue that traditional letter grades (A, B, C, D, F) should be replaced with narrative evaluations that provide detailed feedback on student performance. Others believe letter grades provide clear, objective measures of achievement that students, parents, and colleges need. Write an essay in which you take a position on whether schools should replace letter grades with narrative evaluations. Use specific reasons and examples to support your position.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

FULL CRC EXAM

TSIA2 Simulated Exam 19 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

The phenomenon of false memories demonstrates how malleable human memory truly is. In landmark studies by psychologist Elizabeth Loftus, participants were convinced they had experienced events that never occurred—from being lost in a shopping mall as a child to witnessing accidents that didn't happen. Memory is not a perfect recording but rather a reconstruction influenced by suggestion, bias, and subsequent information. The misinformation effect occurs when exposure to misleading information after an event distorts memory of the original event. In legal contexts, this has profound implications: eyewitness testimony, once considered the gold standard of evidence, can be remarkably unreliable. Leading questions, media coverage, and even the way police conduct lineups can contaminate memories. Despite feeling absolutely certain about memories, confidence does not correlate with accuracy. Our brains seamlessly weave together fragments of actual experience, imagination, and external suggestions into coherent narratives that feel completely real. The primary purpose of this passage is to:

A) 1) Criticize the legal system's reliance on eyewitness testimony

B) 2) Explain how memory reconstruction makes false memories possible

C) 3) Describe Elizabeth Loftus's research methodology

D) 4) Argue that all memories are equally unreliable

Correct Answer: B) 2) Explain how memory reconstruction makes false memories possible

Explanation: The correct answer is **B) 2) Explain how memory reconstruction makes false memories possible**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 2

According to the passage, the misinformation effect refers to:

A) 1) The tendency to forget information over time

B) 2) Distortion of memory caused by exposure to misleading information after an event

C) 3) The inability to form new memories

D) 4) Deliberately lying about past experiences

Correct Answer: B) 2) Distortion of memory caused by exposure to misleading information after an event

Explanation: The correct answer is **B) 2) Distortion of memory caused by exposure to misleading information after an event**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 3

The passage suggests that confidence in a memory:

A) 1) Guarantees its accuracy

B) 2) Has no relationship to whether the memory is true

C) 3) Only matters in legal proceedings

D) 4) Prevents the formation of false memories

Correct Answer: B) 2) Has no relationship to whether the memory is true

Explanation: The correct answer is **B) 2) Has no relationship to whether the memory is true**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '2) Has no relationship to whether the memory is true', making it the best-supported inference over the other options.

QUESTION 4

Which statement about memory is supported by the passage?

A) 1) Memory functions like a video recording of events

B) 2) Memory is a reconstructive process influenced by multiple factors

C) 3) Only traumatic memories are susceptible to distortion

D) 4) Children's memories are more reliable than adults'

Correct Answer: B) 2) Memory is a reconstructive process influenced by multiple factors

Explanation: The correct answer is **B) 2) Memory is a reconstructive process influenced by multiple factors**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. '2) Memory is a reconstructive process influenced by multiple factors' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 5

The author's mention of 'being lost in a shopping mall' serves to:

A) 1) Provide a specific example of a false memory that researchers successfully implanted

B) 2) Describe a common childhood trauma

C) 3) Illustrate the types of memories that are impossible to fabricate

D) 4) Explain why shopping malls are disorienting environments

Correct Answer: A) 1) Provide a specific example of a false memory that researchers successfully implanted

Explanation: The correct answer is **A) 1) Provide a specific example of a false memory that researchers successfully implanted**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 6

Based on the passage, what implication do false memories have for the legal system?

A) 1) All criminal cases should be dismissed

B) 2) Eyewitness testimony should be evaluated with caution and skepticism

C) 3) Police should avoid asking witnesses any questions

D) 4) Video evidence is also unreliable

Correct Answer: B) 2) Eyewitness testimony should be evaluated with caution and skepticism

Explanation: The correct answer is **B) 2) Eyewitness testimony should be evaluated with caution and skepticism**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 7

The gig economy—characterized by short-term contracts and freelance work rather than permanent employment—has fundamentally transformed labor markets. Platforms like Uber, TaskRabbit, and Upwork enable workers to find flexible opportunities and supplemental income. Proponents argue this model offers autonomy, allowing individuals to be their own bosses and set their own schedules. However, critics point out that gig workers lack traditional employment protections: no health insurance, retirement benefits, paid leave, or job security. They bear business expenses (vehicle maintenance, equipment) while companies classify them as independent contractors, avoiding employer obligations. This arrangement transfers economic risk from companies to individual workers. Income volatility is another concern—earnings fluctuate unpredictably, making financial planning difficult. As the gig economy expands, policymakers face challenging questions about how to protect workers while preserving the flexibility that attracts many to this employment model. The passage presents the gig economy as:

A) 1) Universally beneficial for all workers

B) 2) A complex system with both advantages and significant drawbacks

C) 3) An outdated employment model

D) 4) Exclusively exploitative of workers

Correct Answer: B) 2) A complex system with both advantages and significant drawbacks

Explanation: The correct answer is **B) 2) A complex system with both advantages and significant drawbacks**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 8

According to the passage, companies classify gig workers as independent contractors in order to:

A) 1) Provide workers with greater autonomy

B) 2) Avoid employer obligations like benefits and protections

C) 3) Increase worker earnings

D) 4) Improve service quality for customers

Correct Answer: B) 2) Avoid employer obligations like benefits and protections

Explanation: The correct answer is **B) 2) Avoid employer obligations like benefits and protections**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 9

Which of the following is NOT mentioned as a concern about gig work?

A) 1) Lack of health insurance

B) 2) Income volatility

C) 3) Workers bearing business expenses

D) 4) Excessive government regulation

Correct Answer: D) 4) Excessive government regulation

Explanation: The correct answer is **D) 4) Excessive government regulation**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 10

The phrase 'transfers economic risk from companies to individual workers' suggests that:

A) 1) Companies are eliminating all financial risks

B) 2) Workers assume the financial uncertainties that employers traditionally bore

C) 3) The economy is becoming more stable for everyone

D) 4) Gig platforms guarantee minimum earnings

Correct Answer: B) 2) Workers assume the financial uncertainties that employers traditionally bore

Explanation: The correct answer is **B) 2) Workers assume the financial uncertainties that employers traditionally bore**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 11

The passage indicates that policymakers face a challenge because:

A) 1) The gig economy is shrinking rapidly

B) 2) Workers unanimously oppose all gig work

C) 3) They must balance worker protection with the flexibility that attracts people to gig work

D) 4) Traditional employment has completely disappeared

Correct Answer: C) 3) They must balance worker protection with the flexibility that attracts people to gig work

Explanation: The correct answer is **C) 3) They must balance worker protection with the flexibility that attracts people to gig work**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 12

Magical realism, a literary genre that emerged prominently in Latin American literature, blends realistic narrative with magical elements presented as ordinary occurrences. Unlike fantasy, which creates entirely imaginary worlds, magical realism grounds fantastic events in realistic settings, treating the supernatural as mundane. In Gabriel García Márquez's 'One Hundred Years of Solitude,' characters ascend to heaven while hanging laundry and patriarch lives for over a century—yet these events are narrated with the same matter-of-fact tone as everyday activities. This technique serves multiple purposes: it challenges Western rationalist assumptions about reality, incorporates indigenous and folk belief systems often dismissed by colonial powers, and creates metaphorical space to address political and social issues. The genre's ambiguity—the refusal to explain magical events rationally—invites readers to question the boundaries between possible and impossible, real and imagined. According to the passage, magical realism differs from fantasy primarily because:

A) 1) It includes more supernatural elements

B) 2) It places magical events within realistic, ordinary settings

C) 3) It only appears in Latin American literature

D) 4) It explains magical occurrences scientifically

Correct Answer: B) 2) It places magical events within realistic, ordinary settings

Explanation: The correct answer is **B) 2) It places magical events within realistic, ordinary settings**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to '2) it places magical events within realistic, ordinary settings' as the dominant tone.

QUESTION 13

The author mentions García Márquez's 'One Hundred Years of Solitude' to:

A) 1) Prove that magical realism originated in Colombia

B) 2) Illustrate how magical events are narrated as ordinary occurrences

C) 3) Argue that the novel is historically inaccurate

D) 4) Demonstrate the superiority of magical realism over other genres

Correct Answer: B) 2) Illustrate how magical events are narrated as ordinary occurrences

Explanation: The correct answer is **B) 2) Illustrate how magical events are narrated as ordinary occurrences**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 14

Based on the passage, magical realism 'challenges Western rationalist assumptions' by:

A) 1) Providing scientific explanations for supernatural phenomena

B) 2) Treating magical events as equally valid as empirically verifiable ones

C) 3) Rejecting all forms of logical thinking

D) 4) Creating entirely imaginary worlds

Correct Answer: B) 2) Treating magical events as equally valid as empirically verifiable ones

Explanation: The correct answer is **B) 2) Treating magical events as equally valid as empirically verifiable ones**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 15

The passage suggests that magical realism incorporates indigenous belief systems in order to:

A) 1) Make literature more entertaining

B) 2) Validate perspectives often dismissed by colonial powers

C) 3) Confuse Western readers

D) 4) Avoid addressing political issues

Correct Answer: B) 2) Validate perspectives often dismissed by colonial powers

Explanation: The correct answer is **B) 2) Validate perspectives often dismissed by colonial powers**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '2) Validate perspectives often dismissed by colonial powers', making it the best-supported inference over the other options.

QUESTION 16

The 'ambiguity' of magical realism refers to:

A) 1) Poorly written narrative structure

B) 2) The intentional lack of rational explanation for magical events

C) 3) Confusion about the setting of stories

D) 4) Unclear character motivations

Correct Answer: B) 2) The intentional lack of rational explanation for magical events

Explanation: The correct answer is **B) 2) The intentional lack of rational explanation for magical events**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 17

Neuroplasticity—the brain's ability to reorganize itself by forming new neural connections—contradicts the once-held belief that adult brains are fixed and unchangeable. Research demonstrates that experiences, learning, and even thoughts can physically alter brain structure. London taxi drivers, who must memorize complex city layouts, show enlarged hippocampi (brain regions involved in spatial memory). Stroke patients can regain lost functions as healthy brain regions compensate for damaged areas. This adaptability has revolutionized approaches to education, rehabilitation, and mental health treatment. Which statement best expresses the main idea?

A) 1) London taxi drivers have superior memory abilities

B) 2) Brain plasticity allows the adult brain to change and adapt throughout life

C) 3) Stroke recovery is now completely predictable

D) 4) Childhood is the only period of significant brain development

Correct Answer: B) 2) Brain plasticity allows the adult brain to change and adapt throughout life

Explanation: The correct answer is **B) 2) Brain plasticity allows the adult brain to change and adapt throughout life**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 2) Brain plasticity allows the adult brain to change and adapt throughout life.

QUESTION 18

The software update, which it included significant security improvements, was released ahead of schedule. What is the error in this sentence?

A) 1) 'which it included' should be 'which included'

B) 2) 'was released' should be 'were released'

C) 3) Comma after 'update' is unnecessary

D) 4) No error

Correct Answer: A) 1) 'which it included' should be 'which included'

Explanation: The correct answer is **A) 1) 'which it included' should be 'which included'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

Each of the students were required to submit their final project by Friday afternoon. What is the error in this sentence?

A) 1) 'Each' should be 'All'

B) 2) 'were required' should be 'was required'

C) 3) 'their' should be 'his or her'

D) 4) Both 2 and 3

Correct Answer: D) 4) Both 2 and 3

Explanation: The correct answer is **D) 4) Both 2 and 3**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 20

The museum exhibit features artifacts from ancient Egypt, including pottery, jewelry, and containing sculptures from various dynasties. What is the error in this sentence?

A) 1) Lack of parallel structure—'containing sculptures' doesn't match the pattern

B) 2) 'features' should be 'feature'

C) 3) Comma before 'including' is incorrect

D) 4) No error

Correct Answer: A) 1) Lack of parallel structure—'containing sculptures' doesn't match the pattern

Explanation: The correct answer is **A) 1) Lack of parallel structure—'containing sculptures' doesn't match the pattern**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 21

[1] Climate change affects ecosystems worldwide. [2] Rising temperatures alter migration patterns. [3] My favorite season is autumn. [4] Ocean acidification threatens marine life. Which sentence should be removed to improve paragraph coherence?

A) 1) Sentence 1

B) 2) Sentence 2

C) 3) Sentence 3

D) 4) Sentence 4

Correct Answer: C) 3) Sentence 3

Explanation: The correct answer is **C) 3) Sentence 3**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 22

The conference will address issues such as: cybersecurity, data privacy, and artificial intelligence ethics. What is the error in this sentence?

A) 1) Colon after 'such as' is incorrect

B) 2) Commas should be semicolons

C) 3) 'will address' should be 'will have addressed'

D) 4) No error

Correct Answer: A) 1) Colon after 'such as' is incorrect

Explanation: The correct answer is **A) 1) Colon after 'such as' is incorrect**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 23

Having read the instructions carefully, the assignment was completed successfully by Marcus. What is the error in this sentence?

A) 1) Misplaced modifier—the assignment didn't read the instructions

B) 2) 'Having read' should be 'Having been reading'

C) 3) Passive voice is always incorrect

D) 4) No error

Correct Answer: A) 1) Misplaced modifier—the assignment didn't read the instructions

Explanation: The correct answer is **A) 1) Misplaced modifier—the assignment didn't read the instructions**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 24

The principle reason for the policy change was to improve workplace safety and reduce liability. What is the error in this sentence?

A) 1) 'principle' should be 'principal'

B) 2) 'was' should be 'were'

C) 3) 'improve' should be 'improving'

D) 4) No error

Correct Answer: A) 1) 'principle' should be 'principal'

Explanation: The correct answer is **A) 1) 'principle' should be 'principal'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 25

[1] Electric vehicles offer environmental benefits. [2] They produce zero direct emissions. [3] Battery technology continues to improve. [4] Therefore, range anxiety is decreasing among consumers. Which word or phrase could replace 'Therefore' in sentence 4 to better show the relationship?

A) 1) However,

B) 2) Additionally,

C) 3) Consequently,

D) 4) 'Therefore' is already the best choice

Correct Answer: D) 4) 'Therefore' is already the best choice

Explanation: The correct answer is **D) 4) 'Therefore' is already the best choice**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 26

The team played good, but they lost the championship game by a narrow margin. What is the error in this sentence?

A) 1) 'good' should be 'well'

B) 2) 'they' should be 'it'

C) 3) 'lost' should be 'had lost'

D) 4) No error

Correct Answer: A) 1) 'good' should be 'well'

Explanation: The correct answer is **A) 1) 'good' should be 'well'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 27

Due to the fact that enrollment has increased significantly, the college is planning to construct additional dormitories. Which revision improves conciseness?

A) 1) Because enrollment has increased significantly, the college is planning to construct additional dormitories.

B) 2) The college is planning to construct additional dormitories due to significant enrollment increases.

C) 3) Enrollment has increased significantly, and the college is planning to construct additional dormitories.

D) 4) Both 1 and 2

Correct Answer: D) 4) Both 1 and 2

Explanation: The correct answer is **D) 4) Both 1 and 2**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 28

The author's use of vivid imagery and symbolism create a haunting atmosphere throughout the novel. What is the error in this sentence?

A) 1) 'use' should be 'uses'

B) 2) 'create' should be 'creates'

C) 3) 'throughout' should be 'through'

D) 4) No error

Correct Answer: B) 2) 'create' should be 'creates'

Explanation: The correct answer is **B) 2) 'create' should be 'creates'**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey '2) 'create' should be 'creates''. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 29

Irregardless of the weather conditions, the ceremony will proceed as scheduled. What is the error in this sentence?

A) 1) 'Irregardless' should be 'Regardless'

B) 2) 'will proceed' should be 'will have proceeded'

C) 3) 'as scheduled' is redundant

D) 4) No error

Correct Answer: A) 1) 'Irregardless' should be 'Regardless'

Explanation: The correct answer is **A) 1) 'Irregardless' should be 'Regardless'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 30

The scientist's groundbreaking research in genetics has implications for medicine, agriculture, and how we understand human evolution. What is the error in this sentence?

A) 1) Lack of parallel structure—'how we understand human evolution' doesn't match the pattern

B) 2) 'has' should be 'have'

C) 3) 'in genetics' is misplaced

D) 4) No error

Correct Answer: A) 1) Lack of parallel structure—'how we understand human evolution' doesn't match the pattern

Explanation: The correct answer is **A) 1) Lack of parallel structure—'how we understand human evolution' doesn't match the pattern**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 31

A clothing store offers a 30% discount on all items. If a jacket originally costs $145, what is the sale price after the discount?

A) 1) $101.50

B) 2) $115.00

C) 3) $43.50

D) 4) $188.50

Correct Answer: A) 1) $101.50

Explanation: The correct answer is **A) 1) $101.50**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 32

A rectangular swimming pool is 25 meters long and 12 meters wide. If the pool is filled to an average depth of 2 meters, how many cubic meters of water does it hold?

A) 1) 300

B) 2) 600

C) 3) 450

D) 4) 150

Correct Answer: B) 2) 600

Explanation: The correct answer is **B) 2) 600**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 2) 600.

QUESTION 33

A train travels 180 miles in 2.5 hours. What is its average speed in miles per hour?

A) 1) 70 mph

B) 2) 72 mph

C) 3) 75 mph

D) 4) 80 mph

Correct Answer: B) 2) 72 mph

Explanation: The correct answer is **B) 2) 72 mph**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 2) 72 mph.

QUESTION 34

If 3/8 of a number is 27, what is the number?

A) 1) 54

B) 2) 64

C) 3) 72

D) 4) 81

Correct Answer: C) 3) 72

Explanation: The correct answer is **C) 3) 72**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 35

A population of bacteria doubles every 4 hours. If there are initially 500 bacteria, how many will there be after 12 hours?

A) 1) 2,000

B) 2) 4,000

C) 3) 6,000

D) 4) 8,000

Correct Answer: B) 2) 4,000

Explanation: The correct answer is **B) 2) 4,000**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 36

Solve for x: 5x - 8 = 3x + 14

A) 1) x = 7

B) 2) x = 11

C) 3) x = 3

D) 4) x = 22

Correct Answer: B) 2) x = 11

Explanation: The correct answer is **B) 2) x = 11**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 2) x = 11.

QUESTION 37

If $g(x) = -x^2 + 4x - 3$, what is g(2)?

A) 1) -3

B) 2) 1

C) 3) -7

D) 4) 5

Correct Answer: B) 2) 1

Explanation: The correct answer is **B) 2) 1**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 2) 1.

QUESTION 38

Solve the system: 2x + y = 10 and x - y = 2. What is the value of x?

A) 1) x = 2

B) 2) x = 3

C) 3) x = 4

D) 4) x = 5

Correct Answer: C) 3) x = 4

Explanation: The correct answer is **C) 3) x = 4**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 3) x = 4.

QUESTION 39

Which expression is equivalent to $(2a^3b^2)^3$?

A) 1) $6a^9b^6$

B) 2) $8a^6b^5$

C) 3) $8a^9b^6$

D) 4) $2a^9b^6$

Correct Answer: C) 3) $8a^9b^6$

Explanation: The correct answer is **C) 3) $8a^9b^6$**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 3) $8a^9b^6$.

QUESTION 40

What are the solutions to $x^2 - 5x - 14 = 0$?

A) 1) x = 7 and x = -2

B) 2) x = -7 and x = 2

C) 3) x = 7 and x = 2

D) 4) x = -7 and x = -2

Correct Answer: A) 1) x = 7 and x = -2

Explanation: The correct answer is **A) 1) x = 7 and x = -2**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 41

A square has a perimeter of 48 inches. What is its area in square inches?

A) 1) 144

B) 2) 192

C) 3) 576

D) 4) 2304

Correct Answer: A) 1) 144

Explanation: The correct answer is **A) 1) 144**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 1) 144.

QUESTION 42

The length of a rectangle is 3 times its width. If the perimeter is 64 cm, what is the width?

A) 1) 8 cm

B) 2) 12 cm

C) 3) 16 cm

D) 4) 24 cm

Correct Answer: A) 1) 8 cm

Explanation: The correct answer is **A) 1) 8 cm**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 1) 8 cm.

QUESTION 43

A cone has a radius of 6 cm and a height of 8 cm. What is its volume in cubic centimeters? Use $V = (1/3)\pi r^2 h$ and $\pi \approx 3.14$

A) 1) 150.72

B) 2) 301.44

C) 3) 452.16

D) 4) 602.88

Correct Answer: B) 2) 301.44

Explanation: The correct answer is **B) 2) 301.44**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 2) 301.44.

QUESTION 44

Two angles are supplementary. One angle measures 65°. What is the measure of the other angle?

A) 1) 25°

B) 2) 35°

C) 3) 115°

D) 4) 125°

Correct Answer: C) 3) 115°

Explanation: The correct answer is **C) 3) 115°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 3) 115°.

QUESTION 45

A triangle has sides of length 9 cm, 12 cm, and 15 cm. Is this a right triangle?

A) 1) Yes, because $9^2 + 12^2 = 15^2$

B) 2) No, because the sides don't satisfy the Pythagorean theorem

C) 3) Cannot be determined

D) 4) Yes, but only if the angle between the two shorter sides is 90°

Correct Answer: A) 1) Yes, because $9^2 + 12^2 = 15^2$

Explanation: The correct answer is **A) 1) Yes, because $9^2 + 12^2 = 15^2$**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 1) Yes, because $9^2 + 12^2 = 15^2$.

QUESTION 46

The mean of five numbers is 24. If four of the numbers are 18, 22, 25, and 30, what is the fifth number?

A) 1) 20

B) 2) 23

C) 3) 25

D) 4) 27

Correct Answer: C) 3) 25

Explanation: The correct answer is **C) 3) 25**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 3) 25.

QUESTION 47

A spinner has 8 equal sections: 3 red, 3 blue, and 2 green. What is the probability of spinning either red or green?

A) 1) 3/8

B) 2) 5/8

C) 3) 1/2

D) 4) 3/4

Correct Answer: B) 2) 5/8

Explanation: The correct answer is **B) 2) 5/8**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 2) 5/8.

QUESTION 48

A dataset has the following values: 5, 8, 12, 12, 15, 18, 20, 25. What is the mode?

A) 1) 5

B) 2) 8

C) 3) 12

D) 4) 13.125

Correct Answer: C) 3) 12

Explanation: The correct answer is **C) 3) 12**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives 3) 12.

QUESTION 49

In a normal distribution, what percentage of data falls within one standard deviation of the mean?

A) 1) 50%

B) 2) 68%

C) 3) 95%

D) 4) 99.7%

Correct Answer: B) 2) 68%

Explanation: The correct answer is **B) 2) 68%**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 2) 68%.

QUESTION 50

A survey of 150 people found that 42% prefer coffee over tea. How many people prefer coffee?

A) 1) 42

B) 2) 58

C) 3) 63

D) 4) 87

Correct Answer: C) 3) 63

Explanation: The correct answer is **C) 3) 63**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 3) 63.

QUESTION 51

Essay Assignment

A) Prompt: Advances in artificial intelligence have led to automation of many jobs traditionally performed by humans, from manufacturing to customer service to even some professional roles. Some argue this technological progress will create new opportunities and free humans for more creative work. Others worry about widespread unemployment and economic inequality. Write an essay in which you evaluate the impact of AI-driven automation on employment and society.

B) Thesis Development: Your thesis should present a clear position on whether AI automation is primarily beneficial, harmful, or complex in its effects. Consider: economic impacts, types of jobs affected, historical patterns of technological change, inequality and access, human adaptation and retraining, and potential societal benefits or risks.

C) Rubric Focus: Effective essays will (1) present a nuanced, well-reasoned position, (2) support claims with specific examples and logical reasoning, (3) demonstrate understanding of multiple perspectives, (4) organize ideas coherently with clear transitions, and (5) maintain appropriate academic tone and mechanics.

D)

Correct Answer: A) Prompt: Advances in artificial intelligence have led to automation of many jobs traditionally performed by humans, from manufacturing to customer service to even some professional roles. Some argue this technological progress will create new opportunities and free humans for more creative work. Others worry about widespread unemployment and economic inequality. Write an essay in which you evaluate the impact of AI-driven automation on employment and society.

Explanation: The correct answer is **A) Prompt: Advances in artificial intelligence have led to automation of many jobs traditionally performed by humans, from manufacturing to customer service to even some professional roles. Some argue this technological progress will create new opportunities and free humans for more creative work. Others worry about widespread unemployment and economic inequality. Write an essay in which you evaluate the impact of AI-driven automation on employment and society.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

FULL CRC EXAM

TSIA2 Simulated Exam 20 — 2026

51 Questions — Answer Key with Explanations

QUESTION 1

CRISPR-Cas9, a revolutionary gene-editing technology, allows scientists to make precise changes to DNA sequences. Adapted from a bacterial immune system that defends against viruses, CRISPR uses a guide RNA to locate specific genetic sequences and the Cas9 enzyme to cut the DNA at that location. Cells then repair the break, and during this process, genes can be disabled, corrected, or replaced. The technology has immense therapeutic potential: correcting genetic mutations causing diseases like sickle cell anemia, developing cancer treatments, and creating disease-resistant crops. However, CRISPR also raises profound ethical questions. Editing human embryos could eliminate genetic diseases but also enable 'designer babies' selected for traits like intelligence or appearance. Off-target effects—unintended edits elsewhere in the genome—pose safety risks. The technology's accessibility means it could be misused, and the long-term consequences of inherited genetic modifications remain unknown. As CRISPR becomes more powerful, society must grapple with where to draw ethical boundaries. The primary purpose of this passage is to:

A) 1) Explain how CRISPR technology works in technical detail

B) 2) Describe CRISPR's potential applications and ethical concerns

C) 3) Argue against all genetic modification

D) 4) Compare CRISPR to other gene-editing methods

Correct Answer: B) 2) Describe CRISPR's potential applications and ethical concerns

Explanation: The correct answer is **B) 2) Describe CRISPR's potential applications and ethical concerns**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 2

According to the passage, CRISPR-Cas9 was originally:

A) 1) Designed in a laboratory for medical purposes

B) 2) Adapted from a bacterial defense system against viruses

C) 3) Discovered in human embryos

D) 4) Created to produce designer babies

Correct Answer: B) 2) Adapted from a bacterial defense system against viruses

Explanation: The correct answer is **B) 2) Adapted from a bacterial defense system against viruses**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 3

The passage mentions 'designer babies' as an example of:

A) 1) A proven benefit of CRISPR technology

B) 2) An ethical concern raised by human embryo editing

C) 3) A medical treatment for genetic diseases

D) 4) An unlikely hypothetical scenario

Correct Answer: B) 2) An ethical concern raised by human embryo editing

Explanation: The correct answer is **B) 2) An ethical concern raised by human embryo editing**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 4

What are 'off-target effects' as described in the passage?

A) 1) Intended modifications to disease-causing genes

B) 2) Unintended genetic edits occurring at wrong locations

C) 3) The technology becoming accessible to more people

D) 4) Long-term inherited modifications

Correct Answer: B) 2) Unintended genetic edits occurring at wrong locations

Explanation: The correct answer is **B) 2) Unintended genetic edits occurring at wrong locations**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 5

The author's tone regarding CRISPR technology can best be described as:

A) 1) Unconditionally enthusiastic

B) 2) Completely opposed

C) 3) Balanced, acknowledging both promise and concerns

D) 4) Indifferent and neutral

Correct Answer: C) 3) Balanced, acknowledging both promise and concerns

Explanation: The correct answer is **C) 3) Balanced, acknowledging both promise and concerns**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to '3) balanced, acknowledging both promise and concerns' as the dominant tone.

QUESTION 6

Gerrymandering—the manipulation of electoral district boundaries to favor one party—undermines democratic representation. When state legislatures control redistricting, the party in power can draw districts to concentrate opposition voters in few areas or spread them thinly across many districts, diluting their influence. This creates 'packed' districts where one party wins by overwhelming margins and 'cracked' districts where opposition support is fragmented. The result is districts with bizarre shapes designed not for geographic or community coherence but for partisan advantage. Gerrymandering reduces electoral competition: incumbents in 'safe' districts face little challenge, decreasing accountability to voters. It can also produce legislatures that don't reflect the overall popular vote—a party might win fewer total votes statewide yet gain a majority of seats. Reform proposals include independent redistricting commissions, computer algorithms designed for fairness, and court intervention. However, any solution faces political resistance from those who benefit from the current system. According to the passage, 'packed' districts are those where:

A) 1) Opposition voters are spread thinly across many areas

B) 2) One party's voters are concentrated to create overwhelming victories in few districts

C) 3) Electoral boundaries follow geographic features

D) 4) Independent commissions draw the borders

Correct Answer: B) 2) One party's voters are concentrated to create overwhelming victories in few districts

Explanation: The correct answer is **B) 2) One party's voters are concentrated to create overwhelming victories in few districts**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. '2) One party's voters are concentrated to create overwhelming victories in few districts' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 7

The passage suggests that gerrymandering reduces electoral competition by:

A) 1) Increasing the number of political parties

B) 2) Creating 'safe' districts where incumbents face little challenge

C) 3) Making all districts equally competitive

D) 4) Ensuring legislatures reflect the popular vote

Correct Answer: B) 2) Creating 'safe' districts where incumbents face little challenge

Explanation: The correct answer is **B) 2) Creating 'safe' districts where incumbents face little challenge**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '2) Creating 'safe' districts where incumbents face little challenge', making it the best-supported inference over the other options.

QUESTION 8

Which is NOT mentioned as a proposed reform for gerrymandering?

A) 1) Independent redistricting commissions

B) 2) Computer algorithms designed for fairness

C) 3) Eliminating all district boundaries

D) 4) Court intervention

Correct Answer: C) 3) Eliminating all district boundaries

Explanation: The correct answer is **C) 3) Eliminating all district boundaries**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 9

The passage indicates that gerrymandering can result in:

A) 1) Legislatures that accurately reflect the statewide popular vote

B) 2) Districts with shapes designed for community coherence

C) 3) A party winning a majority of seats despite receiving fewer total votes

D) 4) Increased accountability of elected officials

Correct Answer: C) 3) A party winning a majority of seats despite receiving fewer total votes

Explanation: The correct answer is **C) 3) A party winning a majority of seats despite receiving fewer total votes**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 10

Why do reform efforts face 'political resistance'?

A) 1) Reforms are too expensive to implement

B) 2) Those who benefit from gerrymandering oppose changes

C) 3) Voters prefer the current system

D) 4) Geographic boundaries are impossible to change

Correct Answer: B) 2) Those who benefit from gerrymandering oppose changes

Explanation: The correct answer is **B) 2) Those who benefit from gerrymandering oppose changes**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 11

Food deserts—areas where residents lack access to affordable, nutritious food—disproportionately affect low-income and minority communities. These neighborhoods have few or no supermarkets within reasonable distance, instead offering primarily fast food and convenience stores with limited fresh produce. Multiple factors create food deserts: grocery chains avoid areas perceived as unprofitable, residents often lack personal transportation, and public transit may be inadequate. The health consequences are severe: higher rates of obesity, diabetes, and heart disease correlate strongly with limited access to healthy food. Children in food deserts face particular risks, as poor nutrition during development has lifelong effects. Proposed solutions include incentivizing supermarkets to open in underserved areas through tax breaks, supporting community gardens and farmers' markets, improving public transportation, and mobile grocery services. However, addressing food deserts requires tackling broader issues of poverty, urban planning, and economic inequality—challenges that extend beyond food access alone. The main idea of this passage is that:

A) 1) Food deserts are exclusively a rural problem

B) 2) Food deserts create health inequities and require multifaceted solutions

C) 3) All low-income communities are food deserts

D) 4) Convenience stores should be eliminated

Correct Answer: B) 2) Food deserts create health inequities and require multifaceted solutions

Explanation: The correct answer is **B) 2) Food deserts create health inequities and require multifaceted solutions**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. '2) Food deserts create health inequities and require multifaceted solutions' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 12

According to the passage, food deserts are characterized by:

A) 1) An abundance of supermarkets and fresh produce

B) 2) Primarily fast food and convenience stores with limited healthy options

C) 3) Equal distribution across all income levels

D) 4) Superior public transportation access

Correct Answer: B) 2) Primarily fast food and convenience stores with limited healthy options

Explanation: The correct answer is **B) 2) Primarily fast food and convenience stores with limited healthy options**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 13

Which factor is NOT mentioned as contributing to food deserts?

A) 1) Grocery chains avoiding areas seen as unprofitable

B) 2) Lack of personal transportation among residents

C) 3) Government regulations prohibiting supermarkets

D) 4) Inadequate public transit

Correct Answer: C) 3) Government regulations prohibiting supermarkets

Explanation: The correct answer is **C) 3) Government regulations prohibiting supermarkets**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 3) Government regulations prohibiting supermarkets.

QUESTION 14

The passage suggests that children in food deserts face particular risks because:

A) 1) They eat more fast food than adults

B) 2) Poor nutrition during development has lifelong consequences

C) 3) They have no access to any food

D) 4) Their parents don't care about nutrition

Correct Answer: B) 2) Poor nutrition during development has lifelong consequences

Explanation: The correct answer is **B) 2) Poor nutrition during development has lifelong consequences**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support '2) Poor nutrition during development has lifelong consequences', making it the best-supported inference over the other options.

QUESTION 15

The author's statement that addressing food deserts requires 'tackling broader issues' implies that:

A) 1) Food access is a simple problem with easy solutions

B) 2) Food deserts are symptoms of larger systemic problems like poverty and inequality

C) 3) Nothing can be done to improve food access

D) 4) Only government intervention can solve the problem

Correct Answer: B) 2) Food deserts are symptoms of larger systemic problems like poverty and inequality

Explanation: The correct answer is **B) 2) Food deserts are symptoms of larger systemic problems like poverty and inequality**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 16

The committee has not yet decided whether to approve the budget or should they request additional information. What is the error in this sentence?

A) 1) 'has not yet decided' should be 'have not yet decided'

B) 2) Lack of parallel structure—'to approve' doesn't match 'should they request'

C) 3) 'whether' should be 'if'

D) 4) No error

Correct Answer: B) 2) Lack of parallel structure—'to approve' doesn't match 'should they request'

Explanation: The correct answer is **B) 2) Lack of parallel structure—'to approve' doesn't match 'should they request'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 17

After months of preparation, the product launch was finally ready, and the marketing team felt confident. What is the grammatical structure of 'After months of preparation'?

A) 1) Independent clause

B) 2) Dependent clause

C) 3) Prepositional phrase

D) 4) Participial phrase

Correct Answer: C) 3) Prepositional phrase

Explanation: The correct answer is **C) 3) Prepositional phrase**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives 3) Prepositional phrase.

QUESTION 18

The data clearly shows that renewable energy adoption is accelerating across multiple sectors. What is the error in this sentence?

A) 1) 'data' is plural, so 'shows' should be 'show'

B) 2) 'clearly' is misplaced

C) 3) 'is accelerating' should be 'has been accelerating'

D) 4) No error

Correct Answer: A) 1) 'data' is plural, so 'shows' should be 'show'

Explanation: The correct answer is **A) 1) 'data' is plural, so 'shows' should be 'show'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 19

[1] Social media has transformed political campaigns. [2] Candidates now communicate directly with voters. [3] Traditional media's gatekeeping role has diminished. [4] Misinformation spreads rapidly on these platforms. What transition word should begin sentence 4 to show contrast?

A) 1) Furthermore,

B) 2) Consequently,

C) 3) However,

D) 4) Similarly,

Correct Answer: C) 3) However,

Explanation: The correct answer is **C) 3) However,**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option C best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 20

The novelist, whom critics widely regard as a literary genius, has published their tenth book this year. What is the error in this sentence?

A) 1) 'whom' should be 'who'

B) 2) 'their' should be 'his or her' for singular antecedent

C) 3) 'has published' should be 'have published'

D) 4) Both 1 and 2

Correct Answer: D) 4) Both 1 and 2

Explanation: The correct answer is **D) 4) Both 1 and 2**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 21

Being that the weather forecast predicted severe storms, the outdoor concert was postponed. Which revision improves this sentence?

A) 1) Since the weather forecast predicted severe storms, the outdoor concert was postponed.

B) 2) The weather forecast predicted severe storms, being that the outdoor concert was postponed.

C) 3) The outdoor concert was postponed, being that the weather forecast predicted severe storms.

D) 4) The sentence is already correct.

Correct Answer: A) 1) Since the weather forecast predicted severe storms, the outdoor concert was postponed.

Explanation: The correct answer is **A) 1) Since the weather forecast predicted severe storms, the outdoor concert was postponed.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 22

The professor explained the theory clear and provided relevant examples to illustrate key concepts. What is the error in this sentence?

A) 1) 'explained' should be 'explained to'

B) 2) 'clear' should be 'clearly'

C) 3) 'to illustrate' should be 'illustrating'

D) 4) No error

Correct Answer: B) 2) 'clear' should be 'clearly'

Explanation: The correct answer is **B) 2) 'clear' should be 'clearly'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 23

Neither the manager nor the employees was aware of the policy change until the memo was distributed. What is the error in this sentence?

A) 1) 'Neither...nor' should be 'Either...or'

B) 2) 'was aware' should be 'were aware'

C) 3) 'was distributed' should be 'were distributed'

D) 4) No error

Correct Answer: B) 2) 'was aware' should be 'were aware'

Explanation: The correct answer is **B) 2) 'was aware' should be 'were aware'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 24

The historical significance of the event cannot be understated, as it marked a turning point in the nation's development. What is the likely intended meaning issue?

A) 1) 'cannot be understated' should be 'cannot be overstated' (the significance is great, not small)

B) 2) 'marked' should be 'marks'

C) 3) 'event' should be plural

D) 4) No error

Correct Answer: A) 1) 'cannot be understated' should be 'cannot be overstated' (the significance is great, not small)

Explanation: The correct answer is **A) 1) 'cannot be understated' should be 'cannot be overstated' (the significance is great, not small)**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 1) 'cannot be understated' should be 'cannot be overstated' (the significance is great, not small).

QUESTION 25

[1] Renewable energy technologies are becoming more efficient. [2] Solar panels now convert sunlight to electricity at higher rates. [3] Wind turbines generate more power per unit. [4] Many countries are investing heavily in these technologies. Which sentence provides the best concluding statement?

A) 1) Therefore, fossil fuels will disappear immediately.

B) 2) Consequently, the transition to sustainable energy is accelerating globally.

C) 3) Solar and wind power were invented recently.

D) 4) These technologies have no environmental benefits.

Correct Answer: B) 2) Consequently, the transition to sustainable energy is accelerating globally.

Explanation: The correct answer is **B) 2) Consequently, the transition to sustainable energy is accelerating globally.**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option B best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 26

The reason why the experiment failed was because the temperature was not properly controlled. Which revision eliminates redundancy?

A) 1) The reason the experiment failed was that the temperature was not properly controlled.

B) 2) The experiment failed why the temperature was not properly controlled.

C) 3) The reason being the experiment failed was because of temperature.

D) 4) The sentence is already concise.

Correct Answer: A) 1) The reason the experiment failed was that the temperature was not properly controlled.

Explanation: The correct answer is **A) 1) The reason the experiment failed was that the temperature was not properly controlled.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 27

The documentary, which it explores climate change impacts, won several international awards. What is the error in this sentence?

A) 1) 'which it explores' should be 'which explores'

B) 2) 'won' should be 'wins'

C) 3) Comma after 'documentary' is incorrect

D) 4) No error

Correct Answer: A) 1) 'which it explores' should be 'which explores'

Explanation: The correct answer is **A) 1) 'which it explores' should be 'which explores'**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 28

The research team discovered a previously unknown species of butterfly in the remote rainforest ecosystem. Which element provides the most specific information?

A) 1) 'research team'

B) 2) 'previously unknown species'

C) 3) 'butterfly'

D) 4) 'remote rainforest ecosystem'

Correct Answer: B) 2) 'previously unknown species'

Explanation: The correct answer is **B) 2) 'previously unknown species'**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 29

Having carefully reviewed all the applications, a decision was made by the committee to interview five candidates. What is the error in this sentence?

A) 1) Dangling modifier—the committee should be the subject doing the reviewing

B) 2) 'was made' should be 'were made'

C) 3) 'to interview' should be 'for interviewing'

D) 4) No error

Correct Answer: A) 1) Dangling modifier—the committee should be the subject doing the reviewing

Explanation: The correct answer is **A) 1) Dangling modifier—the committee should be the subject doing the reviewing**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 30

The athlete's performance in the championship was remarkable; she broke three records and won two gold medals. What punctuation mark correctly connects these independent clauses?

A) 1) Comma

B) 2) Semicolon

C) 3) Colon

D) 4) Dash

Correct Answer: B) 2) Semicolon

Explanation: The correct answer is **B) 2) Semicolon**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option B as the only correctly punctuated version.

QUESTION 31

A restaurant bill totals $87.50 before tax. If sales tax is 8.5% and you want to leave a 20% tip on the pre-tax amount, what is the total amount you will pay?

A) 1) $112.44

B) 2) $114.94

C) 3) $117.50

D) 4) $105.00

Correct Answer: A) 1) $112.44

Explanation: The correct answer is **A) 1) $112.44**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 32

A car rental company charges $45 per day plus $0.25 per mile. If you rent a car for 3 days and drive 280 miles, what is the total cost?

A) 1) $135

B) 2) $205

C) 3) $215

D) 4) $155

Correct Answer: C) 3) $215

Explanation: The correct answer is **C) 3) $215**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 33

What is 35% of 240?

A) 1) 72

B) 2) 84

C) 3) 96

D) 4) 108

Correct Answer: B) 2) 84

Explanation: The correct answer is **B) 2) 84**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 34

A factory produces 1,250 units in 5 hours. At this rate, how many units will it produce in 8 hours?

A) 1) 1,800

B) 2) 2,000

C) 3) 2,250

D) 4) 2,500

Correct Answer: B) 2) 2,000

Explanation: The correct answer is **B) 2) 2,000**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 2) 2,000.

QUESTION 35

A savings account offers 3.2% annual interest compounded annually. If you deposit $8,000, what will the balance be after 2 years? Use A = P(1 + r)^t

A) 1) $8,512.00

B) 2) $8,519.68

C) 3) $8,256.00

D) 4) $8,524.29

Correct Answer: D) 4) $8,524.29

Explanation: The correct answer is **D) 4) $8,524.29**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 36

Solve for y: 4y + 7 = 2y - 11

A) 1) y = -9

B) 2) y = -3

C) 3) y = 3

D) 4) y = 9

Correct Answer: A) 1) y = -9

Explanation: The correct answer is **A) 1) y = -9**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 1) y = -9.

QUESTION 37

If $h(x) = 3x^2 - 2x + 5$, what is h(4)?

A) 1) 41

B) 2) 45

C) 3) 53

D) 4) 61

Correct Answer: B) 2) 45

Explanation: The correct answer is **B) 2) 45**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 38

Which equation represents a line with slope -2 passing through point (3, 5)?

A) 1) y = -2x + 11

B) 2) y = -2x - 11

C) 3) y = -2x + 1

D) 4) y = 2x - 1

Correct Answer: A) 1) y = -2x + 11

Explanation: The correct answer is **A) 1) y = -2x + 11**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option A.

QUESTION 39

Simplify: $(4x^3y^2) / (2xy^4)$

A) 1) $2x^2/y^2$

B) 2) $2x^2y^2$

C) 3) $4x^2/y^2$

D) 4) $2xy^2$

Correct Answer: A) 1) $2x^2/y^2$

Explanation: The correct answer is **A) 1) $2x^2/y^2$**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 1) $2x^2/y^2$.

QUESTION 40

If 5x - 3 > 17, what is the solution?

A) 1) x > 4

B) 2) x > 20

C) 3) x < 4

D) 4) x < 20

Correct Answer: A) 1) x > 4

Explanation: The correct answer is **A) 1) x > 4**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 41

A circle has a circumference of 50.24 inches. What is its radius? Use π ≈ 3.14

A) 1) 4 inches

B) 2) 6 inches

C) 3) 8 inches

D) 4) 10 inches

Correct Answer: C) 3) 8 inches

Explanation: The correct answer is **C) 3) 8 inches**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 3) 8 inches.

QUESTION 42

A rectangular prism has dimensions 6 cm × 8 cm × 10 cm. What is its volume?

A) 1) 240 cm³

B) 2) 360 cm³

C) 3) 480 cm³

D) 4) 600 cm³

Correct Answer: C) 3) 480 cm³

Explanation: The correct answer is **C) 3) 480 cm³**. Volume formulas: rectangular prism = l×w×h; cylinder = πr²h; cone = ⅓πr²h; sphere = (4/3)πr³. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 3) 480 cm³.

QUESTION 43

Two complementary angles are in the ratio 2:3. What is the measure of the larger angle?

A) 1) 36°

B) 2) 45°

C) 3) 54°

D) 4) 60°

Correct Answer: C) 3) 54°

Explanation: The correct answer is **C) 3) 54°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 3) 54°.

QUESTION 44

A triangle has a base of 14 cm and a height of 9 cm. What is its area?

A) 1) 63 cm²

B) 2) 126 cm²

C) 3) 23 cm²

D) 4) 46 cm²

Correct Answer: A) 1) 63 cm²

Explanation: The correct answer is **A) 1) 63 cm²**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 1) 63 cm².

QUESTION 45

The scale on a map is 1 inch = 25 miles. If two cities are 6.8 inches apart on the map, what is the actual distance between them?

A) 1) 150 miles

B) 2) 160 miles

C) 3) 170 miles

D) 4) 180 miles

Correct Answer: C) 3) 170 miles

Explanation: The correct answer is **C) 3) 170 miles**. The midpoint formula is M = ((x₁+x₂)/2, (y₁+y₂)/2); the distance formula is d = sqrt((x₂-x₁)² + (y₂-y₁)²). Substituting the given coordinates into the appropriate formula produces 3) 170 miles.

QUESTION 46

A dataset has values: 10, 12, 15, 18, 20, 22, 28, 30. What is the range?

A) 1) 18

B) 2) 20

C) 3) 22

D) 4) 28

Correct Answer: B) 2) 20

Explanation: The correct answer is **B) 2) 20**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 2) 20.

QUESTION 47

In a class of 35 students, 60% passed the exam on the first attempt. How many students passed?

A) 1) 18

B) 2) 20

C) 3) 21

D) 4) 24

Correct Answer: C) 3) 21

Explanation: The correct answer is **C) 3) 21**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 48

The mean of six numbers is 18. If five of the numbers are 12, 15, 18, 20, and 22, what is the sixth number?

A) 1) 18

B) 2) 19

C) 3) 20

D) 4) 21

Correct Answer: D) 4) 21

Explanation: The correct answer is **D) 4) 21**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 4) 21.

QUESTION 49

A bag contains 5 red marbles, 7 blue marbles, and 8 green marbles. What is the probability of randomly selecting a blue marble?

A) 1) 7/20

B) 2) 7/13

C) 3) 1/3

D) 4) 2/5

Correct Answer: A) 1) 7/20

Explanation: The correct answer is **A) 1) 7/20**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1) 7/20.

QUESTION 50

A normal distribution has a mean of 100 and standard deviation of 15. What value is exactly 1.5 standard deviations below the mean?

A) 1) 77.5

B) 2) 82.5

C) 3) 85

D) 4) 92.5

Correct Answer: A) 1) 77.5

Explanation: The correct answer is **A) 1) 77.5**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 1) 77.5.

QUESTION 51

Essay Assignment

A) Prompt: Many high schools are considering requiring students to complete community service hours as a graduation requirement. Supporters argue this builds civic responsibility and provides valuable real-world experience. Critics contend it creates logistical burdens, disadvantages students with limited time or transportation, and that mandatory service contradicts the spirit of volunteerism. Write an essay in which you argue for or against mandatory community service as a high school graduation requirement.

B) Thesis Development: Your thesis should clearly state your position on mandatory community service requirements. Consider: educational value and life skills development, civic engagement and responsibility, equity and accessibility issues, voluntary versus required service, implementation challenges, and alternative approaches to fostering community involvement.

C) Rubric Focus: Effective essays will (1) articulate a clear, defensible position with a strong thesis, (2) provide specific, relevant evidence and examples, (3) address counterarguments thoughtfully, (4) demonstrate logical organization and coherent development, and (5) use appropriate academic language with correct grammar and mechanics.

D)

Correct Answer: A) Prompt: Many high schools are considering requiring students to complete community service hours as a graduation requirement. Supporters argue this builds civic responsibility and provides valuable real-world experience. Critics contend it creates logistical burdens, disadvantages students with limited time or transportation, and that mandatory service contradicts the spirit of volunteerism. Write an essay in which you argue for or against mandatory community service as a high school graduation requirement.

Explanation: The correct answer is **A) Prompt: Many high schools are considering requiring students to complete community service hours as a graduation requirement. Supporters argue this builds civic responsibility and provides valuable real-world experience. Critics contend it creates logistical burdens, disadvantages students with limited time or transportation, and that mandatory service contradicts the spirit of volunteerism. Write an essay in which you argue for or against mandatory community service as a high school graduation requirement.**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

ELAR DIAGNOSTIC

TSIA2 ELAR Diagnostic Exam 1 — 2026

48 Questions — Answer Key with Explanations

QUESTION 1

Read the passage below. The wind had been whispering through the aspen trees all morning, carrying with it the scent of pine and distant rain. Maya stood at the edge of the meadow, her grandmother's journals clutched against her chest. Each page contained stories she had never heard—tales of migration, of leaving everything familiar behind. As she read about her grandmother's journey across the mountains decades ago, Maya realized that courage wasn't the absence of fear, but the willingness to move forward despite it. What is the central theme of this passage?

A) The importance of preserving family history

B) The beauty of natural landscapes in literature

C) Courage as perseverance in the face of fear

D) The challenges of intergenerational communication

Correct Answer: C) Courage as perseverance in the face of fear

Explanation: The correct answer is **C) Courage as perseverance in the face of fear**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 2

Read the excerpt from a short story. Marcus had always been the reliable one, the anchor in his family's turbulent sea. But as he sat in the airport terminal, boarding pass in hand, he felt the weight of that role slipping away. His mother's voice echoed in his mind: 'We need you here.' Yet the scholarship letter in his backpack promised a future he had only dreamed of. The departure gate loomed ahead like a threshold between two worlds. How does the author develop Marcus's internal conflict?

A) Through dialogue between Marcus and other characters

B) By contrasting the physical setting with Marcus's emotional state

C) Using metaphors that represent competing obligations

D) By describing Marcus's past decisions in detail

Correct Answer: C) Using metaphors that represent competing obligations

Explanation: The correct answer is **C) Using metaphors that represent competing obligations**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 3

Read the poem excerpt. 'The city sleeps in concrete dreams / While stars above go unnoticed, bright. / Steel towers pierce the clouded night / And down below, the river gleams.' Which literary device is most prominent in these lines?

A) Alliteration

B) Personification

C) Hyperbole

D) Simile

Correct Answer: B) Personification

Explanation: The correct answer is **B) Personification**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 4

Read the passage. The antique shop was a labyrinth of forgotten treasures, each object holding secrets from lives long past. Dust motes danced in the afternoon light, and the air smelled of old leather and cedar. In the back corner, beneath a tarnished mirror, Elena discovered a music box that played a melody she somehow recognized, though she was certain she had never heard it before. This moment of recognition would change everything. What narrative technique does the author use to create suspense?

A) Flashback to earlier events

B) Foreshadowing through suggestive details

C) Stream of consciousness narration

D) Unreliable narrator perspective

Correct Answer: B) Foreshadowing through suggestive details

Explanation: The correct answer is **B) Foreshadowing through suggestive details**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 5

Read the excerpt. 'Her laughter was like rain after a drought—unexpected, cleansing, and absolutely necessary. It filled the silent house with life again, reminding us all of what we had been missing during those long, gray months.' The figurative language in this passage primarily serves to:

A) Create a somber and melancholic mood

B) Emphasize the transformative power of joy

C) Establish the setting in a rural location

D) Develop a secondary character's perspective

Correct Answer: B) Emphasize the transformative power of joy

Explanation: The correct answer is **B) Emphasize the transformative power of joy**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'emphasize the transformative power of joy'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 6

Read the passage. The protagonist stood at the crossroads, literally and metaphorically. To the left, the familiar path led back to the village where generations of her family had lived and died without ever wondering what lay beyond the hills. To the right, an unmarked trail disappeared into dense forest, representing all the uncertainty and possibility of the unknown. She took a deep breath and stepped right. What does the physical crossroads symbolize in this passage?

A) The character's indecision about relationships

B) A choice between tradition and self-determination

C) The geographical features of the story's setting

D) The conflict between nature and civilization

Correct Answer: B) A choice between tradition and self-determination

Explanation: The correct answer is **B) A choice between tradition and self-determination**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'a choice between tradition and self-determination'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 7

Read the excerpt. The narrative began in medias res, dropping readers directly into the chaos of the evacuation. Only later, through carefully placed flashbacks, did the author reveal the series of small decisions and overlooked warnings that had led to this crisis. This structure allows the reader to experience the confusion of the characters while gradually understanding the larger pattern of cause and effect. What is the primary effect of this narrative structure?

A) It creates immediate tension while building understanding retrospectively

B) It allows for multiple narrators to tell different versions of events

C) It emphasizes the importance of chronological order in storytelling

D) It reduces the impact of the climactic moments in the plot

Correct Answer: A) It creates immediate tension while building understanding retrospectively

Explanation: The correct answer is **A) It creates immediate tension while building understanding retrospectively**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 8

Read the passage. 'I have built my house of cards,' she said quietly, 'and now I must live in it, however fragile it may be.' Her words hung in the air between us, heavy with the weight of choices that could not be unmade. The metaphor of the house of cards most effectively conveys:

A) The character's architectural knowledge

B) The temporary and precarious nature of her situation

C) Her interest in gambling and games

D) The complexity of her financial circumstances

Correct Answer: B) The temporary and precarious nature of her situation

Explanation: The correct answer is **B) The temporary and precarious nature of her situation**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'the temporary and precarious nature of her situation'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 9

Read the informational passage. Urban heat islands are metropolitan areas that experience significantly higher temperatures than their rural surroundings. This phenomenon results from the replacement of natural land cover with heat-absorbing surfaces like asphalt and concrete. Buildings, roads, and infrastructure absorb and re-emit solar heat more than natural landscapes such as forests and water bodies. According to the EPA, urban areas can be 1-7 degrees Fahrenheit warmer during the day and 2-5 degrees warmer at night than nearby rural areas. This temperature difference can affect energy consumption, air quality, and public health. What is the main idea of this passage?

A) Rural areas are preferable to urban environments for health reasons

B) Urban heat islands result from human-made surfaces that absorb more heat than natural landscapes

C) The EPA conducts important research on temperature variations

D) Climate change is caused primarily by urban development

Correct Answer: B) Urban heat islands result from human-made surfaces that absorb more heat than natural landscapes

Explanation: The correct answer is **B) Urban heat islands result from human-made surfaces that absorb more heat than natural landscapes**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Urban heat islands result from human-made surfaces that absorb more heat than natural landscapes' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 10

Read the passage. The art of manuscript illumination reached its zenith in medieval Europe, where monks painstakingly created elaborate decorations for religious texts. Using gold leaf, precious pigments derived from minerals and plants, and intricate geometric patterns, these artists transformed functional documents into objects of transcendent beauty. The process could take years for a single volume. Each illuminated letter required careful planning, precise brushwork, and deep spiritual devotion. These manuscripts served not only as sacred texts but also as displays of wealth and piety for their noble patrons. Which detail best supports the idea that manuscript illumination was time-intensive?

A) Monks created elaborate decorations for religious texts

B) The process could take years for a single volume

C) Artists used gold leaf and precious pigments

D) Manuscripts served as displays of wealth for patrons

Correct Answer: B) The process could take years for a single volume

Explanation: The correct answer is **B) The process could take years for a single volume**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'The process could take years for a single volume' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 11

Read the informational text. Coral reefs, often called the rainforests of the sea, support approximately 25% of all marine species despite covering less than 1% of the ocean floor. These complex ecosystems provide crucial services including coastal protection, fishery support, and potential pharmaceutical resources. However, coral reefs face unprecedented threats from ocean acidification, rising temperatures, pollution, and destructive fishing practices. Scientists estimate that if current trends continue, 90% of coral reefs could be severely degraded by 2050. Conservation efforts focus on reducing local stressors, establishing marine protected areas, and developing coral restoration techniques. What is the author's primary purpose?

A) To persuade readers to visit coral reefs before they disappear

B) To inform readers about the importance and threats facing coral reefs

C) To entertain readers with interesting facts about marine life

D) To criticize fishing industries for environmental damage

Correct Answer: B) To inform readers about the importance and threats facing coral reefs

Explanation: The correct answer is **B) To inform readers about the importance and threats facing coral reefs**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 12

Read the passage. The transition to renewable energy presents both opportunities and challenges for modern economies. Solar and wind power technologies have become increasingly cost-competitive with fossil fuels, and in some regions they now represent the cheapest source of new electricity generation. However, the intermittent nature of these energy sources requires significant investment in energy storage systems and grid infrastructure. Additionally, the shift away from fossil fuels necessitates workforce retraining programs and economic support for communities historically dependent on coal and oil industries. Successful energy transitions will require coordinated policy, technological innovation, and social investment. How is this passage primarily organized?

A) Chronologically, from past to present energy systems

B) By comparing and contrasting different energy sources

C) By presenting a situation and its associated challenges and solutions

D) Through cause and effect relationships in energy markets

Correct Answer: C) By presenting a situation and its associated challenges and solutions

Explanation: The correct answer is **C) By presenting a situation and its associated challenges and solutions**. Text structure describes how a writer arranges information — common patterns include cause/effect, compare/contrast, problem/solution, and chronological order. The sequence of ideas and transitional language in this passage most clearly reflects 'by presenting a situation and its associated challenges and solutions'.

QUESTION 13

Read the excerpt from an article. The concept of neuroplasticity—the brain's ability to reorganize itself by forming new neural connections throughout life—has revolutionized our understanding of learning and recovery from brain injury. Previously, scientists believed that brain structure was relatively fixed after early childhood. Research now demonstrates that the brain remains malleable, adapting to new experiences, learning, and even injury well into old age. This discovery has profound implications for education, rehabilitation, and cognitive health. Based on context clues, what does 'malleable' most likely mean?

A) Damaged or impaired

B) Capable of being shaped or changed

C) Fully developed and mature

D) Protected from external influences

Correct Answer: B) Capable of being shaped or changed

Explanation: The correct answer is **B) Capable of being shaped or changed**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Capable of being shaped or changed', making it the best-supported inference over the other options.

QUESTION 14

Read the informational passage. Indigenous agricultural practices, developed over millennia, offer valuable insights for sustainable farming in the 21st century. The 'Three Sisters' companion planting method, practiced by many Native American tribes, exemplifies this wisdom. Corn, beans, and squash are planted together in a mutually beneficial arrangement: corn provides a structure for beans to climb, beans fix nitrogen in the soil benefiting all three plants, and squash leaves create ground cover that retains moisture and suppresses weeds. This polyculture approach increases biodiversity, improves soil health, and produces more food per acre than monoculture farming while requiring fewer external inputs. What can be inferred from this passage?

A) Modern farming methods are always superior to traditional practices

B) The Three Sisters method can only be used by Native American farmers

C) Ancient agricultural techniques may offer solutions to contemporary challenges

D) Monoculture farming is more profitable than companion planting

Correct Answer: C) Ancient agricultural techniques may offer solutions to contemporary challenges

Explanation: The correct answer is **C) Ancient agricultural techniques may offer solutions to contemporary challenges**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Ancient agricultural techniques may offer solutions to contemporary challenges', making it the best-supported inference over the other options.

QUESTION 15

Read the passage. The Gutenberg printing press, invented around 1440, fundamentally transformed European society. Before this innovation, books were laboriously copied by hand, making them rare and expensive commodities accessible only to the wealthy and clergy. The printing press enabled mass production of texts, dramatically reducing costs and increasing availability. This democratization of knowledge contributed to the spread of literacy, the Protestant Reformation, the Scientific Revolution, and the eventual decline of feudal power structures. Few inventions have had such far-reaching social and intellectual consequences. What text structure does the author use to develop the main idea?

A) Problem and solution

B) Sequential process description

C) Cause and effect

D) Classification and definition

Correct Answer: C) Cause and effect

Explanation: The correct answer is **C) Cause and effect**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Cause and effect' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 16

Read the excerpt. Sleep deprivation has become a public health crisis in industrialized nations. Studies consistently show that insufficient sleep increases the risk of obesity, diabetes, cardiovascular disease, and mental health disorders. It impairs cognitive function, reduces productivity, and contributes to accidents. Despite this evidence, cultural attitudes often valorize 'burning the candle at both ends' and treat sleep as optional rather than essential. Public health initiatives must reframe sleep as a pillar of health alongside nutrition and exercise. What is the author's purpose in this passage?

A) To explain the biological mechanisms of sleep

B) To advocate for recognizing sleep as a critical health priority

C) To describe the history of sleep research

D) To compare sleep patterns across different cultures

Correct Answer: B) To advocate for recognizing sleep as a critical health priority

Explanation: The correct answer is **B) To advocate for recognizing sleep as a critical health priority**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 17

Read the informational text. Biomimicry, the practice of learning from and mimicking nature's strategies to solve human design challenges, has led to remarkable innovations. Velcro was inspired by burrs that stuck to a dog's fur. High-speed trains in Japan adopted the streamlined beak shape of kingfisher birds to reduce noise and increase efficiency. Architects studying termite mounds have designed buildings with natural ventilation systems that maintain comfortable temperatures without air conditioning. As we face complex sustainability challenges, biomimicry offers a problem-solving approach refined by 3.8 billion years of evolution. Which detail is LEAST relevant to the passage's main focus on biomimicry?

A) Velcro was inspired by burrs stuck to fur

B) Japanese trains adopted kingfisher beak shapes

C) Nature's strategies have been refined over billions of years

D) Air conditioning is used in many modern buildings

Correct Answer: D) Air conditioning is used in many modern buildings

Explanation: The correct answer is **D) Air conditioning is used in many modern buildings**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option D. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 18

Read the argument. Universal basic income (UBI) would provide every citizen with a guaranteed income regardless of employment status. Proponents argue this would reduce poverty, provide economic security during technological disruption, and simplify the welfare system. Critics contend that UBI would be prohibitively expensive, reduce work incentives, and cause inflation. A pilot program in Finland provided 2,000 unemployed citizens with monthly payments. Participants reported reduced stress and improved wellbeing, but employment rates did not significantly change compared to the control group. What is the main claim regarding UBI?

A) UBI successfully increased employment in Finland

B) UBI is a proposed policy with both potential benefits and significant concerns

C) UBI will definitely reduce poverty worldwide

D) Critics of UBI are incorrect in their economic analysis

Correct Answer: B) UBI is a proposed policy with both potential benefits and significant concerns

Explanation: The correct answer is **B) UBI is a proposed policy with both potential benefits and significant concerns**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to UBI is a proposed policy with both potential benefits and significant concerns.

QUESTION 19

Read the argumentative passage. Schools should eliminate letter grades and adopt narrative feedback systems. Traditional grading reduces complex learning to a single letter or number, encouraging students to focus on grades rather than genuine understanding. Research by educational psychologist Alfie Kohn demonstrates that grades diminish intrinsic motivation and promote surface learning strategies. Narrative feedback, by contrast, provides specific, actionable information about strengths and areas for improvement. Critics worry about college admissions and standardized assessment, but several progressive schools have successfully transitioned to feedback-based systems while maintaining strong college acceptance rates. Which statement represents a logical counterargument to this position?

A) All educational research supports the elimination of grades

B) Students prefer letter grades to written feedback

C) Standardized metrics may be necessary for fair comparison across diverse educational contexts

D) Alfie Kohn is not a credible researcher in education

Correct Answer: C) Standardized metrics may be necessary for fair comparison across diverse educational contexts

Explanation: The correct answer is **C) Standardized metrics may be necessary for fair comparison across diverse educational contexts**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Standardized metrics may be necessary for fair comparison across diverse educational contexts' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 20

Read the argument. The proliferation of social media has destroyed our capacity for deep reading and sustained attention. A study showed that heavy social media users performed worse on concentration tasks. Furthermore, everyone knows that people today have shorter attention spans than previous generations. We must limit social media use to protect our cognitive abilities. Which logical fallacy is present in this argument?

A) False dilemma

B) Ad hominem attack

C) Hasty generalization from limited evidence

D) Circular reasoning

Correct Answer: C) Hasty generalization from limited evidence

Explanation: The correct answer is **C) Hasty generalization from limited evidence**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives Hasty generalization from limited evidence.

QUESTION 21

Read the passage. Electric vehicles (EVs) represent the future of transportation and should receive continued government subsidies. EVs produce zero direct emissions, reducing urban air pollution and greenhouse gases. Battery technology is improving rapidly, extending range and reducing charging time. While critics point to the environmental cost of battery production and electricity generation, lifecycle analyses show that EVs have a lower overall carbon footprint than gasoline vehicles, even when accounting for manufacturing and power sources. As renewable energy becomes more prevalent, this advantage will only increase. Government support accelerates the transition to sustainable transportation. Which piece of evidence would most strengthen this argument?

A) A celebrity endorsement of electric vehicles

B) Data showing the percentage of consumers interested in EVs

C) Comparative cost analysis of EV ownership versus traditional vehicles over time

D) A description of how internal combustion engines work

Correct Answer: C) Comparative cost analysis of EV ownership versus traditional vehicles over time

Explanation: The correct answer is **C) Comparative cost analysis of EV ownership versus traditional vehicles over time**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Comparative cost analysis of EV ownership versus traditional vehicles over time' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 22

Read the argument. Artificial intelligence poses an existential threat to humanity and must be heavily regulated immediately. AI systems are becoming more powerful every year. If we don't act now, it will be too late. My neighbor lost his job to automation, proving that AI is harmful. We cannot allow technology companies to pursue profit at the expense of human survival. Which element of this argument most weakens its credibility?

A) The claim that AI is becoming more powerful

B) The reliance on personal anecdote as primary evidence

C) The call for immediate regulation

D) The suggestion that companies pursue profit

Correct Answer: B) The reliance on personal anecdote as primary evidence

Explanation: The correct answer is **B) The reliance on personal anecdote as primary evidence**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 23

Read the argumentative text. Mandatory voting, required by law in countries like Australia and Belgium, would strengthen democratic participation and representation. When voting is optional, turnout often skews toward older, wealthier, and more educated citizens, whose interests may not align with the broader population. Mandatory voting ensures that elected officials must consider the needs of all demographic groups. Critics argue this violates individual freedom, but citizens already have civic obligations like jury duty and paying taxes. The right to vote is also a responsibility. What assumption underlies the argument in favor of mandatory voting?

A) Younger citizens are incapable of making informed voting decisions

B) Higher voter turnout leads to more representative and responsive government

C) Australia and Belgium have superior political systems

D) Optional voting is a recent historical development

Correct Answer: B) Higher voter turnout leads to more representative and responsive government

Explanation: The correct answer is **B) Higher voter turnout leads to more representative and responsive government**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields Higher voter turnout leads to more representative and responsive government.

QUESTION 24

Read the passage. The four-day workweek should become standard practice. Companies that have implemented it report increased productivity, improved employee wellbeing, and reduced turnover. Workers with more rest and personal time are more focused and efficient during working hours. Either we adopt the four-day workweek, or we continue to burn out our workforce and see declining productivity. The choice is clear. What logical fallacy appears in this argument?

A) Slippery slope

B) False dilemma

C) Appeal to tradition

D) Straw man

Correct Answer: B) False dilemma

Explanation: The correct answer is **B) False dilemma**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'False dilemma' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 25

Read the argument. Space exploration is a waste of resources that should be directed toward solving problems here on Earth. We spend billions sending robots to Mars while people lack clean water and adequate healthcare. A recent poll showed 68% of respondents believe space funding should be reduced. This clearly demonstrates that space programs are not a priority for most citizens and should be defunded. Which best identifies a weakness in this reasoning?

A) The argument assumes space exploration and terrestrial problems are mutually exclusive priorities

B) The poll data is fabricated and unreliable

C) All space exploration is performed by robots

D) Healthcare is not actually a significant concern

Correct Answer: A) The argument assumes space exploration and terrestrial problems are mutually exclusive priorities

Explanation: The correct answer is **A) The argument assumes space exploration and terrestrial problems are mutually exclusive priorities**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives The argument assumes space exploration and terrestrial problems are mutually exclusive priorities.

QUESTION 26

Read the paragraph. (1) The local farmers market has become an important community gathering place. (2) People come to buy fresh produce. (3) The market features seasonal vegetables, artisanal breads, and locally produced honey. (4) Many shoppers arrive early to get the best selection. Which sentence should be added after sentence 3 to best support the main idea with specific evidence?

A) The market is open every Saturday morning from May through October.

B) One vendor reported selling over 200 jars of honey in a single morning, demonstrating strong community support.

C) Farmers markets exist in many communities across the country.

D) Fresh produce is healthier than processed foods.

Correct Answer: B) One vendor reported selling over 200 jars of honey in a single morning, demonstrating strong community support.

Explanation: The correct answer is **B) One vendor reported selling over 200 jars of honey in a single morning, demonstrating strong community support.**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'One vendor reported selling over 200 jars of honey in a single morning, demonstrating strong community support.' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 27

Read the draft. (1) Renewable energy sources are becoming more affordable. (2) Solar panel costs have decreased by 90% over the past decade. (3) Wind turbine efficiency has improved dramatically. (4) These technologies now compete economically with fossil fuels in many markets. (5) My neighbor installed solar panels last year. Which sentence should be deleted because it does not support the paragraph's focus on the economic competitiveness of renewable energy?

A) Sentence 2

B) Sentence 3

C) Sentence 4

D) Sentence 5

Correct Answer: D) Sentence 5

Explanation: The correct answer is **D) Sentence 5**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Sentence 5' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 28

Read the paragraph. (1) The restoration of the historic theater took three years and involved dozens of craftspeople. (2) Workers carefully removed layers of paint to reveal original decorative plasterwork. (3) Damaged ceiling frescoes were painstakingly restored using period-appropriate techniques and materials. (4) _____. (5) The theater reopened to great community celebration. Which sentence would best fit in the blank to maintain the paragraph's focus and logical flow?

A) Historic theaters are important cultural landmarks in many cities.

B) Electricians also updated the building's wiring to meet modern safety codes while preserving its aesthetic integrity.

C) The cost of the project was controversial among taxpayers.

D) Several other theaters in the region have undergone similar renovations.

Correct Answer: B) Electricians also updated the building's wiring to meet modern safety codes while preserving its aesthetic integrity.

Explanation: The correct answer is **B) Electricians also updated the building's wiring to meet modern safety codes while preserving its aesthetic integrity.**. Effective transitions connect ideas by signaling relationships such as contrast, addition, causation, or sequence. 'Electricians also updated the building's wiring to meet modern safety codes while preserving its aesthetic integrity.' provides the clearest logical link between the ideas presented, maintaining coherence without redundancy.

QUESTION 29

Read the draft. (1) Migration patterns of monarch butterflies represent one of nature's most remarkable phenomena. (2) Each fall, millions of monarchs travel up to 3,000 miles from North America to overwintering sites in Mexico. (3) However, habitat loss threatens this ancient migration. (4) Planting milkweed in gardens can help support monarch populations. Which revision to sentence 4 would best connect it logically to the previous sentence?

A) Therefore, planting milkweed in gardens can help support monarch populations.

B) In contrast, planting milkweed in gardens can help support monarch populations.

C) Similarly, planting milkweed in gardens can help support monarch populations.

D) For example, planting milkweed in gardens can help support monarch populations.

Correct Answer: A) Therefore, planting milkweed in gardens can help support monarch populations.

Explanation: The correct answer is **A) Therefore, planting milkweed in gardens can help support monarch populations.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 30

Read the paragraph. (1) The community garden project transformed an abandoned lot into a productive green space. (2) Volunteers cleared debris, built raised beds, and installed a rainwater collection system. (3) Within one growing season, the garden produced hundreds of pounds of vegetables. (4) These were distributed to families in need through the local food bank. (5) The garden also created a gathering place where neighbors could connect. Which revision would improve the paragraph's coherence by better connecting sentences 4 and 5?

A) Beyond addressing food insecurity, the garden also created a gathering place where neighbors could connect.

B) The garden also created a gathering place where neighbors could connect and discuss politics.

C) Instead, the garden also created a gathering place where neighbors could connect.

D) The garden created a gathering place where neighbors could connect to the internet.

Correct Answer: A) Beyond addressing food insecurity, the garden also created a gathering place where neighbors could connect.

Explanation: The correct answer is **A) Beyond addressing food insecurity, the garden also created a gathering place where neighbors could connect.**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 31

Read the draft. (1) Digital literacy has become as fundamental as traditional literacy in the 21st century. (2) Students need to evaluate online sources critically. (3) They must understand privacy and digital security. (4) Creating content and communicating effectively in digital environments are essential skills. (5) Schools have a responsibility to ensure all students develop these competencies. The writer wants to add a sentence after sentence 1 that provides specific evidence. Which choice best accomplishes this goal?

A) Many jobs require computer skills today.

B) According to a recent study, 87% of middle-skill jobs now require digital proficiency, yet many students lack formal training in these areas.

C) Students use technology every day in their personal lives.

D) Digital literacy is important for everyone to learn.

Correct Answer: B) According to a recent study, 87% of middle-skill jobs now require digital proficiency, yet many students lack formal training in these areas.

Explanation: The correct answer is **B) According to a recent study, 87% of middle-skill jobs now require digital proficiency, yet many students lack formal training in these areas.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 32

Which sentence demonstrates correct subject-verb agreement?

A) The collection of rare books are kept in a climate-controlled vault.

B) Each of the committee members have submitted their recommendations.

C) Neither the director nor the actors was satisfied with the final scene.

D) The data from the latest experiments suggest a need for protocol revision.

Correct Answer: D) The data from the latest experiments suggest a need for protocol revision.

Explanation: The correct answer is **D) The data from the latest experiments suggest a need for protocol revision.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option D is grammatically correct.

QUESTION 33

Which sentence uses pronouns correctly?

A) When a student completes their assignment early, they should review it carefully.

B) The research team presented its findings at the international conference.

C) Everyone should bring their laptop to the workshop tomorrow.

D) Each participant were asked to sign their consent form.

Correct Answer: B) The research team presented its findings at the international conference.

Explanation: The correct answer is **B) The research team presented its findings at the international conference.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option B uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 34

Which sentence demonstrates correct verb tense consistency?

A) She walks into the room, sat down, and begins to read the document.

B) The archaeologists discovered the site in 2019 and have been excavating it ever since.

C) By the time we arrived, the presentation already started and was nearly finished.

D) He will complete the report yesterday and submits it to his supervisor.

Correct Answer: B) The archaeologists discovered the site in 2019 and have been excavating it ever since.

Explanation: The correct answer is **B) The archaeologists discovered the site in 2019 and have been excavating it ever since.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 35

Which sentence exhibits proper parallel structure?

A) The job requires attention to detail, working independently, and you must communicate well.

B) The new policy aims to increase efficiency, reduce costs, and improving employee satisfaction.

C) Successful candidates demonstrate strong analytical skills, effective communication, and the ability to work collaboratively.

D) The workshop will cover how to write clearly, presenting effectively, and to manage time.

Correct Answer: C) Successful candidates demonstrate strong analytical skills, effective communication, and the ability to work collaboratively.

Explanation: The correct answer is **C) Successful candidates demonstrate strong analytical skills, effective communication, and the ability to work collaboratively.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option C maintains consistent grammatical form across all listed or compared elements.

QUESTION 36

Which sentence correctly places modifiers?

A) Walking through the museum, the ancient artifacts fascinated the students.

B) The professor explained the theory to the students that had revolutionized physics.

C) Nearly exhausted from the hike, the summit finally came into view for the climbers.

D) Having studied the map carefully, the explorers navigated through the unfamiliar terrain.

Correct Answer: D) Having studied the map carefully, the explorers navigated through the unfamiliar terrain.

Explanation: The correct answer is **D) Having studied the map carefully, the explorers navigated through the unfamiliar terrain.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 37

Which sentence uses the correct pronoun case?

A) Between you and I, this proposal needs significant revision.

B) The award was presented to Maya and he at the ceremony.

C) Whom do you think should receive the scholarship?

D) The collaboration between her and I produced excellent results.

Correct Answer: C) Whom do you think should receive the scholarship?

Explanation: The correct answer is **C) Whom do you think should receive the scholarship?**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option C uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 38

Which sentence uses commas correctly?

A) The conference which was held in Chicago attracted scholars from around the world.

B) After reviewing all the applications the committee selected three finalists.

C) The museum's new exhibit, featuring works from the Renaissance, opens next month.

D) My sister who lives in Seattle, is a marine biologist.

Correct Answer: C) The museum's new exhibit, featuring works from the Renaissance, opens next month.

Explanation: The correct answer is **C) The museum's new exhibit, featuring works from the Renaissance, opens next month.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

QUESTION 39

Which sentence demonstrates correct use of semicolons?

A) The experiment yielded unexpected results; however; we need to replicate it before drawing conclusions.

B) The team included researchers from various fields; biology, chemistry, and physics.

C) Funding remains uncertain; therefore, we must develop contingency plans.

D) The manuscript requires revision; it must be resubmitted by Friday; and needs approval from the review board.

Correct Answer: C) Funding remains uncertain; therefore, we must develop contingency plans.

Explanation: The correct answer is **C) Funding remains uncertain; therefore, we must develop contingency plans.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

QUESTION 40

Which sentence uses apostrophes correctly?

A) The childrens' toys were scattered across the playroom floor.

B) Its important to verify the documents accuracy before submission.

C) The committee's decision reflected weeks of careful deliberation.

D) Three students projects were selected for the regional competition.

Correct Answer: C) The committee's decision reflected weeks of careful deliberation.

Explanation: The correct answer is **C) The committee's decision reflected weeks of careful deliberation.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

QUESTION 41

Which sentence correctly uses a colon?

A) The recipe requires: flour, sugar, eggs, and vanilla extract.

B) She had one goal in mind: to complete her dissertation by spring.

C) The cities visited included: Paris, Rome, and Barcelona.

D) We need to: review the data, analyze the trends, and prepare a report.

Correct Answer: B) She had one goal in mind: to complete her dissertation by spring.

Explanation: The correct answer is **B) She had one goal in mind: to complete her dissertation by spring.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option B as the only correctly punctuated version.

QUESTION 42

Which option corrects the sentence boundary error? The presentation was well-received, it generated substantial discussion afterward.

A) The presentation was well-received it generated substantial discussion afterward.

B) The presentation was well-received; it generated substantial discussion afterward.

C) The presentation was well-received and, it generated substantial discussion afterward.

D) The presentation, was well-received, it generated substantial discussion afterward.

Correct Answer: B) The presentation was well-received; it generated substantial discussion afterward.

Explanation: The correct answer is **B) The presentation was well-received; it generated substantial discussion afterward.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 43

Which sentence correctly punctuates a complex sentence with multiple elements?

A) Although the weather was poor the team continued working and they completed the survey on schedule.

B) Although, the weather was poor, the team continued working, and they completed the survey, on schedule.

C) Although the weather was poor, the team continued working, and they completed the survey on schedule.

D) Although the weather was poor, the team continued working and, they completed the survey on schedule.

Correct Answer: C) Although the weather was poor, the team continued working, and they completed the survey on schedule.

Explanation: The correct answer is **C) Although the weather was poor, the team continued working, and they completed the survey on schedule.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 44

Which revision most effectively combines these sentences? The library expanded its digital resources. This expansion occurred over the past year. Students now have access to thousands of academic journals.

A) The library expanded its digital resources over the past year, and students now have access to thousands of academic journals.

B) Over the past year, the library's expansion of digital resources has given students access to thousands of academic journals.

C) The library expanded, this was over the past year, its digital resources, giving students access now to thousands of academic journals.

D) Students now have access to thousands of academic journals because the library expanded its digital resources over the past year.

Correct Answer: B) Over the past year, the library's expansion of digital resources has given students access to thousands of academic journals.

Explanation: The correct answer is **B) Over the past year, the library's expansion of digital resources has given students access to thousands of academic journals.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 45

Which version most effectively eliminates wordiness? In my personal opinion, I believe that the new policy, which was just recently implemented, is going to improve the overall efficiency of the organization in general.

A) In my opinion, the new policy will improve organizational efficiency.

B) I believe that the recently implemented policy will improve the organization's efficiency.

C) The recently implemented policy will improve organizational efficiency.

D) It is my personal belief that the new policy is going to improve efficiency.

Correct Answer: C) The recently implemented policy will improve organizational efficiency.

Explanation: The correct answer is **C) The recently implemented policy will improve organizational efficiency.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 46

Which sentence most effectively uses active voice to clarify agency?

A) The groundbreaking discovery was made by the research team after years of investigation.

B) After years of investigation, the groundbreaking discovery was made.

C) After years of investigation, the research team made the groundbreaking discovery.

D) The groundbreaking discovery, after years of investigation, was made by researchers.

Correct Answer: C) After years of investigation, the research team made the groundbreaking discovery.

Explanation: The correct answer is **C) After years of investigation, the research team made the groundbreaking discovery.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 47

Which revision best combines these sentences while maintaining clarity? The novel explores themes of identity. It also examines cultural displacement. The author draws on personal experience. This experience spans two continents.

A) The novel explores themes of identity and cultural displacement, with the author drawing on personal experience spanning two continents.

B) The novel explores themes of identity and examines cultural displacement, and the author draws on personal experience, which spans two continents.

C) Exploring themes of identity, the novel also examines cultural displacement, the author draws on personal experience spanning two continents.

D) The novel explores identity and cultural displacement themes, the author's personal two-continent experience is drawn upon.

Correct Answer: A) The novel explores themes of identity and cultural displacement, with the author drawing on personal experience spanning two continents.

Explanation: The correct answer is **A) The novel explores themes of identity and cultural displacement, with the author drawing on personal experience spanning two continents.**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 48

Which sentence uses the most precise and concise language?

A) Due to the fact that there was a significant amount of rain, the game was postponed to a later date.

B) Because of heavy rain, the game was postponed.

C) The game was postponed to another time due to the fact that it rained a lot.

D) On account of the rain that fell heavily, the game experienced postponement.

Correct Answer: B) Because of heavy rain, the game was postponed.

Explanation: The correct answer is **B) Because of heavy rain, the game was postponed.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

ELAR DIAGNOSTIC

TSIA2 ELAR Diagnostic Exam 2 — 2026

48 Questions — Answer Key with Explanations

QUESTION 1

Read the passage. The old lighthouse keeper's journal spoke of lights that appeared on moonless nights, dancing above the water where no ship had any right to be. Jonas had dismissed these entries as the rambling of a lonely man, until the night he saw them himself—pale orbs that moved with intention, tracing patterns against the darkness. He realized then that some mysteries were never meant to be solved, only witnessed. What mood does the author create through descriptive details?

A) Romantic and sentimental

B) Mysterious and unsettling

C) Humorous and lighthearted

D) Angry and confrontational

Correct Answer: B) Mysterious and unsettling

Explanation: The correct answer is **B) Mysterious and unsettling**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'mysterious and unsettling' as the dominant tone.

QUESTION 2

Read the excerpt from a novel. Autumn had always measured her life in seasons—not the calendar kind, but seasons of becoming. There was the season of silence after her father left, the season of discovery when she found her voice through music, the season of leaving when college took her across the country. Now, standing in her childhood bedroom with acceptance letters scattered across the bed, she sensed another season beginning, though she couldn't yet name it. How does the seasonal metaphor develop the character's perspective?

A) It emphasizes her interest in meteorology and climate

B) It reveals her cyclical view of personal growth and change

C) It demonstrates her preference for autumn over other seasons

D) It shows her confusion about the passage of time

Correct Answer: B) It reveals her cyclical view of personal growth and change

Explanation: The correct answer is **B) It reveals her cyclical view of personal growth and change**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'it reveals her cyclical view of personal growth and change'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 3

Read the poem excerpt. 'Silence settles soft as snow, / Covering the city's ancient scars. / Memory sleeps beneath the weight / Of winter's clean, forgetful white.' What is the primary function of the extended metaphor in these lines?

A) To celebrate the beauty of winter weather

B) To suggest that snow obscures both physical and historical marks

C) To criticize the city's maintenance during winter

D) To describe the narrator's favorite season

Correct Answer: B) To suggest that snow obscures both physical and historical marks

Explanation: The correct answer is **B) To suggest that snow obscures both physical and historical marks**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives To suggest that snow obscures both physical and historical marks.

QUESTION 4

Read the passage. The train station at dawn held a peculiar magic. Strangers became temporary companions, sharing coffee and silence before their paths diverged. Maria watched a businessman help an elderly woman with her luggage, a student share headphones with a child, and realized that departure points were also, paradoxically, places of connection. These brief encounters contained entire stories she would never know. What insight does the protagonist gain?

A) Train stations are poorly designed for modern travelers

B) Transient spaces can foster unexpected human connection

C) Traveling by train is preferable to other transportation methods

D) Morning is the best time for conducting business

Correct Answer: B) Transient spaces can foster unexpected human connection

Explanation: The correct answer is **B) Transient spaces can foster unexpected human connection**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Transient spaces can foster unexpected human connection' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 5

Read the excerpt. The town existed in a permanent state of almost. Almost prosperous, when the mill was running. Almost abandoned, after it closed. Almost forgotten, except by those who stayed behind, tending their almost-gardens in the almost-fertile soil, raising children who would almost certainly leave, just as they had almost left themselves, years ago. The repetition of 'almost' primarily serves to:

A) Create a rhythmic, poetic quality in the prose

B) Emphasize the town's state of perpetual incompleteness and unrealized potential

C) Demonstrate the narrator's limited vocabulary

D) Suggest that the town will soon experience revival

Correct Answer: B) Emphasize the town's state of perpetual incompleteness and unrealized potential

Explanation: The correct answer is **B) Emphasize the town's state of perpetual incompleteness and unrealized potential**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 6

Read the passage. In the story's climactic scene, the protagonist must choose between revealing a truth that would destroy her family's reputation or remaining silent to protect those she loves. The author places this moment in a courtroom, with the protagonist literally standing between the witness box and the exit, frozen in physical space as she is frozen in moral space. What literary technique is the author employing?

A) Flashback

B) Symbolism through physical positioning

C) Stream of consciousness

D) Unreliable narration

Correct Answer: B) Symbolism through physical positioning

Explanation: The correct answer is **B) Symbolism through physical positioning**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 7

Read the excerpt. 'Time,' she said, stirring her tea with deliberate slowness, 'is not a river that carries us along, but a ocean in which we're always swimming, sometimes against the current, sometimes with it, and sometimes simply treading water to keep from drowning.' This figurative language suggests that:

A) The character believes humans have some agency in their relationship with time

B) Rivers are less important than oceans in literature

C) The character is an experienced swimmer

D) Time moves in only one direction without exception

Correct Answer: A) The character believes humans have some agency in their relationship with time

Explanation: The correct answer is **A) The character believes humans have some agency in their relationship with time**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'the character believes humans have some agency in their relationship with time'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 8

Read the passage. The narrative structure spirals inward, each chapter bringing the reader closer to the central event that shaped the protagonist's life. Like an archaeologist excavating layers of earth, the author removes temporal strata—adulthood, adolescence, childhood—until reaching the bedrock moment of trauma. Only then, with full context established, does the story spiral outward again, showing how that moment rippled through every subsequent year. What is the primary effect of this narrative structure?

A) It confuses readers and makes the plot difficult to follow

B) It builds suspense while demonstrating how past events shape identity

C) It allows for multiple narrators to tell conflicting stories

D) It reduces the emotional impact of the central event

Correct Answer: B) It builds suspense while demonstrating how past events shape identity

Explanation: The correct answer is **B) It builds suspense while demonstrating how past events shape identity**. When determining word meaning from context, look at the surrounding sentences for synonyms, antonyms, or examples that clarify the word's usage. The context in this passage indicates the word means 'it builds suspense while demonstrating how past events shape identity', which fits the logical flow of the passage.

QUESTION 9

Read the excerpt. The antagonist was not a villain in the traditional sense—no cackling evil or conscious cruelty. Rather, he embodied the danger of good intentions twisted by certainty, of compassion corrupted into control. He genuinely believed he was helping, which made him far more dangerous than any mere villain could be. This characterization suggests that:

A) Traditional villains are more interesting than complex antagonists

B) The antagonist lacks any moral foundation for his actions

C) Moral certainty without self-examination can lead to harmful actions

D) Good intentions always lead to positive outcomes

Correct Answer: C) Moral certainty without self-examination can lead to harmful actions

Explanation: The correct answer is **C) Moral certainty without self-examination can lead to harmful actions**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Moral certainty without self-examination can lead to harmful actions', making it the best-supported inference over the other options.

QUESTION 10

Read the informational passage. Microplastics—plastic fragments smaller than 5 millimeters—have infiltrated virtually every ecosystem on Earth. These particles originate from the breakdown of larger plastic items, synthetic clothing fibers, and microbeads in personal care products. Researchers have found microplastics in Arctic ice, deep ocean trenches, agricultural soil, and even human tissue. The long-term health effects remain unknown, but studies suggest microplastics can absorb toxic chemicals and may disrupt biological processes. Addressing this pervasive pollution requires reducing plastic production, improving waste management, and developing biodegradable alternatives. What is the primary organizational pattern of this passage?

A) Chronological sequence of events

B) Spatial description from general to specific

C) Problem identification with potential solutions

D) Comparison and contrast of different materials

Correct Answer: C) Problem identification with potential solutions

Explanation: The correct answer is **C) Problem identification with potential solutions**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Problem identification with potential solutions', making it the best-supported inference over the other options.

QUESTION 11

Read the passage. The Human Genome Project, completed in 2003, mapped all approximately 20,000-25,000 genes in human DNA. This international collaborative effort took 13 years and cost nearly $3 billion. The project has revolutionized medicine, enabling personalized treatments based on genetic profiles, early detection of disease susceptibilities, and deeper understanding of human evolution. However, it has also raised ethical questions about genetic privacy, discrimination, and the potential for genetic enhancement. Which detail best supports the idea that the Human Genome Project was a major scientific undertaking?

A) The project raised ethical questions about privacy

B) It took 13 years and cost nearly $3 billion to complete

C) The project was completed in 2003

D) Medicine has been revolutionized by various discoveries

Correct Answer: B) It took 13 years and cost nearly $3 billion to complete

Explanation: The correct answer is **B) It took 13 years and cost nearly $3 billion to complete**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'It took 13 years and cost nearly $3 billion to complete' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 12

Read the informational text. Vertical farming uses stacked layers in controlled indoor environments to grow crops year-round. LED lights provide optimized wavelengths for photosynthesis, hydroponic or aeroponic systems deliver nutrients directly to roots, and climate control eliminates weather-related crop failures. Vertical farms can produce yields up to 100 times greater per square foot than traditional agriculture while using 95% less water and no pesticides. Despite high initial infrastructure costs, this technology offers solutions for food security in urban areas and regions with limited arable land. What is the author's primary purpose?

A) To persuade investors to fund vertical farming ventures

B) To explain the benefits and methods of vertical farming technology

C) To criticize traditional agricultural practices

D) To entertain readers with futuristic farming concepts

Correct Answer: B) To explain the benefits and methods of vertical farming technology

Explanation: The correct answer is **B) To explain the benefits and methods of vertical farming technology**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 13

Read the passage. Language extinction occurs when a language loses its last native speakers. Linguists estimate that one language disappears every two weeks, and by 2100, half of the world's approximately 7,000 languages may be extinct. When a language dies, unique cultural knowledge, oral histories, and ways of understanding the world are lost. Indigenous languages, in particular, often contain ecological knowledge developed over millennia. Language revitalization efforts include immersion schools, digital documentation, and community-led preservation programs. Based on context clues, what does 'revitalization' most likely mean?

A) Complete replacement with a modern language

B) The process of bringing back to active use or life

C) Translation into more widely spoken languages

D) Scientific study and classification

Correct Answer: B) The process of bringing back to active use or life

Explanation: The correct answer is **B) The process of bringing back to active use or life**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'The process of bringing back to active use or life', making it the best-supported inference over the other options.

QUESTION 14

Read the informational passage. The placebo effect demonstrates the powerful connection between mind and body. When patients believe they are receiving treatment, they often experience real physiological improvements, even when given inert substances. Brain imaging shows that placebos can trigger the release of endorphins and activate the same neural pathways as actual medications. This phenomenon has profound implications for medical practice, clinical trial design, and our understanding of healing. Ethical use of placebo effects focuses on enhancing treatment through positive expectations rather than deception. What can be inferred from this passage?

A) Placebo effects only work on patients who are easily deceived

B) Patient expectations and beliefs can produce measurable biological changes

C) Real medications are no more effective than placebos

D) The placebo effect has no legitimate place in modern medicine

Correct Answer: B) Patient expectations and beliefs can produce measurable biological changes

Explanation: The correct answer is **B) Patient expectations and beliefs can produce measurable biological changes**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Patient expectations and beliefs can produce measurable biological changes', making it the best-supported inference over the other options.

QUESTION 15

Read the passage. The Renaissance, spanning roughly the 14th to 17th centuries, marked a period of profound cultural transformation in Europe. Classical Greek and Roman texts, preserved by Islamic scholars, were reintroduced to European intellectuals. This revival of ancient knowledge, combined with innovations in art, science, and philosophy, fundamentally altered Western thought. Humanism emerged as a central philosophy, emphasizing human potential and achievement. Artists like Leonardo da Vinci and Michelangelo created works of unprecedented realism and emotional depth. The invention of the printing press accelerated the spread of ideas, contributing to the Reformation and Scientific Revolution. How is this passage primarily organized?

A) Chronological order of specific events

B) Cause and effect relationships

C) Comparison of different time periods

D) Classification of artistic movements

Correct Answer: B) Cause and effect relationships

Explanation: The correct answer is **B) Cause and effect relationships**. Text structure describes how a writer arranges information — common patterns include cause/effect, compare/contrast, problem/solution, and chronological order. The sequence of ideas and transitional language in this passage most clearly reflects 'cause and effect relationships'.

QUESTION 16

Read the excerpt from an article. Cognitive behavioral therapy (CBT) has emerged as one of the most effective treatments for depression and anxiety disorders. Unlike psychoanalysis, which focuses on unconscious conflicts and childhood experiences, CBT addresses current thought patterns and behaviors. The therapeutic approach teaches patients to identify distorted thinking, challenge negative beliefs, and develop healthier coping strategies. Numerous studies demonstrate that CBT produces outcomes comparable to medication for many conditions, with lower relapse rates. What is the author's purpose in this passage?

A) To criticize psychoanalysis as an outdated approach

B) To inform readers about CBT's methods and effectiveness

C) To persuade all patients to choose CBT over medication

D) To entertain readers with psychological case studies

Correct Answer: B) To inform readers about CBT's methods and effectiveness

Explanation: The correct answer is **B) To inform readers about CBT's methods and effectiveness**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 17

Read the informational passage. Mycorrhizal networks, sometimes called the 'wood wide web,' are symbiotic associations between fungi and plant roots. These underground networks allow trees and plants to share nutrients, water, and chemical signals across entire forests. Mother trees support their offspring through these connections, and plants can even send warning signals about insect attacks or drought stress to their neighbors. This interconnectedness challenges the traditional view of forests as collections of competing individuals, revealing instead a complex cooperative system. What text structure does the author use to develop the main idea?

A) Sequential process description

B) Problem and solution

C) Definition and explanation with examples

D) Chronological narrative

Correct Answer: C) Definition and explanation with examples

Explanation: The correct answer is **C) Definition and explanation with examples**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Definition and explanation with examples' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 18

Read the passage. The circular economy model aims to eliminate waste by keeping materials in use through continuous cycles of production, consumption, and regeneration. Unlike the traditional linear economy—extract, manufacture, use, dispose—the circular approach designs products for durability, reuse, and eventual recycling. Companies lease products as services rather than selling them, maintaining ownership and responsibility for materials throughout the product lifecycle. This systemic redesign reduces resource extraction, minimizes environmental impact, and can create economic opportunities. Which detail is LEAST relevant to explaining the circular economy concept?

A) Materials are kept in continuous cycles of use

B) Products are designed for durability and reuse

C) Companies may lease products rather than sell them

D) Traditional economies have existed for thousands of years

Correct Answer: D) Traditional economies have existed for thousands of years

Explanation: The correct answer is **D) Traditional economies have existed for thousands of years**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option D. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 19

Read the argument. Year-round schooling, with shorter but more frequent breaks, should replace the traditional academic calendar. The current system, designed for an agricultural society where children were needed for harvest, is obsolete. Students forget significant material during long summer breaks, requiring weeks of review each fall. Year-round schedules reduce learning loss, provide more frequent rest periods to prevent burnout, and use school facilities more efficiently. Critics cite family vacation challenges and lack of definitive evidence for improved outcomes, but pilot programs show promising results in student retention and teacher satisfaction. What is the main claim?

A) Summer vacation was originally created for agricultural purposes

B) Year-round schooling is a promising alternative to traditional calendars despite some concerns

C) All students experience significant learning loss during summer

D) Family vacations are less important than academic achievement

Correct Answer: B) Year-round schooling is a promising alternative to traditional calendars despite some concerns

Explanation: The correct answer is **B) Year-round schooling is a promising alternative to traditional calendars despite some concerns**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 20

Read the argumentative passage. Healthcare is a fundamental human right and should be provided universally by the government. In wealthy nations, no one should die or suffer from preventable illness due to inability to pay. Countries with universal healthcare systems achieve better health outcomes at lower per capita costs than the United States. While critics argue about taxation and government efficiency, the moral imperative is clear: a society's greatness is measured by how it treats its most vulnerable members. Which statement represents a logical counterargument to this position?

A) Universal healthcare is supported by most developed nations

B) Healthcare involves complex market dynamics and resource allocation that may be better managed through diverse approaches including private sector innovation

C) Wealthy nations have moral obligations to their citizens

D) Some people cannot afford medical treatment

Correct Answer: B) Healthcare involves complex market dynamics and resource allocation that may be better managed through diverse approaches including private sector innovation

Explanation: The correct answer is **B) Healthcare involves complex market dynamics and resource allocation that may be better managed through diverse approaches including private sector innovation**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Healthcare involves complex market dynamics and resource allocation that may be better managed through diverse approaches including private sector innovation' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 21

Read the argument. Video games cause violent behavior in young people. Several school shooters played violent video games. We must ban these games to protect our children. If we allow violent games to continue, our society will descend into chaos. Which logical fallacy is most prominent?

A) Post hoc ergo propter hoc (assuming correlation implies causation)

B) Appeal to authority

C) Circular reasoning

D) Red herring

Correct Answer: A) Post hoc ergo propter hoc (assuming correlation implies causation)

Explanation: The correct answer is **A) Post hoc ergo propter hoc (assuming correlation implies causation)**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 22

Read the passage. Standardized testing should be eliminated from college admissions processes. These tests favor wealthy students who can afford preparation courses and multiple test attempts. Research shows that high school GPA is a better predictor of college success than SAT or ACT scores. Test-optional policies have not diminished the academic quality of admitted classes at schools that have adopted them. Additionally, standardized tests create anxiety and reduce education to test preparation rather than genuine learning. While some argue tests provide objective comparison across diverse school systems, the inequities they perpetuate outweigh this benefit. Which piece of evidence would most strengthen this argument?

A) Statistics on average test preparation costs by income bracket

B) Longitudinal data comparing college graduation rates of students admitted with and without test scores

C) Testimonials from students who dislike standardized tests

D) Information about the history of the SAT

Correct Answer: B) Longitudinal data comparing college graduation rates of students admitted with and without test scores

Explanation: The correct answer is **B) Longitudinal data comparing college graduation rates of students admitted with and without test scores**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Longitudinal data comparing college graduation rates of students admitted with and without test scores' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 23

Read the argument. Genetic engineering of human embryos is morally wrong and should be prohibited. My religious beliefs teach that we should not interfere with natural human development. Scientists who support this research are playing God and will lead humanity to ruin. These techniques might be used to create 'designer babies,' exacerbating social inequality. We must stop this dangerous research immediately. Which element most weakens the argument's persuasiveness?

A) The reference to designer babies and social inequality

B) The reliance on personal religious beliefs as the primary justification

C) The call for immediate prohibition of the research

D) The concern about unforeseen consequences

Correct Answer: B) The reliance on personal religious beliefs as the primary justification

Explanation: The correct answer is **B) The reliance on personal religious beliefs as the primary justification**. Solving inequalities follows the same steps as equations, with one critical difference: multiplying or dividing by a negative number reverses the inequality sign. Isolating the variable in this inequality yields the solution set The reliance on personal religious beliefs as the primary justification.

QUESTION 24

Read the argumentative text. A carbon tax, charging fees based on carbon emissions, would effectively address climate change. Economic incentives have proven effective in modifying behavior in other contexts. By making pollution expensive, a carbon tax encourages businesses and individuals to reduce emissions and invest in clean energy. Revenue generated can fund renewable energy development or be returned to citizens as dividends. Critics worry about economic impacts, but economic modeling suggests the long-term costs of unmitigated climate change far exceed the costs of carbon pricing. What assumption underlies this argument?

A) Climate change is not influenced by human activity

B) Economic incentives can effectively modify behavior related to carbon emissions

C) Carbon taxes will completely eliminate all emissions immediately

D) Renewable energy is less efficient than fossil fuels

Correct Answer: B) Economic incentives can effectively modify behavior related to carbon emissions

Explanation: The correct answer is **B) Economic incentives can effectively modify behavior related to carbon emissions**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives Economic incentives can effectively modify behavior related to carbon emissions.

QUESTION 25

Read the passage. Schools should eliminate homework for elementary students. Childhood is short, and young children need time for play, family interaction, and unstructured exploration. Either we prioritize children's wellbeing and eliminate homework, or we continue to sacrifice childhood to academic pressure. Several schools that eliminated homework have reported no decline in academic performance and improved student wellbeing. What logical fallacy appears in this argument?

A) Hasty generalization

B) False dilemma

C) Ad hominem

D) Circular reasoning

Correct Answer: B) False dilemma

Explanation: The correct answer is **B) False dilemma**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'False dilemma' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 26

Read the argument. Prison systems should focus on rehabilitation rather than punishment. The United States has the highest incarceration rate in the world, yet high recidivism rates demonstrate that imprisonment alone does not reduce crime. Countries like Norway, which emphasize rehabilitation, education, and mental health treatment, achieve recidivism rates below 20% compared to nearly 70% in the U.S. Investing in rehabilitation programs, job training, and addiction treatment reduces long-term costs and creates safer communities. Which best identifies a weakness in this reasoning?

A) The argument fails to consider that cultural, legal, and social differences between countries may affect recidivism rates beyond just rehabilitation programs

B) The statistics about recidivism rates are completely fabricated

C) Rehabilitation programs have never been attempted in the United States

D) Norway's approach is irrelevant to all other countries

Correct Answer: A) The argument fails to consider that cultural, legal, and social differences between countries may affect recidivism rates beyond just rehabilitation programs

Explanation: The correct answer is **A) The argument fails to consider that cultural, legal, and social differences between countries may affect recidivism rates beyond just rehabilitation programs**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives The argument fails to consider that cultural, legal, and social differences between countries may affect recidivism rates beyond just rehabilitation programs.

QUESTION 27

Read the paragraph. (1) The downtown revitalization project has transformed the city's core. (2) Abandoned warehouses have been converted into mixed-use spaces with apartments, shops, and galleries. (3) New pedestrian plazas encourage community gathering. (4) Public art installations add vibrancy to previously neglected areas. Which sentence should be added after sentence 4 to best support the main idea with specific evidence?

A) Many cities across the country are pursuing similar projects.

B) Foot traffic has increased by 40%, and 15 new businesses have opened in the past year alone.

C) Urban planning is a complex field that requires expertise.

D) The mayor supports downtown development initiatives.

Correct Answer: B) Foot traffic has increased by 40%, and 15 new businesses have opened in the past year alone.

Explanation: The correct answer is **B) Foot traffic has increased by 40%, and 15 new businesses have opened in the past year alone.**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Foot traffic has increased by 40%, and 15 new businesses have opened in the past year alone.' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 28

Read the draft. (1) Climate change affects ecosystems in complex ways. (2) Rising temperatures alter migration patterns of bird species. (3) Ocean acidification threatens coral reefs and shellfish populations. (4) I went snorkeling in a coral reef last summer. (5) These interconnected impacts cascade through food webs, affecting entire ecological communities. Which sentence should be deleted because it does not support the paragraph's focus on climate change's ecosystem impacts?

A) Sentence 2

B) Sentence 3

C) Sentence 4

D) Sentence 5

Correct Answer: C) Sentence 4

Explanation: The correct answer is **C) Sentence 4**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Sentence 4' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 29

Read the paragraph. (1) The archaeological discovery revealed a previously unknown Bronze Age settlement. (2) Researchers excavated pottery fragments, bronze tools, and evidence of sophisticated metalworking. (3) Carbon dating placed the settlement at approximately 1500 BCE. (4) _____. (5) The findings challenge existing theories about trade networks in the region. Which sentence would best fit in the blank to maintain the paragraph's focus and logical flow?

A) Bronze Age settlements are found throughout Europe and Asia.

B) Most significantly, imported materials suggest long-distance trade connections previously thought impossible for that era.

C) The excavation team worked throughout the summer months.

D) Pottery is a common archaeological find at ancient sites.

Correct Answer: B) Most significantly, imported materials suggest long-distance trade connections previously thought impossible for that era.

Explanation: The correct answer is **B) Most significantly, imported materials suggest long-distance trade connections previously thought impossible for that era.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Most significantly, imported materials suggest long-distance trade connections previously thought impossible for that era.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 30

Read the draft. (1) Bioluminescence—the ability of organisms to produce light—serves various survival functions. (2) Fireflies use light signals for mating communication. (3) Deep-sea creatures employ bioluminescence to attract prey in total darkness. (4) Some species use light displays to startle predators. Which revision to sentence 4 would best connect it logically to the previous sentences?

A) For instance, some species use light displays to startle predators.

B) Conversely, some species use light displays to startle predators.

C) Similarly, some species use light displays to startle predators.

D) Therefore, some species use light displays to startle predators.

Correct Answer: C) Similarly, some species use light displays to startle predators.

Explanation: The correct answer is **C) Similarly, some species use light displays to startle predators.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 31

Read the paragraph. (1) The community literacy program expanded beyond basic reading instruction. (2) Volunteers helped participants navigate job applications, medical forms, and legal documents. (3) Classes addressed digital literacy, including email and online research skills. (4) Many participants gained confidence to pursue further education. (5) The program became a model for similar initiatives statewide. Which revision would improve coherence by better connecting sentences 4 and 5?

A) As participants' success stories spread, the program became a model for similar initiatives statewide.

B) The program became a model for similar initiatives statewide and offered morning classes.

C) However, the program became a model for similar initiatives statewide.

D) The program became expensive and then became a model for similar initiatives statewide.

Correct Answer: A) As participants' success stories spread, the program became a model for similar initiatives statewide.

Explanation: The correct answer is **A) As participants' success stories spread, the program became a model for similar initiatives statewide.**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 32

Read the draft. (1) Financial literacy should be a required component of high school curricula. (2) Students need to understand budgeting, credit, and investing. (3) Many young adults accumulate debt due to financial ignorance. (4) Understanding compound interest affects major life decisions. (5) Equipping students with these skills promotes long-term economic wellbeing. The writer wants to add a sentence after sentence 1 that provides specific evidence. Which choice best accomplishes this goal?

A) Money is important in modern society.

B) According to recent surveys, only 17 states require high school students to take a personal finance course, yet financial decisions impact every aspect of adult life.

C) Young people often make poor financial choices.

D) Financial literacy programs exist in some schools.

Correct Answer: B) According to recent surveys, only 17 states require high school students to take a personal finance course, yet financial decisions impact every aspect of adult life.

Explanation: The correct answer is **B) According to recent surveys, only 17 states require high school students to take a personal finance course, yet financial decisions impact every aspect of adult life.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 33

Which sentence demonstrates correct subject-verb agreement?

A) The team of researchers have published their findings in a prestigious journal.

B) Neither the hypothesis nor the experimental methods was appropriate for the study.

C) The data collected over five years indicate significant climate trends.

D) Everyone in the focus groups were asked to complete a follow-up survey.

Correct Answer: C) The data collected over five years indicate significant climate trends.

Explanation: The correct answer is **C) The data collected over five years indicate significant climate trends.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option C is grammatically correct.

QUESTION 34

Which sentence uses pronouns correctly?

A) The orchestra tuned its instruments before the conductor took their place.

B) Each volunteer should bring their own lunch to the event.

C) The committee submitted its recommendations to the board of directors.

D) Neither of the proposals were acceptable in their current form.

Correct Answer: C) The committee submitted its recommendations to the board of directors.

Explanation: The correct answer is **C) The committee submitted its recommendations to the board of directors.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option C uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 35

Which sentence demonstrates correct verb tense consistency?

A) The author describes the setting in vivid detail and had created a strong sense of place.

B) By next month, the construction project will be underway for two years.

C) She reviewed the manuscript, identified errors, and makes recommendations for revision.

D) The documentary explores historical events and has been examining their modern relevance.

Correct Answer: B) By next month, the construction project will be underway for two years.

Explanation: The correct answer is **B) By next month, the construction project will be underway for two years.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 36

Which sentence exhibits proper parallel structure?

A) The initiative focuses on reducing waste, to increase recycling, and educating the community.

B) Effective leaders demonstrate integrity, communicate clearly, and showing empathy.

C) The workshop covers developing research questions, gathering data, and analysis of results.

D) The program aims to improve public health, reduce healthcare costs, and enhance quality of life.

Correct Answer: D) The program aims to improve public health, reduce healthcare costs, and enhance quality of life.

Explanation: The correct answer is **D) The program aims to improve public health, reduce healthcare costs, and enhance quality of life.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option D maintains consistent grammatical form across all listed or compared elements.

QUESTION 37

Which sentence correctly places modifiers?

A) Covered in morning dew, the hikers admired the meadow.

B) The curator showed the artifact to the visitors that had been recently discovered.

C) Having completed the training, the certification was awarded to the employees.

D) Exhausted from the journey, the travelers finally reached their destination.

Correct Answer: D) Exhausted from the journey, the travelers finally reached their destination.

Explanation: The correct answer is **D) Exhausted from the journey, the travelers finally reached their destination.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 38

Which sentence uses commas correctly?

A) The documentary which premiered at the film festival received widespread acclaim.

B) After conducting extensive research, the scientists published their conclusions.

C) My colleague who works in the biology department is leading the study.

D) The manuscript required revision, before it could be submitted for publication.

Correct Answer: B) After conducting extensive research, the scientists published their conclusions.

Explanation: The correct answer is **B) After conducting extensive research, the scientists published their conclusions.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option B as the only correctly punctuated version.

QUESTION 39

Which sentence demonstrates correct use of semicolons?

A) The proposal has merit; however, it requires additional funding.

B) We visited three cities; Paris; Berlin; and Prague.

C) The deadline is approaching; and we still have work to complete; before submission.

D) The research team included; a biologist, a chemist, and a statistician.

Correct Answer: A) The proposal has merit; however, it requires additional funding.

Explanation: The correct answer is **A) The proposal has merit; however, it requires additional funding.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 40

Which sentence uses apostrophes correctly?

A) The womens' contributions to the field have been historically undervalued.

B) Its essential to review the proposals accuracy before the deadline.

C) The students' research projects demonstrated impressive analytical skills.

D) Three companys' representatives attended the conference.

Correct Answer: C) The students' research projects demonstrated impressive analytical skills.

Explanation: The correct answer is **C) The students' research projects demonstrated impressive analytical skills.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

QUESTION 41

Which sentence correctly uses a colon?

A) The study examined three variables: temperature, humidity, and pressure.

B) She had: a unique perspective on the problem.

C) The countries visited included: Spain, Portugal, and Morocco.

D) They need to: analyze the data, write the report, and present findings.

Correct Answer: A) The study examined three variables: temperature, humidity, and pressure.

Explanation: The correct answer is **A) The study examined three variables: temperature, humidity, and pressure.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 42

Which option corrects the sentence boundary error? The exhibition was controversial, many critics questioned the curator's selections.

A) The exhibition was controversial many critics questioned the curator's selections.

B) The exhibition was controversial, because many critics questioned the curator's selections.

C) The exhibition was controversial; many critics questioned the curator's selections.

D) The exhibition was controversial and, many critics questioned the curator's selections.

Correct Answer: C) The exhibition was controversial; many critics questioned the curator's selections.

Explanation: The correct answer is **C) The exhibition was controversial; many critics questioned the curator's selections.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 43

Which sentence correctly punctuates a complex sentence with multiple elements?

A) While the results were promising the researchers recognized limitations and they recommended further investigation.

B) While the results were promising, the researchers recognized limitations, and they recommended further investigation.

C) While, the results were promising, the researchers recognized limitations and, they recommended further investigation.

D) While the results were promising, the researchers recognized limitations and, they recommended further investigation.

Correct Answer: B) While the results were promising, the researchers recognized limitations, and they recommended further investigation.

Explanation: The correct answer is **B) While the results were promising, the researchers recognized limitations, and they recommended further investigation.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 44

Which revision most effectively combines these sentences? The museum acquired a significant collection. The acquisition happened last year. The collection includes works from the Impressionist period.

A) The museum acquired a significant collection last year, and the collection includes works from the Impressionist period.

B) Last year's museum acquisition of a significant collection includes works from the Impressionist period.

C) The museum acquired last year a significant collection, it includes works from the Impressionist period.

D) Last year, the museum acquired a significant collection that includes works from the Impressionist period.

Correct Answer: D) Last year, the museum acquired a significant collection that includes works from the Impressionist period.

Explanation: The correct answer is **D) Last year, the museum acquired a significant collection that includes works from the Impressionist period.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 45

Which version most effectively eliminates wordiness? At this point in time, it is my personal belief that the current situation we are facing requires immediate action and attention from all of the members of our team.

A) I believe our current situation requires immediate team attention.

B) At this point, I personally believe the situation requires action from team members.

C) Our current situation requires immediate action from the entire team.

D) It is my belief that the situation facing us currently requires immediate attention.

Correct Answer: C) Our current situation requires immediate action from the entire team.

Explanation: The correct answer is **C) Our current situation requires immediate action from the entire team.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 46

Which sentence most effectively uses active voice to clarify agency?

A) The conclusion was reached by the panel after extensive deliberation.

B) After extensive deliberation, the conclusion was reached.

C) After extensive deliberation, the panel reached its conclusion.

D) The conclusion, after extensive deliberation, was reached by the panel.

Correct Answer: C) After extensive deliberation, the panel reached its conclusion.

Explanation: The correct answer is **C) After extensive deliberation, the panel reached its conclusion.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 47

Which revision best combines these sentences while maintaining clarity? The research addresses environmental sustainability. It focuses on urban contexts. The methodology incorporates both qualitative and quantitative approaches. This combination provides comprehensive insights.

A) The research addresses environmental sustainability in urban contexts, and the methodology incorporates both qualitative and quantitative approaches, which provides comprehensive insights.

B) Addressing environmental sustainability in urban contexts, the research employs both qualitative and quantitative methodologies to provide comprehensive insights.

C) The research addresses environmental sustainability and focuses on urban contexts, the methodology uses qualitative and quantitative approaches for comprehensive insights.

D) Environmental sustainability is addressed by the research in urban contexts, using both qualitative and quantitative approaches in the methodology, providing comprehensive insights.

Correct Answer: B) Addressing environmental sustainability in urban contexts, the research employs both qualitative and quantitative methodologies to provide comprehensive insights.

Explanation: The correct answer is **B) Addressing environmental sustainability in urban contexts, the research employs both qualitative and quantitative methodologies to provide comprehensive insights.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 48

Which sentence uses the most precise and concise language?

A) In the event that there is a need for additional resources, please contact the office.

B) Should you need additional resources, contact the office.

C) If it happens that you are in need of more resources, you should contact the office.

D) In case there might be a need for additional resources, contact the office.

Correct Answer: B) Should you need additional resources, contact the office.

Explanation: The correct answer is **B) Should you need additional resources, contact the office.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

ELAR DIAGNOSTIC

TSIA2 ELAR Diagnostic Exam 3 — 2026

48 Questions — Answer Key with Explanations

QUESTION 1

Read the passage and answer the question. The autumn wind whispered through the abandoned theater, stirring dust motes that danced in shafts of afternoon light. Marcus stood center stage, his footsteps echoing in the empty hall where his grandmother had once performed to standing ovations. He could almost hear the phantom applause, feel the warmth of spotlights that had long since dimmed. This place, forgotten by the city, remained alive in his memory—a cathedral of dreams where art had once flourished. What is the primary theme conveyed in this passage?

A) The inevitability of technological progress replacing traditional art forms

B) The enduring power of memory and legacy in abandoned spaces

C) The financial difficulties facing performance venues in modern cities

D) The superiority of past artistic achievements over contemporary works

Correct Answer: B) The enduring power of memory and legacy in abandoned spaces

Explanation: The correct answer is **B) The enduring power of memory and legacy in abandoned spaces**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 2

Read the passage and answer the question. Elena had always been the practical one, the sister who calculated risks and made sensible choices. But watching the storm gather over the mountains, she felt an unfamiliar impulse—to run toward the thunder rather than seek shelter, to embrace uncertainty instead of planning against it. She gripped the porch railing, her knuckles white, torn between the person she had always been and the person she might become. Which literary device is most prominently used in this passage?

A) Metaphor comparing Elena to a storm

B) Internal conflict revealing character development

C) Foreshadowing of a natural disaster

D) Symbolism of the porch representing safety

Correct Answer: B) Internal conflict revealing character development

Explanation: The correct answer is **B) Internal conflict revealing character development**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 3

Read the passage and answer the question. The merchant's son returned to the village after twenty years, his fine clothes and cultured speech marking him as a stranger among people who had once been his family. Children stared; elders whispered. He had sought fortune in distant cities and found it, but the price—this chasm of alienation, this sense of belonging nowhere—weighed heavier than gold. What does the phrase 'weighed heavier than gold' suggest about the character's emotional state?

A) His wealth has become a physical burden he must carry

B) He regrets his financial success and wishes to return it

C) The emotional cost of his success exceeds its material value

D) He believes money is less valuable than other metals

Correct Answer: C) The emotional cost of his success exceeds its material value

Explanation: The correct answer is **C) The emotional cost of his success exceeds its material value**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'The emotional cost of his success exceeds its material value', making it the best-supported inference over the other options.

QUESTION 4

Read the passage and answer the question. In the story's climax, the protagonist discovers that the mysterious letters she had been receiving were written by her future self, warning her about choices that would lead to regret. This revelation forces her to confront whether destiny can be altered or if her attempts to change the future will simply fulfill it. How does this plot development function in the narrative structure?

A) It provides comic relief in an otherwise serious story

B) It creates a paradox that drives the story's central tension

C) It resolves all conflicts and brings the story to conclusion

D) It introduces a minor subplot unrelated to the main theme

Correct Answer: B) It creates a paradox that drives the story's central tension

Explanation: The correct answer is **B) It creates a paradox that drives the story's central tension**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'It creates a paradox that drives the story's central tension', making it the best-supported inference over the other options.

QUESTION 5

Read the passage and answer the question. The city was a symphony of chaos: car horns blaring like discordant trumpets, jackhammers percussion against concrete, the soprano calls of street vendors weaving through it all. To newcomers, it was noise; to Yuki, who had lived here thirty years, it was the music of home. What is the effect of the extended metaphor comparing the city to a symphony?

A) It suggests the city is pleasant and harmonious for everyone

B) It emphasizes the difference between objective chaos and subjective meaning

C) It criticizes urban development and construction noise

D) It demonstrates that Yuki is a professional musician

Correct Answer: B) It emphasizes the difference between objective chaos and subjective meaning

Explanation: The correct answer is **B) It emphasizes the difference between objective chaos and subjective meaning**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'it emphasizes the difference between objective chaos and subjective meaning'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 6

Read the passage and answer the question. Dr. Winters was a woman of contradictions: brilliant yet humble, ambitious yet content, demanding of others but twice as hard on herself. Her students feared her exacting standards while seeking her mentorship, understanding that her criticism came from genuine investment in their success rather than cruelty. Which aspect of characterization is primarily developed in this passage?

A) Physical appearance and mannerisms

B) Complex personality through contrasting traits

C) Background history and past experiences

D) Dialogue revealing speech patterns

Correct Answer: B) Complex personality through contrasting traits

Explanation: The correct answer is **B) Complex personality through contrasting traits**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 7

Read the passage and answer the question. The iron gate stood sentinel at the property's edge, its bars twisted into elaborate roses that had rusted to the color of dried blood. Beyond it, the garden had returned to wilderness, cultivated flowers strangled by vines, stone paths vanished beneath moss. Time, the great equalizer, recognized no difference between palace and cottage, reducing both to the same inevitable decay. What does the imagery of the rusted gate and overgrown garden primarily symbolize?

A) The danger of neglecting home maintenance

B) The passage of time and inevitable decline

C) The beauty of natural growth over human design

D) The wealth of the property's former owners

Correct Answer: B) The passage of time and inevitable decline

Explanation: The correct answer is **B) The passage of time and inevitable decline**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'the passage of time and inevitable decline' as the dominant tone.

QUESTION 8

Read the passage and answer the question. 'You cannot cross the same river twice,' the old philosopher had told her, and only now, standing on the bank of her childhood stream, did Maya understand. The water flowing past was different water, and she was a different person—the river itself existed only as a concept, a name given to constant change. What is the central idea expressed through this philosophical reflection?

A) Rivers are dangerous and should be crossed with caution

B) Childhood memories are always inaccurate and unreliable

C) Identity and reality are characterized by continuous transformation

D) Philosophers provide practical advice for everyday problems

Correct Answer: C) Identity and reality are characterized by continuous transformation

Explanation: The correct answer is **C) Identity and reality are characterized by continuous transformation**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Identity and reality are characterized by continuous transformation' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 9

Read the passage and answer the question. The final scene shows the character standing at a crossroads, literally and figuratively, as dawn breaks over the horizon. She holds a train ticket in one hand and her childhood home's key in the other, her expression revealing both fear and determination. The camera slowly pulls back, leaving her decision unresolved. What is the literary effect of this ambiguous ending?

A) It frustrates readers by failing to complete the story

B) It invites readers to consider multiple possible outcomes and meanings

C) It suggests the author could not decide how to end the story

D) It indicates that the character's choice is unimportant

Correct Answer: B) It invites readers to consider multiple possible outcomes and meanings

Explanation: The correct answer is **B) It invites readers to consider multiple possible outcomes and meanings**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 10

Read the passage and answer the question. Urban vertical farming represents a paradigm shift in agricultural production. By stacking growing platforms in climate-controlled environments within cities, these facilities can produce crops year-round while using 95% less water than traditional farming. LED lighting tuned to specific wavelengths optimizes photosynthesis, and the absence of soil eliminates many pest and disease issues. However, the high energy costs and initial capital investment remain significant barriers to widespread adoption. What is the main idea of this passage?

A) Traditional farming methods are becoming obsolete and should be abandoned

B) Vertical farming offers significant advantages but faces economic challenges

C) LED lighting is the most important innovation in modern agriculture

D) Urban areas should convert all available space to food production

Correct Answer: B) Vertical farming offers significant advantages but faces economic challenges

Explanation: The correct answer is **B) Vertical farming offers significant advantages but faces economic challenges**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Vertical farming offers significant advantages but faces economic challenges' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 11

Read the passage and answer the question. The human microbiome—the trillions of bacteria, viruses, and fungi living in and on our bodies—plays a crucial role in health that scientists are only beginning to understand. These microorganisms aid digestion, synthesize vitamins, train the immune system, and may even influence mood and behavior through the gut-brain axis. Disruption of this microbial ecosystem through antibiotic overuse or poor diet has been linked to conditions ranging from obesity to depression. What supporting detail best illustrates the microbiome's importance?

A) Scientists are still learning about the microbiome's functions

B) Trillions of microorganisms live in and on human bodies

C) The microbiome performs essential functions including vitamin synthesis and immune training

D) Antibiotics and diet can disrupt the microbial ecosystem

Correct Answer: C) The microbiome performs essential functions including vitamin synthesis and immune training

Explanation: The correct answer is **C) The microbiome performs essential functions including vitamin synthesis and immune training**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'the microbiome performs essential functions including vitamin synthesis and immune training' as the dominant tone.

QUESTION 12

Read the passage and answer the question. The text is organized as follows: First, it introduces the concept of neuroplasticity. Second, it explains the mechanisms by which the brain forms new neural connections. Third, it presents research findings on neuroplasticity in different age groups. Finally, it discusses practical applications in rehabilitation and education. What organizational structure does this passage primarily use?

A) Chronological order showing historical development

B) Cause and effect demonstrating relationships

C) Problem and solution presenting fixes

D) Sequential order explaining a complex topic

Correct Answer: D) Sequential order explaining a complex topic

Explanation: The correct answer is **D) Sequential order explaining a complex topic**. Text structure describes how a writer arranges information — common patterns include cause/effect, compare/contrast, problem/solution, and chronological order. The sequence of ideas and transitional language in this passage most clearly reflects 'sequential order explaining a complex topic'.

QUESTION 13

Read the passage and answer the question. While coral reefs occupy less than 1% of the ocean floor, they support approximately 25% of all marine species. These biodiversity hotspots provide critical ecosystem services: coastal protection from storm surge, nursery habitat for commercial fish species, and potential sources of pharmaceutical compounds. The author's primary purpose in presenting these statistics is to:

A) Entertain readers with interesting facts about ocean life

B) Persuade readers of coral reefs' disproportionate ecological importance

C) Instruct readers on how to protect coral reef ecosystems

D) Describe the physical characteristics of coral reef structures

Correct Answer: B) Persuade readers of coral reefs' disproportionate ecological importance

Explanation: The correct answer is **B) Persuade readers of coral reefs' disproportionate ecological importance**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 14

Read the passage and answer the question. The quantum computing revolution may render current encryption methods obsolete. Classical computers process information in binary bits—ones and zeros—while quantum computers use qubits that can exist in multiple states simultaneously through superposition. This allows them to solve certain problems exponentially faster than classical computers. Based on this passage, what can be inferred about the relationship between quantum computing and cybersecurity?

A) Quantum computers will make all computing faster and more efficient

B) Current security systems may become vulnerable to quantum computing capabilities

C) Binary code is superior to quantum computing for most applications

D) Encryption has never been an effective security method

Correct Answer: B) Current security systems may become vulnerable to quantum computing capabilities

Explanation: The correct answer is **B) Current security systems may become vulnerable to quantum computing capabilities**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Current security systems may become vulnerable to quantum computing capabilities', making it the best-supported inference over the other options.

QUESTION 15

Read the passage and answer the question. The term 'sustainable' has become ubiquitous in marketing, applied to everything from coffee to clothing. True sustainability, however, requires meeting present needs without compromising future generations' ability to meet theirs—a balance involving environmental, economic, and social considerations. In this context, what does 'ubiquitous' most nearly mean?

A) Controversial or disputed

B) Scientifically accurate

C) Present everywhere or commonplace

D) Environmentally harmful

Correct Answer: C) Present everywhere or commonplace

Explanation: The correct answer is **C) Present everywhere or commonplace**. When determining word meaning from context, look at the surrounding sentences for synonyms, antonyms, or examples that clarify the word's usage. The context in this passage indicates the word means 'present everywhere or commonplace', which fits the logical flow of the passage.

QUESTION 16

Read the passage and answer the question. Sleep deprivation affects cognitive function in multiple ways. First, it impairs attention and concentration, making it difficult to focus on tasks. Second, it disrupts memory consolidation, the process by which short-term memories become long-term ones. Third, it reduces problem-solving abilities and creative thinking. Chronic sleep loss has been linked to increased risk of accidents, reduced academic performance, and various health problems. Which sentence best summarizes the passage's main idea?

A) Sleep deprivation disrupts memory consolidation processes

B) Chronic sleep loss creates various health problems

C) Insufficient sleep impairs multiple aspects of cognitive function and overall well-being

D) People should get more sleep to perform better academically

Correct Answer: C) Insufficient sleep impairs multiple aspects of cognitive function and overall well-being

Explanation: The correct answer is **C) Insufficient sleep impairs multiple aspects of cognitive function and overall well-being**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Insufficient sleep impairs multiple aspects of cognitive function and overall well-being' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 17

Read the passage and answer the question. Biomimicry, the practice of learning from and mimicking nature's strategies, has inspired numerous innovations. Velcro was invented after observing how burrs stuck to dog fur. Bullet train designs borrowed from kingfisher beaks to reduce noise. Termite mound ventilation systems influenced energy-efficient building designs. What is the author's primary purpose in providing these examples?

A) To argue that all technology should copy natural systems

B) To illustrate the diverse applications of biomimicry principles

C) To explain the scientific process of studying animal behavior

D) To criticize conventional engineering approaches as inferior

Correct Answer: B) To illustrate the diverse applications of biomimicry principles

Explanation: The correct answer is **B) To illustrate the diverse applications of biomimicry principles**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 18

Read the passage and answer the question. The placebo effect demonstrates the powerful connection between mind and body. Patients given inactive treatments often experience real symptom improvement, sometimes comparable to active medications. Neuroimaging studies show that placebos can trigger genuine physiological changes—releasing endorphins, activating pain-relief pathways, and altering brain activity patterns. What conclusion is best supported by the information presented?

A) All medications are actually placebos with no real effects

B) Psychological factors can produce measurable physical responses

C) Doctors should only prescribe placebos to reduce healthcare costs

D) The placebo effect only works on patients who are easily deceived

Correct Answer: B) Psychological factors can produce measurable physical responses

Explanation: The correct answer is **B) Psychological factors can produce measurable physical responses**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Psychological factors can produce measurable physical responses' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 19

Read the argument and answer the question. Proponents of universal basic income (UBI) argue that providing all citizens with regular, unconditional cash payments would reduce poverty, provide economic security in an age of automation, and simplify the welfare system by replacing multiple programs. Critics counter that UBI would be prohibitively expensive, reduce work incentive, and that existing targeted programs more efficiently help those truly in need. What is the main claim of UBI proponents?

A) Automation will eliminate all jobs within the next decade

B) Current welfare programs are completely ineffective

C) Universal basic income would provide multiple social and economic benefits

D) Everyone deserves to be wealthy regardless of employment

Correct Answer: C) Universal basic income would provide multiple social and economic benefits

Explanation: The correct answer is **C) Universal basic income would provide multiple social and economic benefits**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to Universal basic income would provide multiple social and economic benefits.

QUESTION 20

Read the argument and answer the question. The author argues: 'Schools should eliminate traditional homework. Studies show that homework beyond two hours per night does not improve academic achievement and increases student stress and family conflict. Countries like Finland, which assign minimal homework, consistently rank among the world's top education systems.' What type of evidence does the author primarily use?

A) Personal anecdotes from students and parents

B) Research findings and international comparisons

C) Expert testimonials from teachers

D) Hypothetical scenarios about student well-being

Correct Answer: B) Research findings and international comparisons

Explanation: The correct answer is **B) Research findings and international comparisons**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 21

Read the argument and answer the question. 'We must ban all genetic modification of crops. Once we start altering DNA, where do we stop? Today it's making tomatoes last longer; tomorrow it could be creating designer humans. This slippery slope will lead to the end of natural life as we know it.' What logical fallacy does this argument commit?

A) False dilemma (presenting only two options when others exist)

B) Slippery slope (assuming one action will inevitably lead to extreme consequences)

C) Ad hominem (attacking the person rather than the argument)

D) Circular reasoning (using the conclusion to support the premise)

Correct Answer: B) Slippery slope (assuming one action will inevitably lead to extreme consequences)

Explanation: The correct answer is **B) Slippery slope (assuming one action will inevitably lead to extreme consequences)**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option B.

QUESTION 22

Read the argument and answer the question. The passage states: 'According to a 2024 study published in the Journal of Environmental Science, urban trees reduce air temperature by 2-5 degrees Fahrenheit through evapotranspiration and shade. A separate analysis by the American Lung Association found that urban forests remove 711,000 tons of air pollution annually, providing $3.8 billion in health benefits.' How would you characterize these supporting details?

A) Opinion-based claims without factual support

B) Verifiable facts from credible sources

C) Emotional appeals designed to manipulate readers

D) Hypothetical scenarios about possible benefits

Correct Answer: B) Verifiable facts from credible sources

Explanation: The correct answer is **B) Verifiable facts from credible sources**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Verifiable facts from credible sources' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 23

Read the argument and answer the question. 'The death penalty must be abolished because it is morally wrong to take a human life under any circumstances. Even though studies show mixed results on whether capital punishment deters crime, and while some argue it provides justice for victims' families, the fundamental ethical principle of the sanctity of life supersedes all other considerations.' Which element of this argument represents a counterclaim?

A) The death penalty must be abolished

B) It is morally wrong to take a human life under any circumstances

C) Some argue it provides justice for victims' families

D) The fundamental ethical principle of the sanctity of life

Correct Answer: C) Some argue it provides justice for victims' families

Explanation: The correct answer is **C) Some argue it provides justice for victims' families**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives Some argue it provides justice for victims' families.

QUESTION 24

Read the argument and answer the question. 'Everyone I know thinks that standardized testing is harmful to education. My parents, my teachers, and all my friends agree. Therefore, standardized testing should be eliminated from all schools.' What weakness in reasoning does this argument demonstrate?

A) It relies on a limited personal sample rather than representative evidence

B) It provides too much statistical data to be easily understood

C) It presents both sides of the issue too equally

D) It uses technical language that obscures the main point

Correct Answer: A) It relies on a limited personal sample rather than representative evidence

Explanation: The correct answer is **A) It relies on a limited personal sample rather than representative evidence**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to It relies on a limited personal sample rather than representative evidence.

QUESTION 25

Read the argument and answer the question. The text presents two perspectives: Perspective A argues that social media has democratized information, giving voice to marginalized groups and enabling social movements. Perspective B argues that social media has amplified misinformation, increased political polarization, and degraded public discourse. The author concludes that both perspectives contain truth and the reality is more nuanced. What approach to argumentation does the author employ?

A) Presenting only one side to make a clear argument

B) Acknowledging complexity and multiple valid perspectives

C) Dismissing both viewpoints as equally wrong

D) Avoiding taking any position on the issue

Correct Answer: B) Acknowledging complexity and multiple valid perspectives

Explanation: The correct answer is **B) Acknowledging complexity and multiple valid perspectives**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Acknowledging complexity and multiple valid perspectives' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 26

Read the paragraph and answer the question. (1) Electric vehicles represent the future of transportation. (2) They produce zero direct emissions, reducing air pollution in cities. (3) Many people enjoy driving. (4) Studies show that EVs cost less to maintain than conventional vehicles, with fewer moving parts and no need for oil changes. Which sentence should be removed because it does not support the paragraph's main idea?

A) Sentence 1

B) Sentence 2

C) Sentence 3

D) Sentence 4

Correct Answer: C) Sentence 3

Explanation: The correct answer is **C) Sentence 3**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Sentence 3' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 27

Read the paragraph and answer the question. The writer wants to add a sentence that provides specific evidence supporting the claim that meditation reduces stress. Which sentence would best achieve this goal? 'Regular meditation practice offers significant mental health benefits. [NEW SENTENCE] Additionally, practitioners report improved focus and emotional regulation.'

A) Many people find meditation relaxing and enjoyable.

B) Research from Harvard Medical School demonstrates that eight weeks of meditation can physically change brain regions associated with stress response.

C) There are many different types of meditation to choose from.

D) Meditation has been practiced for thousands of years in various cultures.

Correct Answer: B) Research from Harvard Medical School demonstrates that eight weeks of meditation can physically change brain regions associated with stress response.

Explanation: The correct answer is **B) Research from Harvard Medical School demonstrates that eight weeks of meditation can physically change brain regions associated with stress response.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Research from Harvard Medical School demonstrates that eight weeks of meditation can physically change brain regions associated with stress response.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 28

Read the paragraph and answer the question. (1) Community gardens provide numerous benefits to urban neighborhoods. (2) They transform vacant lots into productive green spaces. (3) Participants gain access to fresh, affordable produce. (4) The gardens also serve as social hubs, building connections among diverse residents. Which sentence would best follow sentence 4 to provide additional support?

A) Gardening can be hard work, especially in summer heat.

B) Studies indicate that neighborhoods with community gardens experience reduced crime rates and increased property values.

C) Many cities have policies about urban land use.

D) Some people prefer shopping at grocery stores.

Correct Answer: B) Studies indicate that neighborhoods with community gardens experience reduced crime rates and increased property values.

Explanation: The correct answer is **B) Studies indicate that neighborhoods with community gardens experience reduced crime rates and increased property values.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Studies indicate that neighborhoods with community gardens experience reduced crime rates and increased property values.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 29

Read the paragraph and answer the question. (1) The writer argues that schools should start later to align with adolescent sleep patterns. (2) Teenagers' biological clocks naturally shift toward later sleep and wake times. (3) When schools begin before 8:30 a.m., students suffer chronic sleep deprivation. (4) This affects academic performance, mental health, and even driving safety. Which addition would most strengthen this argument?

A) A description of what time the writer's school started

B) Data showing that districts that delayed start times saw improved attendance and test scores

C) An explanation of how alarm clocks work

D) A personal story about feeling tired in morning classes

Correct Answer: B) Data showing that districts that delayed start times saw improved attendance and test scores

Explanation: The correct answer is **B) Data showing that districts that delayed start times saw improved attendance and test scores**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Data showing that districts that delayed start times saw improved attendance and test scores' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 30

Read the paragraph and answer the question. (1) Coral reefs face multiple threats that jeopardize their survival. (2) Ocean acidification, caused by CO2 absorption, weakens coral skeletons. (3) Rising sea temperatures trigger coral bleaching events. (4) Overfishing disrupts reef ecosystems by removing key species. The writer wants to add a concluding sentence. Which would be most effective?

A) Coral reefs are very beautiful and colorful.

B) Without urgent action to address these interconnected threats, many reef systems could collapse within decades.

C) Many people enjoy scuba diving on coral reefs.

D) Coral reefs exist in tropical waters around the world.

Correct Answer: B) Without urgent action to address these interconnected threats, many reef systems could collapse within decades.

Explanation: The correct answer is **B) Without urgent action to address these interconnected threats, many reef systems could collapse within decades.**. Effective transitions connect ideas by signaling relationships such as contrast, addition, causation, or sequence. 'Without urgent action to address these interconnected threats, many reef systems could collapse within decades.' provides the clearest logical link between the ideas presented, maintaining coherence without redundancy.

QUESTION 31

Read the sentences and answer the question. (1) The industrial revolution transformed manufacturing processes. (2) [blank] it fundamentally changed social structures, creating new urban working classes and shifting political power. Which transitional word or phrase best fits the blank?

A) For example,

B) However,

C) Moreover,

D) In conclusion,

Correct Answer: C) Moreover,

Explanation: The correct answer is **C) Moreover,**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option C best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 32

Read the paragraph and answer the question. (1) Regular exercise provides cardiovascular benefits. (2) Studies show it reduces risk of heart disease and stroke. (3) Exercise can improve mental health. (4) It alleviates symptoms of depression and anxiety by releasing endorphins. Which revision would best improve the flow between sentences 2 and 3?

A) Regular exercise provides cardiovascular benefits; for instance, studies show it reduces risk of heart disease and stroke. Beyond physical health, exercise can improve mental health.

B) Regular exercise provides cardiovascular benefits. Studies show it reduces risk of heart disease and stroke. Exercise can improve mental health. For example, it alleviates symptoms.

C) Regular exercise provides cardiovascular benefits, and exercise can improve mental health too.

D) Regular exercise provides cardiovascular benefits. However, exercise can improve mental health.

Correct Answer: A) Regular exercise provides cardiovascular benefits; for instance, studies show it reduces risk of heart disease and stroke. Beyond physical health, exercise can improve mental health.

Explanation: The correct answer is **A) Regular exercise provides cardiovascular benefits; for instance, studies show it reduces risk of heart disease and stroke. Beyond physical health, exercise can improve mental health.**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option A. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 33

Read the sentences and answer the question. Scientists have long debated the nature of consciousness. [blank] some argue it emerges from complex neural networks, while others propose it requires quantum processes in brain structures. Which transition would best show the contrasting relationship?

A) Similarly,

B) Therefore,

C) On one hand,

D) Subsequently,

Correct Answer: C) On one hand,

Explanation: The correct answer is **C) On one hand,**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option C best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 34

Read the paragraph and identify the sentence that disrupts logical flow. (1) The research began with a comprehensive literature review. (2) Next, we designed a controlled experiment to test our hypothesis. (3) Data collection occurred over six months using standardized instruments. (4) Many researchers face funding challenges. (5) Finally, we analyzed the results using statistical software. Which sentence disrupts the logical flow?

A) Sentence 2

B) Sentence 3

C) Sentence 4

D) Sentence 5

Correct Answer: C) Sentence 4

Explanation: The correct answer is **C) Sentence 4**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 35

Read the paragraph and answer the question. (1) First, the dough must rise for at least one hour in a warm environment. (2) [blank] the dough should be punched down to release excess gas. (3) Shape it into loaves and allow a second, shorter rise. (4) Bake at 375 degrees for 25-30 minutes. Which transition best fits the blank to show the sequential relationship?

A) In contrast,

B) For instance,

C) After this period,

D) On the other hand,

Correct Answer: C) After this period,

Explanation: The correct answer is **C) After this period,**. Effective transitions connect ideas by signaling relationships such as contrast, addition, causation, or sequence. 'After this period,' provides the clearest logical link between the ideas presented, maintaining coherence without redundancy.

QUESTION 36

Which revision best improves sentence variety and style? Original: 'The storm approached. The sky darkened. The wind increased. People sought shelter.'

A) The storm approached, and the sky darkened, and the wind increased, and people sought shelter.

B) As the storm approached, the sky darkened and the wind increased, sending people rushing for shelter.

C) The storm approached. The sky, it darkened. The wind, it increased. People, they sought shelter.

D) The approaching storm darkened the sky. The increasing wind sent people to shelter. The storm came.

Correct Answer: B) As the storm approached, the sky darkened and the wind increased, sending people rushing for shelter.

Explanation: The correct answer is **B) As the storm approached, the sky darkened and the wind increased, sending people rushing for shelter.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 37

Read the sentence and answer the question. 'The reason why the experiment failed was because of the fact that there was contamination in the samples.' Which revision eliminates wordiness most effectively?

A) The reason why the experiment failed was due to contamination in the samples.

B) The experiment failed because there was contamination that was in the samples.

C) The experiment failed because of sample contamination.

D) The experiment, it failed, and the reason was because there was contamination in the samples.

Correct Answer: C) The experiment failed because of sample contamination.

Explanation: The correct answer is **C) The experiment failed because of sample contamination.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 38

Which sentence best maintains a consistent academic tone? The paragraph discusses climate change research.

A) Scientists are totally freaking out about the data showing accelerated ice melt.

B) Researchers have observed alarming rates of ice sheet deterioration that exceed previous projections.

C) The ice is melting way faster than anyone thought, which is pretty scary.

D) Basically, the ice caps are melting super quick and it's a big problem.

Correct Answer: B) Researchers have observed alarming rates of ice sheet deterioration that exceed previous projections.

Explanation: The correct answer is **B) Researchers have observed alarming rates of ice sheet deterioration that exceed previous projections.**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'researchers have observed alarming rates of ice sheet deterioration that exceed previous projections.' as the dominant tone.

QUESTION 39

Read the sentences and identify which revision improves clarity. Original: 'The committee discussed the proposal extensively, and after considering various perspectives and examining multiple alternatives, they ultimately reached a decision to approve it with minor modifications.'

A) The committee discussed the proposal extensively. After considering various perspectives, they examined multiple alternatives. They ultimately reached a decision to approve it with minor modifications.

B) After extensive discussion and consideration of alternatives, the committee approved the proposal with minor modifications.

C) The committee, they discussed the proposal extensively, and they considered various perspectives, and they examined multiple alternatives, and then they approved it with modifications.

D) The proposal was discussed extensively by the committee, and various perspectives were considered by them, and multiple alternatives were examined by them, and approval with minor modifications was their ultimate decision.

Correct Answer: B) After extensive discussion and consideration of alternatives, the committee approved the proposal with minor modifications.

Explanation: The correct answer is **B) After extensive discussion and consideration of alternatives, the committee approved the proposal with minor modifications.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 40

Which revision best adjusts the writing for a general audience rather than specialists? Original: 'The pathogen exhibits zoonotic transmission dynamics, with the R0 value indicating high transmissibility in immunologically naive populations.'

A) The disease spreads from animals to humans and transmits easily among people who have not been previously exposed.

B) The pathogen's zoonotic nature and elevated basic reproduction number suggest significant transmission potential in susceptible cohorts.

C) Zoonotic transmission dynamics characterize the pathogen's epidemiological profile.

D) The R0 value of the pathogen indicates high transmissibility.

Correct Answer: A) The disease spreads from animals to humans and transmits easily among people who have not been previously exposed.

Explanation: The correct answer is **A) The disease spreads from animals to humans and transmits easily among people who have not been previously exposed.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 41

Which sentence has correct subject-verb agreement?

A) The collection of rare books are housed in the library's special archive.

B) Each of the students have submitted their research proposal.

C) Neither the manager nor the employees was informed about the policy change.

D) The data from multiple studies suggest a strong correlation between the variables.

Correct Answer: D) The data from multiple studies suggest a strong correlation between the variables.

Explanation: The correct answer is **D) The data from multiple studies suggest a strong correlation between the variables.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option D is grammatically correct.

QUESTION 42

Which sentence demonstrates correct pronoun-antecedent agreement?

A) Every scientist must submit their findings by Friday.

B) The team celebrated their victory with enthusiasm.

C) Each participant should bring his or her own materials.

D) The committee published their report after the investigation.

Correct Answer: C) Each participant should bring his or her own materials.

Explanation: The correct answer is **C) Each participant should bring his or her own materials.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option C is grammatically correct.

QUESTION 43

Which sentence uses verb tenses correctly?

A) By the time we arrived, the concert already started.

B) She has lived in Tokyo for five years before moving to Seoul.

C) When I finish this project, I will have been working on it for six months.

D) The archaeologists discovered artifacts that are buried for centuries.

Correct Answer: C) When I finish this project, I will have been working on it for six months.

Explanation: The correct answer is **C) When I finish this project, I will have been working on it for six months.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option C corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 44

Which sentence demonstrates correct parallel structure?

A) The job requires typing skills, attention to detail, and you must be good at communication.

B) The workshop focuses on developing leadership, how to collaborate, and strategic thinking.

C) She enjoys reading novels, watching foreign films, and to cook international cuisine.

D) The program aims to reduce poverty, improve healthcare access, and strengthen education systems.

Correct Answer: D) The program aims to reduce poverty, improve healthcare access, and strengthen education systems.

Explanation: The correct answer is **D) The program aims to reduce poverty, improve healthcare access, and strengthen education systems.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option D maintains consistent grammatical form across all listed or compared elements.

QUESTION 45

Which sentence correctly places modifiers?

A) Walking through the museum, the ancient sculptures impressed the visitors.

B) The professor explained the theory to the students that had revolutionized physics.

C) Having completed the training, the certification was awarded to the nurses.

D) After reviewing the applications, the committee selected three finalists.

Correct Answer: D) After reviewing the applications, the committee selected three finalists.

Explanation: The correct answer is **D) After reviewing the applications, the committee selected three finalists.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option D corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 46

Which sentence correctly uses pronouns?

A) Between you and I, the decision seems questionable.

B) The disagreement was between he and his colleague.

C) The prize was awarded to Maria and me.

D) Us employees deserve better working conditions.

Correct Answer: C) The prize was awarded to Maria and me.

Explanation: The correct answer is **C) The prize was awarded to Maria and me.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option C uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 47

Which sentence uses punctuation correctly?

A) The study examined three variables: temperature, humidity, and air pressure.

B) The study examined three variables; temperature, humidity, and air pressure.

C) The study examined three variables, temperature, humidity, and air pressure.

D) The study examined three variables; temperature; humidity; and air pressure.

Correct Answer: A) The study examined three variables: temperature, humidity, and air pressure.

Explanation: The correct answer is **A) The study examined three variables: temperature, humidity, and air pressure.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 48

Which sentence correctly uses apostrophes?

A) The childrens' toys were scattered across the playroom.

B) Its important to check the documents accuracy before submission.

C) The company's profits exceeded analysts' expectations.

D) The student's complained about their grades to the instructor.

Correct Answer: C) The company's profits exceeded analysts' expectations.

Explanation: The correct answer is **C) The company's profits exceeded analysts' expectations.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

ELAR DIAGNOSTIC

TSIA2 ELAR Diagnostic Exam 4 — 2026

48 Questions — Answer Key with Explanations

QUESTION 1

Read the passage and answer the question. The lighthouse keeper climbed the spiral stairs for the thirty-thousandth time, each step worn smooth by his decades of ascent. From the lantern room, he watched the same horizon he had studied for forty years, yet tonight it felt different—the sea seemed to whisper promises of changes he would never witness, of a world moving forward while he remained fixed in place, a beacon for travelers who never stayed. What does the lighthouse most likely symbolize in this passage?

A) The dangers of ocean navigation

B) The isolation and permanence of the keeper's existence

C) The advancement of modern technology

D) The beauty of coastal landscapes

Correct Answer: B) The isolation and permanence of the keeper's existence

Explanation: The correct answer is **B) The isolation and permanence of the keeper's existence**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'the isolation and permanence of the keeper's existence'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 2

Read the passage and answer the question. Grandmother's hands told stories her voice never would—the crooked finger broken protecting her sister, the burn scar from pulling her child from a fire, the calluses from two decades in the factory. Each mark was a chapter, each wrinkle a paragraph in the book of her survival. Which literary technique is primarily demonstrated in this passage?

A) Personification giving human qualities to inanimate objects

B) Extended metaphor comparing hands to a written narrative

C) Hyperbole exaggerating physical characteristics

D) Irony expressing the opposite of literal meaning

Correct Answer: B) Extended metaphor comparing hands to a written narrative

Explanation: The correct answer is **B) Extended metaphor comparing hands to a written narrative**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 3

Read the passage and answer the question. Santiago's pride had always been his greatest strength and his fatal flaw. It drove him to impossible achievements but blinded him to the wisdom of retreat. When the storm came, that same pride kept him at the helm when prudence dictated surrender, and in the end, he lost everything he had fought to preserve. How does the characterization of Santiago's pride function in the narrative?

A) It is purely negative and leads only to failure

B) It serves as a tragic flaw that drives both success and downfall

C) It demonstrates that pride is always destructive

D) It shows that Santiago learns nothing from his experiences

Correct Answer: B) It serves as a tragic flaw that drives both success and downfall

Explanation: The correct answer is **B) It serves as a tragic flaw that drives both success and downfall**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 4

Read the passage and answer the question. In the opening chapter, the author describes the village as 'a place where time moved differently, where the modern world pressed against the boundaries but never quite penetrated, where old ways persisted not from stubbornness but from a different understanding of what progress meant.' What does this passage suggest about the story's setting?

A) The village is primitive and resistant to all change

B) The setting represents a deliberate alternative to mainstream values

C) The village is completely isolated from external influences

D) The residents are ignorant of technological advances

Correct Answer: B) The setting represents a deliberate alternative to mainstream values

Explanation: The correct answer is **B) The setting represents a deliberate alternative to mainstream values**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'The setting represents a deliberate alternative to mainstream values', making it the best-supported inference over the other options.

QUESTION 5

Read the passage and answer the question. The mirror showed her a stranger—same features, same eyes, but something fundamental had shifted. The person who had entered the cave three days ago no longer existed; in her place stood someone who had confronted her deepest fear and emerged transformed. The physical journey was complete, but she understood now it had always been about the internal passage. What is the central theme illustrated in this passage?

A) The importance of physical fitness and outdoor adventure

B) The dangers of exploring caves without proper equipment

C) Internal transformation through confronting personal challenges

D) The unreliability of mirrors and self-perception

Correct Answer: C) Internal transformation through confronting personal challenges

Explanation: The correct answer is **C) Internal transformation through confronting personal challenges**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 6

Read the passage and answer the question. The author employs a non-linear narrative structure, beginning with the protagonist's present-day obscurity, flashing back to her moment of triumph, then revealing the choices that led from one to the other. This structure forces readers to question assumptions about success and failure, examining how we judge lives not yet fully lived. What is the primary effect of this narrative technique?

A) It confuses readers and makes the story harder to follow

B) It creates suspense about what will happen next

C) It encourages deeper reflection on the nature of success

D) It demonstrates the author's technical writing skills

Correct Answer: C) It encourages deeper reflection on the nature of success

Explanation: The correct answer is **C) It encourages deeper reflection on the nature of success**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 7

Read the passage and answer the question. The city slept beneath a blanket of snow, its harsh edges softened, its noise muffled, its frantic pace momentarily suspended. In this transformed landscape, enemies became fellow travelers struggling through drifts, strangers offered hands to those who stumbled, and the usual barriers of class and circumstance melted like the flakes themselves. What does the snow symbolize in this passage?

A) The arrival of winter weather

B) A temporary transformation that reveals underlying human connection

C) The economic problems facing the city

D) The permanent change of social structures

Correct Answer: B) A temporary transformation that reveals underlying human connection

Explanation: The correct answer is **B) A temporary transformation that reveals underlying human connection**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'a temporary transformation that reveals underlying human connection'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 8

Read the passage and answer the question. 'You speak of justice as if it were a simple thing,' the judge said, his voice heavy with years of impossible decisions. 'But I have seen the innocent condemned by perfect legal procedure and the guilty freed by technicalities. Justice and law are not always the same country, and I am tired of being forced to choose between them.' What internal conflict does this dialogue reveal?

A) The judge's desire to retire from his position

B) The tension between legal requirements and moral principles

C) The judge's incompetence in his professional role

D) The corruption of the entire legal system

Correct Answer: B) The tension between legal requirements and moral principles

Explanation: The correct answer is **B) The tension between legal requirements and moral principles**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 9

Read the passage and answer the question. The final image—a single seed pod carried on the wind, drifting over the ruined city toward unknown soil—suggests both the destruction of what was and the possibility of what might grow from the ashes. This ambiguous ending refuses to provide easy answers, instead trusting readers to sit with complexity. How does this conclusion affect the work's overall meaning?

A) It provides clear resolution to all plot conflicts

B) It maintains thematic complexity by balancing loss and possibility

C) It frustrates readers by avoiding a definitive ending

D) It suggests the author could not decide how to conclude the story

Correct Answer: B) It maintains thematic complexity by balancing loss and possibility

Explanation: The correct answer is **B) It maintains thematic complexity by balancing loss and possibility**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'It maintains thematic complexity by balancing loss and possibility', making it the best-supported inference over the other options.

QUESTION 10

Read the passage and answer the question. CRISPR-Cas9 gene editing technology has revolutionized biological research by allowing precise modification of DNA sequences. This system, adapted from bacterial immune mechanisms, enables scientists to add, remove, or alter genetic material with unprecedented accuracy. Applications range from developing disease-resistant crops to potential treatments for genetic disorders. However, the technology also raises ethical concerns about unintended consequences and the implications of human genetic modification. What is the main idea of this passage?

A) CRISPR technology comes from bacterial immune systems

B) Genetic modification will solve all human diseases

C) CRISPR offers powerful applications but also raises ethical questions

D) Scientists should not be allowed to modify genetic material

Correct Answer: C) CRISPR offers powerful applications but also raises ethical questions

Explanation: The correct answer is **C) CRISPR offers powerful applications but also raises ethical questions**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'CRISPR offers powerful applications but also raises ethical questions' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 11

Read the passage and answer the question. The circular economy represents a fundamental departure from the traditional linear model of take-make-dispose. Instead, it designs waste out of the system by keeping materials in use through reuse, repair, refurbishment, and recycling. Products are designed for disassembly and material recovery from the outset. This approach reduces resource extraction, minimizes pollution, and can create new business opportunities in repair and remanufacturing sectors. Which detail best supports the passage's main concept?

A) The circular economy is different from linear models

B) Products are designed for disassembly and material recovery from the beginning

C) Some businesses focus on repair services

D) Pollution is a significant environmental problem

Correct Answer: B) Products are designed for disassembly and material recovery from the beginning

Explanation: The correct answer is **B) Products are designed for disassembly and material recovery from the beginning**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Products are designed for disassembly and material recovery from the beginning' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 12

Read the passage and answer the question. The text first defines neuroplasticity, then explains how experiences physically reshape neural pathways, next describes research on learning and memory, and finally discusses implications for education and rehabilitation. What organizational pattern does this passage follow?

A) Compare and contrast between different theories

B) Chronological order of historical discoveries

C) Problem and solution with proposed fixes

D) Logical progression from definition to application

Correct Answer: D) Logical progression from definition to application

Explanation: The correct answer is **D) Logical progression from definition to application**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option D. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 13

Read the passage and answer the question. While renewable energy sources like solar and wind produce no emissions during operation, their manufacturing requires energy and materials. Solar panel production uses silicon, silver, and rare earth elements; wind turbines require steel, concrete, and fiberglass. The author includes these details most likely to:

A) Argue that renewable energy is worse than fossil fuels

B) Provide a balanced perspective on environmental impacts

C) Discourage investment in renewable technologies

D) Explain the technical specifications of energy systems

Correct Answer: B) Provide a balanced perspective on environmental impacts

Explanation: The correct answer is **B) Provide a balanced perspective on environmental impacts**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Provide a balanced perspective on environmental impacts', making it the best-supported inference over the other options.

QUESTION 14

Read the passage and answer the question. Antibiotic resistance emerges when bacteria evolve mechanisms to survive drug exposure. Overuse in human medicine and agriculture accelerates this process by creating selective pressure favoring resistant strains. As effective antibiotics become scarcer, infections once easily treated may become life-threatening again. Based on this information, what can be inferred?

A) All antibiotics will stop working immediately

B) Bacteria are inherently evil organisms

C) Current antibiotic use practices contribute to future health risks

D) Agriculture has no connection to human medicine

Correct Answer: C) Current antibiotic use practices contribute to future health risks

Explanation: The correct answer is **C) Current antibiotic use practices contribute to future health risks**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Current antibiotic use practices contribute to future health risks', making it the best-supported inference over the other options.

QUESTION 15

Read the passage and answer the question. The phenomenon of linguistic relativity suggests that language shapes thought. The Sapir-Whorf hypothesis, in its strong form, proposes that language determines cognitive categories; in its weaker form, it suggests language influences but does not determine thought patterns. In this context, what does 'linguistic relativity' most nearly mean?

A) The idea that all languages are equally complex

B) The relationship between language and thought processes

C) The relative difficulty of learning different languages

D) The comparison of grammar across language families

Correct Answer: B) The relationship between language and thought processes

Explanation: The correct answer is **B) The relationship between language and thought processes**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'The relationship between language and thought processes', making it the best-supported inference over the other options.

QUESTION 16

Read the passage and answer the question. Ocean acidification occurs when atmospheric CO2 dissolves in seawater, forming carbonic acid and lowering pH levels. This process has accelerated significantly since industrialization, with current ocean pH about 0.1 units lower than pre-industrial levels—a 30% increase in acidity. This affects marine organisms, particularly those with calcium carbonate shells or skeletons, which dissolve in more acidic conditions. Which sentence best summarizes the main idea?

A) The ocean contains carbonic acid

B) Industrialization has affected global systems

C) Increasing ocean acidity from CO2 absorption threatens marine life

D) Some organisms have calcium carbonate structures

Correct Answer: C) Increasing ocean acidity from CO2 absorption threatens marine life

Explanation: The correct answer is **C) Increasing ocean acidity from CO2 absorption threatens marine life**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Increasing ocean acidity from CO2 absorption threatens marine life' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 17

Read the passage and answer the question. The passage discusses three types of muscle tissue: skeletal muscle, which attaches to bones and enables voluntary movement; cardiac muscle, which forms the heart and contracts rhythmically without conscious control; and smooth muscle, which lines internal organs and blood vessels, regulating involuntary functions like digestion. What is the author's primary purpose?

A) To persuade readers that one muscle type is superior

B) To inform readers about the characteristics of different muscle types

C) To entertain readers with interesting biological facts

D) To instruct readers on how to build muscle mass

Correct Answer: B) To inform readers about the characteristics of different muscle types

Explanation: The correct answer is **B) To inform readers about the characteristics of different muscle types**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 18

Read the passage and answer the question. Dark matter comprises approximately 85% of the universe's mass, yet it neither emits nor absorbs light, making it invisible to telescopes. Its existence is inferred from gravitational effects on visible matter—galaxies rotate too quickly to be held together by visible mass alone, and gravitational lensing patterns suggest more mass than we can see. What conclusion is best supported by this information?

A) Telescopes are inadequate tools for astronomical research

B) Most of the universe's mass is undetectable by direct observation but evident through gravitational effects

C) Dark matter is a theoretical concept with no empirical support

D) Galaxies will eventually fly apart due to rotation

Correct Answer: B) Most of the universe's mass is undetectable by direct observation but evident through gravitational effects

Explanation: The correct answer is **B) Most of the universe's mass is undetectable by direct observation but evident through gravitational effects**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Most of the universe's mass is undetectable by direct observation but evident through gravitational effects', making it the best-supported inference over the other options.

QUESTION 19

Read the argument and answer the question. Advocates for ranked-choice voting argue that it produces more representative outcomes, reduces negative campaigning, and eliminates the 'spoiler effect' where similar candidates split votes. Critics contend that it is confusing for voters, expensive to implement, and that traditional runoff elections achieve similar goals more transparently. What is the main claim of ranked-choice voting advocates?

A) Traditional elections are completely broken and corrupt

B) Ranked-choice voting improves democratic representation and campaign quality

C) All voting systems are equally effective

D) Negative campaigning should be illegal

Correct Answer: B) Ranked-choice voting improves democratic representation and campaign quality

Explanation: The correct answer is **B) Ranked-choice voting improves democratic representation and campaign quality**. Similar figures have proportional corresponding sides and equal corresponding angles. Setting up a proportion with the scale factor and solving for the unknown side yields Ranked-choice voting improves democratic representation and campaign quality.

QUESTION 20

Read the argument and answer the question. The author states: 'A comprehensive study of 50,000 students across 200 schools found that those who received mindfulness training showed 15% improvement in attention span, 11% reduction in anxiety symptoms, and better conflict resolution skills compared to control groups.' What type of evidence does this represent?

A) Personal opinion and speculation

B) Anecdotal stories from individual students

C) Quantitative research data from a large-scale study

D) Expert testimony from psychologists

Correct Answer: C) Quantitative research data from a large-scale study

Explanation: The correct answer is **C) Quantitative research data from a large-scale study**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Quantitative research data from a large-scale study' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 21

Read the argument and answer the question. 'Either we ban all plastic immediately, or we accept the complete destruction of ocean ecosystems. There is no middle ground—you are either for the environment or against it.' What logical fallacy does this argument demonstrate?

A) Slippery slope assuming cascading consequences

B) False dilemma presenting only two extreme options

C) Ad hominem attacking people instead of arguments

D) Circular reasoning using the conclusion as evidence

Correct Answer: B) False dilemma presenting only two extreme options

Explanation: The correct answer is **B) False dilemma presenting only two extreme options**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to False dilemma presenting only two extreme options.

QUESTION 22

Read the argument and answer the question. 'Dr. Martinez is a leading climate scientist with 30 years of research experience and over 200 peer-reviewed publications. Her analysis indicates that current emission reduction targets are insufficient to prevent severe climate impacts.' How should this statement be classified?

A) As unsupported opinion with no credibility

B) As expert testimony from a qualified source

C) As emotional manipulation through fear

D) As statistical data requiring verification

Correct Answer: B) As expert testimony from a qualified source

Explanation: The correct answer is **B) As expert testimony from a qualified source**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 23

Read the argument and answer the question. 'Free college tuition would provide equal educational opportunity for all students. While some worry about funding mechanisms and potential quality impacts, and others question whether college is the right path for everyone, the fundamental principle of equal access to education must take precedence.' Which element represents acknowledgment of counterarguments?

A) Free college tuition would provide equal educational opportunity

B) The fundamental principle of equal access to education

C) While some worry about funding mechanisms and potential quality impacts

D) For all students

Correct Answer: C) While some worry about funding mechanisms and potential quality impacts

Explanation: The correct answer is **C) While some worry about funding mechanisms and potential quality impacts**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 24

Read the argument and answer the question. 'My grandfather smoked two packs a day and lived to 95, so obviously smoking is not really that dangerous.' What weakness in reasoning does this demonstrate?

A) Using a single anecdote instead of representative evidence

B) Providing too much statistical data

C) Presenting both sides of the issue equally

D) Using overly technical medical language

Correct Answer: A) Using a single anecdote instead of representative evidence

Explanation: The correct answer is **A) Using a single anecdote instead of representative evidence**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to Using a single anecdote instead of representative evidence.

QUESTION 25

Read the argument and answer the question. The author presents research showing prison education programs reduce recidivism by 43%, cost analysis demonstrating taxpayer savings, and testimonials from program participants. She then addresses concerns about 'coddling criminals' by explaining that effective rehabilitation serves public safety. How would you characterize this argumentative approach?

A) One-sided advocacy ignoring opposing views

B) Weak argumentation lacking evidence

C) Multi-faceted approach using varied evidence and addressing counterarguments

D) Purely emotional appeal without logic

Correct Answer: C) Multi-faceted approach using varied evidence and addressing counterarguments

Explanation: The correct answer is **C) Multi-faceted approach using varied evidence and addressing counterarguments**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Multi-faceted approach using varied evidence and addressing counterarguments' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 26

Read the paragraph and answer the question. (1) Renewable energy technology has advanced dramatically in recent years. (2) Solar panel efficiency has doubled while costs have dropped by 90%. (3) Many celebrities promote environmental causes. (4) Wind turbine capacity factors now exceed 50% in optimal locations. Which sentence should be removed because it lacks relevant support for the main idea?

A) Sentence 1

B) Sentence 2

C) Sentence 3

D) Sentence 4

Correct Answer: C) Sentence 3

Explanation: The correct answer is **C) Sentence 3**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Sentence 3' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 27

Read the paragraph and answer the question. The writer wants to add evidence supporting the claim that bilingualism provides cognitive benefits. Which sentence would be most effective? 'Learning multiple languages offers advantages beyond communication. [NEW SENTENCE] These skills prove valuable in increasingly globalized workplaces.'

A) Many people around the world speak more than one language.

B) Neuroscience research shows bilingual individuals demonstrate enhanced executive function, including better attention control and problem-solving abilities.

C) Language learning can be challenging and time-consuming.

D) There are thousands of languages spoken worldwide.

Correct Answer: B) Neuroscience research shows bilingual individuals demonstrate enhanced executive function, including better attention control and problem-solving abilities.

Explanation: The correct answer is **B) Neuroscience research shows bilingual individuals demonstrate enhanced executive function, including better attention control and problem-solving abilities.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Neuroscience research shows bilingual individuals demonstrate enhanced executive function, including better attention control and problem-solving abilities.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 28

Read the paragraph and answer the question. (1) Forest bathing, or shinrin-yoku, originated in Japan as a therapeutic practice. (2) It involves mindfully spending time in forest environments. (3) Participants report feeling calmer and more connected to nature. (4) Research indicates the practice lowers cortisol levels and blood pressure. Which sentence would best follow to provide additional support?

A) Many people enjoy hiking in various terrains.

B) Furthermore, studies show forest environments contain phytoncides—compounds released by trees that enhance immune function when inhaled.

C) Japan is known for various cultural practices.

D) Some people prefer urban parks to forests.

Correct Answer: B) Furthermore, studies show forest environments contain phytoncides—compounds released by trees that enhance immune function when inhaled.

Explanation: The correct answer is **B) Furthermore, studies show forest environments contain phytoncides—compounds released by trees that enhance immune function when inhaled.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Furthermore, studies show forest environments contain phytoncides—compounds released by trees that enhance immune function when inhaled.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 29

Read the paragraph and answer the question. (1) The writer argues for implementing composting programs in all city neighborhoods. (2) Food waste comprises 30% of residential garbage. (3) When sent to landfills, organic matter produces methane, a potent greenhouse gas. (4) Composting converts waste into valuable soil amendment while reducing emissions. What addition would most strengthen this argument?

A) A description of different types of compost bins

B) Data from cities where composting programs reduced waste disposal costs and greenhouse emissions

C) Information about what foods can be composted

D) A personal story about the writer's home compost pile

Correct Answer: B) Data from cities where composting programs reduced waste disposal costs and greenhouse emissions

Explanation: The correct answer is **B) Data from cities where composting programs reduced waste disposal costs and greenhouse emissions**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Data from cities where composting programs reduced waste disposal costs and greenhouse emissions' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 30

Read the paragraph and answer the question. (1) Invasive species pose serious threats to native ecosystems. (2) They outcompete indigenous plants and animals for resources. (3) They often lack natural predators in their new environments. (4) Their spread can fundamentally alter habitat structure and function. The writer wants to add a concluding sentence. Which would be most effective?

A) Many invasive species are actually quite interesting organisms.

B) Without aggressive prevention and management strategies, invasive species can cause irreversible ecological damage and economic losses.

C) Some invasive species were introduced accidentally.

D) Ecosystems contain many different types of plants and animals.

Correct Answer: B) Without aggressive prevention and management strategies, invasive species can cause irreversible ecological damage and economic losses.

Explanation: The correct answer is **B) Without aggressive prevention and management strategies, invasive species can cause irreversible ecological damage and economic losses.**. Effective transitions connect ideas by signaling relationships such as contrast, addition, causation, or sequence. 'Without aggressive prevention and management strategies, invasive species can cause irreversible ecological damage and economic losses.' provides the clearest logical link between the ideas presented, maintaining coherence without redundancy.

QUESTION 31

Read the sentences and answer the question. (1) Ancient Greek philosophy emphasized rational inquiry and logical argumentation. (2) [blank] medieval European thought was heavily influenced by religious doctrine and theological concerns. Which transitional phrase best shows the contrasting relationship?

A) Similarly,

B) In contrast,

C) For example,

D) As a result,

Correct Answer: B) In contrast,

Explanation: The correct answer is **B) In contrast,**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option B best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 32

Read the paragraph and answer the question. (1) Coral reefs support extraordinary biodiversity. (2) They provide habitat for thousands of marine species. (3) Reefs protect coastlines from storm damage. (4) They buffer wave energy and prevent erosion. Which revision best improves flow between sentences 2 and 3?

A) Coral reefs support extraordinary biodiversity, providing habitat for thousands of marine species. In addition to their biological importance, reefs protect coastlines from storm damage.

B) Coral reefs support extraordinary biodiversity. They provide habitat for thousands of marine species and also reefs protect coastlines.

C) Coral reefs support biodiversity. Habitat is provided. Coastlines are protected too.

D) Coral reefs support extraordinary biodiversity. However, reefs protect coastlines from storm damage.

Correct Answer: A) Coral reefs support extraordinary biodiversity, providing habitat for thousands of marine species. In addition to their biological importance, reefs protect coastlines from storm damage.

Explanation: The correct answer is **A) Coral reefs support extraordinary biodiversity, providing habitat for thousands of marine species. In addition to their biological importance, reefs protect coastlines from storm damage.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Coral reefs support extraordinary biodiversity, providing habitat for thousands of marine species. In addition to their biological importance, reefs protect coastlines from storm damage.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 33

Read the sentences and answer the question. The experiment yielded unexpected results. [blank] we revised our hypothesis and designed a follow-up study to investigate the anomalous findings. Which transition best indicates the logical relationship?

A) Similarly,

B) Consequently,

C) Nevertheless,

D) Meanwhile,

Correct Answer: B) Consequently,

Explanation: The correct answer is **B) Consequently,**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option B best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 34

Read the paragraph and identify the sentence that disrupts logical flow. (1) Begin by preheating the oven to 350 degrees. (2) While it heats, prepare the batter by combining dry ingredients. (3) Baking is both a science and an art. (4) Next, add wet ingredients and mix until just combined. (5) Pour into prepared pans and bake for 25 minutes. Which sentence should be removed?

A) Sentence 2

B) Sentence 3

C) Sentence 4

D) Sentence 5

Correct Answer: B) Sentence 3

Explanation: The correct answer is **B) Sentence 3**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 35

Read the paragraph and answer the question. (1) The initial survey established baseline data on participant attitudes. (2) [blank] we conducted weekly interventions over a three-month period. (3) Finally, we administered post-intervention surveys to measure attitude changes. Which transition best fits the blank to show the sequential relationship?

A) In other words,

B) Following this,

C) On the contrary,

D) For instance,

Correct Answer: B) Following this,

Explanation: The correct answer is **B) Following this,**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'following this,' as the dominant tone.

QUESTION 36

Which revision improves sentence variety? Original: 'The research team collected data. They analyzed the results. They published their findings. The scientific community responded positively.'

A) The research team collected data, and they analyzed the results, and they published their findings, and the scientific community responded positively.

B) After collecting and analyzing data, the research team published findings that received positive response from the scientific community.

C) The research team, they collected data, they analyzed results, they published findings, the community responded.

D) Data was collected. Results were analyzed. Findings were published. Response was positive.

Correct Answer: B) After collecting and analyzing data, the research team published findings that received positive response from the scientific community.

Explanation: The correct answer is **B) After collecting and analyzing data, the research team published findings that received positive response from the scientific community.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 37

Read the sentence and answer the question. 'In spite of the fact that there was a significant amount of opposition, the committee made the decision to move forward with the implementation of the new policy.' Which revision most effectively eliminates wordiness?

A) Despite opposition, the committee decided to implement the new policy.

B) In spite of the fact that there was opposition, the committee decided on implementing the new policy.

C) Although there was a significant amount of opposition, the committee made the decision to move forward.

D) The committee, despite the fact that opposition existed, moved forward with implementation of the policy.

Correct Answer: A) Despite opposition, the committee decided to implement the new policy.

Explanation: The correct answer is **A) Despite opposition, the committee decided to implement the new policy.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 38

Which sentence maintains appropriate academic tone for a research report?

A) The results were totally crazy and blew our minds completely.

B) The findings revealed unexpected patterns that warrant further investigation.

C) We were super shocked by what the data showed us.

D) The outcome was pretty weird and didn't make much sense.

Correct Answer: B) The findings revealed unexpected patterns that warrant further investigation.

Explanation: The correct answer is **B) The findings revealed unexpected patterns that warrant further investigation.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 39

Read the sentence and identify the clearest revision. Original: 'The implementation of the initiative resulted in outcomes that were characterized by improvement in multiple metrics that had been previously identified as areas requiring enhancement.'

A) The initiative's implementation resulted in outcomes characterized by improvement in multiple previously identified metrics requiring enhancement.

B) The initiative improved several previously identified problem areas.

C) Implementation of the initiative resulted in improved outcomes in multiple metrics.

D) The initiative, when implemented, resulted in multiple metrics showing improvement in areas that required it.

Correct Answer: B) The initiative improved several previously identified problem areas.

Explanation: The correct answer is **B) The initiative improved several previously identified problem areas.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 40

Which revision best adjusts technical content for a general audience? Original: 'The myocardial infarction resulted from atherosclerotic plaque rupture causing thrombotic occlusion of the left anterior descending coronary artery.'

A) The heart attack occurred when a cholesterol deposit burst and formed a blood clot that blocked a major heart artery.

B) The MI resulted from plaque rupture causing LAD occlusion.

C) Atherosclerotic processes led to acute coronary syndrome.

D) The myocardial infarction happened because of artery blockage.

Correct Answer: A) The heart attack occurred when a cholesterol deposit burst and formed a blood clot that blocked a major heart artery.

Explanation: The correct answer is **A) The heart attack occurred when a cholesterol deposit burst and formed a blood clot that blocked a major heart artery.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 41

Which sentence demonstrates correct subject-verb agreement?

A) The team of researchers have published their findings.

B) Neither the students nor the teacher were present.

C) The criteria for acceptance is clearly stated.

D) The number of applications has increased significantly.

Correct Answer: D) The number of applications has increased significantly.

Explanation: The correct answer is **D) The number of applications has increased significantly.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option D is grammatically correct.

QUESTION 42

Which sentence uses pronouns correctly?

A) Every employee must submit his or her timesheet by Friday.

B) The company posted their quarterly earnings.

C) Each of the participants brought their own materials.

D) Neither of the solutions were effective in their application.

Correct Answer: A) Every employee must submit his or her timesheet by Friday.

Explanation: The correct answer is **A) Every employee must submit his or her timesheet by Friday.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option A uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 43

Which sentence uses verb tenses correctly?

A) By next month, she will be working here for five years.

B) He has been living in Paris before he moved to London.

C) After we will arrive, we can begin the meeting.

D) The students already completed the assignment when the teacher collected it.

Correct Answer: A) By next month, she will be working here for five years.

Explanation: The correct answer is **A) By next month, she will be working here for five years.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 44

Which sentence maintains parallel structure?

A) The training covers conflict resolution, how to communicate, and team building.

B) Her goals include finishing her degree, finding a job, and to start a family.

C) The position requires analyzing data, writing reports, and presentation skills.

D) Success depends on careful planning, thorough research, and executing effectively.

Correct Answer: A) The training covers conflict resolution, how to communicate, and team building.

Explanation: The correct answer is **A) The training covers conflict resolution, how to communicate, and team building.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option A maintains consistent grammatical form across all listed or compared elements.

QUESTION 45

Which sentence correctly places modifiers?

A) Covered in chocolate, the children devoured the strawberries.

B) The researcher presented findings to the committee that challenged existing theories.

C) Having been repaired recently, the mechanic said the car should run well.

D) Broken into pieces, we found the vase on the floor.

Correct Answer: B) The researcher presented findings to the committee that challenged existing theories.

Explanation: The correct answer is **B) The researcher presented findings to the committee that challenged existing theories.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 46

Which sentence uses pronouns correctly?

A) The award was given to she and her partner.

B) Him and his colleague presented the research.

C) Between you and me, the proposal needs revision.

D) The manager asked my coworker and I to stay late.

Correct Answer: C) Between you and me, the proposal needs revision.

Explanation: The correct answer is **C) Between you and me, the proposal needs revision.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option C uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 47

Which sentence uses punctuation correctly?

A) We need three items; notebooks, pens, and folders.

B) The conference included sessions on: marketing, finance, and operations.

C) She achieved her goal; however, the cost was higher than expected.

D) The team completed the project, however they exceeded the budget.

Correct Answer: C) She achieved her goal; however, the cost was higher than expected.

Explanation: The correct answer is **C) She achieved her goal; however, the cost was higher than expected.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

QUESTION 48

Which sentence correctly uses apostrophes?

A) The womens' rights movement gained momentum.

B) Its essential to verify the documents accuracy.

C) Both teams' performances exceeded their coaches' expectations.

D) The student's submitted their essays' on time.

Correct Answer: C) Both teams' performances exceeded their coaches' expectations.

Explanation: The correct answer is **C) Both teams' performances exceeded their coaches' expectations.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

ELAR DIAGNOSTIC

TSIA2 ELAR Diagnostic Exam 5 — 2026

48 Questions — Answer Key with Explanations

QUESTION 1

Read the passage and answer the question. The old photograph album lay open on the table, its pages brittle with age, its images fading into sepia ghosts. Each picture was a doorway to a world that no longer existed, populated by people who would never age beyond the moment captured. Time, the great thief, had stolen their futures but preserved this single instant of their past, freezing them in perpetual youth while the world moved on without them. What is the primary theme of this passage?

A) The technical process of early photography

B) The relationship between memory, time, and mortality

C) The importance of preserving family heirlooms

D) The superiority of modern digital photography

Correct Answer: B) The relationship between memory, time, and mortality

Explanation: The correct answer is **B) The relationship between memory, time, and mortality**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 2

Read the passage and answer the question. Lena had built her life on certainties—scheduled routines, calculated risks, predetermined outcomes. But love, she discovered, respected none of these carefully constructed boundaries. It arrived unannounced, disrupted her plans, and demanded she choose between the safety of her ordered world and the terrifying freedom of the unknown. Which literary element is primarily developed in this passage?

A) External conflict between characters

B) Internal conflict revealing character transformation

C) Detailed physical description of setting

D) Historical background and context

Correct Answer: B) Internal conflict revealing character transformation

Explanation: The correct answer is **B) Internal conflict revealing character transformation**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 3

Read the passage and answer the question. The river runs through this novel as both setting and metaphor—dividing the town literally while symbolizing the social barriers that separate rich from poor, old families from new immigrants, tradition from progress. Characters who bridge the river, physically or socially, become agents of change and often pay a price for crossing. How does the river function in the narrative?

A) It provides realistic geographical detail

B) It serves as both literal setting and symbolic representation of division

C) It creates suspense about potential flooding

D) It demonstrates the author's knowledge of hydrology

Correct Answer: B) It serves as both literal setting and symbolic representation of division

Explanation: The correct answer is **B) It serves as both literal setting and symbolic representation of division**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'it serves as both literal setting and symbolic representation of division'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 4

Read the passage and answer the question. The story's opening line—'The day they came for the books, we knew the war was already lost'—immediately establishes the stakes and foreshadows the tragedy to come. This technique draws readers into a world where knowledge itself has become dangerous, compelling them to continue reading to understand how society reached this point. What is the primary effect of this opening strategy?

A) It provides complete background information

B) It creates immediate intrigue and establishes thematic concerns

C) It confuses readers with insufficient context

D) It reveals the ending too early

Correct Answer: B) It creates immediate intrigue and establishes thematic concerns

Explanation: The correct answer is **B) It creates immediate intrigue and establishes thematic concerns**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 5

Read the passage and answer the question. Professor Chen spoke in measured tones, each word precisely chosen, his lectures dense with references and subtle connections that rewarded careful attention. Students either loved or dreaded his classes; there was no middle ground. Those who engaged deeply found him brilliant and transformative; those seeking easy answers found him obscure and frustrating. What method of characterization is primarily employed here?

A) Direct physical description

B) Characterization through speech patterns and others' reactions

C) Extended dialogue revealing personality

D) Background history and childhood experiences

Correct Answer: B) Characterization through speech patterns and others' reactions

Explanation: The correct answer is **B) Characterization through speech patterns and others' reactions**. Tone is revealed through word choice (diction), sentence structure, and the details a writer selects. Examining loaded or emotionally charged words in the passage points to 'characterization through speech patterns and others' reactions' as the dominant tone.

QUESTION 6

Read the passage and answer the question. The abandoned factory stood like a cathedral to a dead god—broken windows its stained glass, rusted machinery its silent congregation, the whole structure a monument to the faith in progress that once sustained this town but had long since moved on to more profitable ground. What is the effect of comparing the factory to a cathedral?

A) It suggests the building should be converted to religious use

B) It emphasizes the industrial era's quasi-religious role in community identity

C) It demonstrates that factories are inherently spiritual places

D) It indicates the author's opposition to organized religion

Correct Answer: B) It emphasizes the industrial era's quasi-religious role in community identity

Explanation: The correct answer is **B) It emphasizes the industrial era's quasi-religious role in community identity**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 7

Read the passage and answer the question. In the climactic scene, the character who has spent the entire novel seeking revenge finally confronts his enemy, only to discover that vengeance provides no satisfaction, no closure, no restoration of what was lost. This moment of recognition forces him—and the reader—to question the very foundation of the justice he has pursued. What literary term best describes this moment?

A) Exposition providing background

B) Anagnorisis or moment of recognition and reversal

C) Comic relief reducing tension

D) Deus ex machina resolving conflict

Correct Answer: B) Anagnorisis or moment of recognition and reversal

Explanation: The correct answer is **B) Anagnorisis or moment of recognition and reversal**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 8

Read the passage and answer the question. The garden had once been her sanctuary, a space of order and beauty she created from chaos. But after her daughter's death, she could not bear to see things bloom and fade, could not participate in the cycle of growth and decay that continued regardless of her grief. Now weeds claimed the beds, and this overgrown wilderness became a more honest reflection of her internal landscape. What does the garden symbolize in this passage?

A) The character's horticultural expertise

B) The changing seasons and passage of time

C) The character's emotional state and inability to maintain order

D) The environmental benefits of native plants

Correct Answer: C) The character's emotional state and inability to maintain order

Explanation: The correct answer is **C) The character's emotional state and inability to maintain order**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'the character's emotional state and inability to maintain order'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 9

Read the passage and answer the question. 'Freedom and security,' the politician declared, 'are not opposites but dance partners. Too much of one without the other and you stumble. The question is not which we choose, but how we maintain the balance while the music keeps changing.' What does this metaphor suggest about the political issue being addressed?

A) Politics is equivalent to dancing

B) The issue requires nuanced balancing rather than absolute choices

C) Security is more important than freedom

D) Politicians are dishonest about their positions

Correct Answer: B) The issue requires nuanced balancing rather than absolute choices

Explanation: The correct answer is **B) The issue requires nuanced balancing rather than absolute choices**. Figurative language creates meaning beyond literal words; the comparison or image in the passage works to convey 'the issue requires nuanced balancing rather than absolute choices'. Eliminating options that describe the literal content of the passage — rather than the figurative effect — leads to this answer.

QUESTION 10

Read the passage and answer the question. Precision medicine represents a paradigm shift from one-size-fits-all treatments to therapies tailored to individual genetic profiles, environmental factors, and lifestyle characteristics. By analyzing a patient's genomic data, doctors can predict disease susceptibility, select medications more likely to be effective, and avoid drugs that may cause adverse reactions. However, implementing precision medicine requires significant infrastructure investment, raises privacy concerns, and may exacerbate healthcare inequities if access is limited to wealthy patients. What is the main idea?

A) Genetic testing is available to all patients

B) Precision medicine offers personalized treatment but faces implementation challenges

C) Traditional medicine is completely obsolete

D) Privacy concerns make genetic testing impossible

Correct Answer: B) Precision medicine offers personalized treatment but faces implementation challenges

Explanation: The correct answer is **B) Precision medicine offers personalized treatment but faces implementation challenges**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Precision medicine offers personalized treatment but faces implementation challenges' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 11

Read the passage and answer the question. The concept of food deserts—urban areas where residents lack access to affordable, nutritious food—has gained recognition as a public health issue. These neighborhoods typically have plenty of convenience stores selling processed foods but few supermarkets offering fresh produce. Research links food deserts to higher rates of obesity, diabetes, and cardiovascular disease. Which detail best supports the passage's main idea about health impacts?

A) Food deserts are located in urban areas

B) Convenience stores sell processed foods

C) Research links food deserts to higher rates of obesity, diabetes, and cardiovascular disease

D) Residents lack access to supermarkets

Correct Answer: C) Research links food deserts to higher rates of obesity, diabetes, and cardiovascular disease

Explanation: The correct answer is **C) Research links food deserts to higher rates of obesity, diabetes, and cardiovascular disease**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'Research links food deserts to higher rates of obesity, diabetes, and cardiovascular disease' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 12

Read the passage and answer the question. The passage first identifies the problem of ocean plastic pollution, then explains the sources and mechanisms of accumulation, next describes the environmental and health consequences, and finally presents potential solutions including improved waste management and alternative materials. What organizational structure is used?

A) Chronological order of historical events

B) Comparison and contrast of different perspectives

C) Problem-solution with causal explanation

D) Spatial description of geographical features

Correct Answer: C) Problem-solution with causal explanation

Explanation: The correct answer is **C) Problem-solution with causal explanation**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 13

Read the passage and answer the question. While electric vehicles produce zero tailpipe emissions, the environmental impact depends on electricity sources. In regions powered by coal, EVs may actually generate more total emissions than efficient gasoline vehicles when manufacturing and electricity generation are considered. In regions with renewable energy, however, EVs demonstrate clear environmental advantages. What is the author's primary purpose in presenting this information?

A) To argue against electric vehicle adoption

B) To provide nuanced analysis of environmental impacts

C) To promote coal power generation

D) To simplify a complex issue

Correct Answer: B) To provide nuanced analysis of environmental impacts

Explanation: The correct answer is **B) To provide nuanced analysis of environmental impacts**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 14

Read the passage and answer the question. Epigenetics studies how environmental factors can alter gene expression without changing DNA sequences themselves. Chemical modifications can turn genes on or off in response to diet, stress, or toxin exposure. Remarkably, some epigenetic changes can be inherited, meaning a parent's environmental experiences may affect offspring health. What can be inferred from this passage?

A) DNA sequences frequently mutate in response to environment

B) Environmental factors can have biological effects across generations

C) Epigenetics proves that all diseases are inherited

D) Gene expression cannot be modified

Correct Answer: B) Environmental factors can have biological effects across generations

Explanation: The correct answer is **B) Environmental factors can have biological effects across generations**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'Environmental factors can have biological effects across generations', making it the best-supported inference over the other options.

QUESTION 15

Read the passage and answer the question. Cognitive load theory suggests that working memory has limited capacity. When instructional design exceeds this capacity with excessive information or poor organization, learning suffers. Effective instruction manages cognitive load through clear structure, appropriate pacing, and strategic use of visuals. In this context, what does 'cognitive load' most nearly mean?

A) The physical weight of educational materials

B) The mental effort required to process information

C) The number of students in a classroom

D) The difficulty level of standardized tests

Correct Answer: B) The mental effort required to process information

Explanation: The correct answer is **B) The mental effort required to process information**. An inference is a logical conclusion drawn from evidence in the text rather than stated outright. The details in the passage collectively support 'The mental effort required to process information', making it the best-supported inference over the other options.

QUESTION 16

Read the passage and answer the question. The immune system comprises two main branches: innate immunity provides immediate, non-specific defense against pathogens, while adaptive immunity develops targeted responses and immunological memory. Vaccines work by training the adaptive immune system to recognize specific pathogens without causing disease, enabling rapid response upon actual exposure. Which sentence best summarizes this passage?

A) The immune system has two branches

B) Vaccines prevent all diseases

C) The immune system includes innate and adaptive components, with vaccines leveraging adaptive immunity's ability to develop targeted, lasting protection

D) Pathogens cause disease in humans

Correct Answer: C) The immune system includes innate and adaptive components, with vaccines leveraging adaptive immunity's ability to develop targeted, lasting protection

Explanation: The correct answer is **C) The immune system includes innate and adaptive components, with vaccines leveraging adaptive immunity's ability to develop targeted, lasting protection**. The main idea is the overarching point supported by most of the passage's details — not a minor detail or an extreme claim. 'The immune system includes innate and adaptive components, with vaccines leveraging adaptive immunity's ability to develop targeted, lasting protection' accurately captures what the passage argues or explains without over-generalizing or under-stating the scope.

QUESTION 17

Read the passage and answer the question. The passage describes how wolves reintroduced to Yellowstone National Park initiated a trophic cascade—their predation on elk allowed overgrazed vegetation to recover, which stabilized riverbanks, changed water flow patterns, and created habitat for numerous species. This example demonstrates how a single species can affect entire ecosystem structure. What is the author's primary purpose?

A) To entertain readers with wildlife stories

B) To illustrate ecological interconnectedness through a specific example

C) To argue for wolf reintroduction everywhere

D) To criticize previous park management

Correct Answer: B) To illustrate ecological interconnectedness through a specific example

Explanation: The correct answer is **B) To illustrate ecological interconnectedness through a specific example**. Identifying the author's primary purpose requires examining how ideas are organized and what the author emphasizes throughout. When a passage introduces a topic, presents evidence, and then analyzes implications, the purpose is most often to inform or analyze rather than to simply describe or entertain.

QUESTION 18

Read the passage and answer the question. Black holes are regions where gravity is so intense that nothing, not even light, can escape once it crosses the event horizon. This extreme gravity results from enormous mass compressed into an infinitesimally small space. While we cannot observe black holes directly, we detect them through their effects on nearby matter and light. What conclusion is best supported?

A) Black holes can be easily photographed with telescopes

B) Black holes' existence is inferred from observable effects rather than direct observation

C) All stars eventually become black holes

D) Gravity has no effect on light

Correct Answer: B) Black holes' existence is inferred from observable effects rather than direct observation

Explanation: The correct answer is **B) Black holes' existence is inferred from observable effects rather than direct observation**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Black holes' existence is inferred from observable effects rather than direct observation' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 19

Read the argument and answer the question. Supporters of a four-day work week argue it increases productivity, improves employee well-being, reduces burnout, and decreases commuting-related emissions. Critics counter that it may not suit all industries, could reduce customer service availability, and might simply compress the same stress into fewer days. What is the main claim of four-day work week supporters?

A) All businesses should immediately eliminate Fridays

B) Employees are lazy and need less work time

C) Reducing work days to four per week provides multiple benefits

D) Traditional work schedules are intentionally harmful

Correct Answer: C) Reducing work days to four per week provides multiple benefits

Explanation: The correct answer is **C) Reducing work days to four per week provides multiple benefits**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 20

Read the argument and answer the question. 'According to a longitudinal study published in the Journal of Educational Psychology, students who learned cursive writing demonstrated 12% better retention of written material and showed enhanced fine motor skills compared to students who learned only keyboarding.' What type of evidence is presented?

A) Personal opinion without support

B) Emotional appeal to tradition

C) Research data from a credible academic source

D) Hypothetical speculation about outcomes

Correct Answer: C) Research data from a credible academic source

Explanation: The correct answer is **C) Research data from a credible academic source**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to Research data from a credible academic source.

QUESTION 21

Read the argument and answer the question. 'If we allow any restrictions on free speech, soon the government will control all expression, then all thought, and eventually we will live in a totalitarian state where independent thinking is impossible.' What logical fallacy does this demonstrate?

A) False dilemma presenting only two options

B) Slippery slope assuming inevitable chain of consequences

C) Ad hominem attacking the person

D) Circular reasoning using conclusion as premise

Correct Answer: B) Slippery slope assuming inevitable chain of consequences

Explanation: The correct answer is **B) Slippery slope assuming inevitable chain of consequences**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to Slippery slope assuming inevitable chain of consequences.

QUESTION 22

Read the argument and answer the question. 'Dr. Patel has dedicated 25 years to marine biology research, published over 150 peer-reviewed articles, and advised multiple governments on ocean policy. Her assessment indicates that current fishing practices are unsustainable and will lead to ecosystem collapse without intervention.' How should this statement be characterized?

A) As biased opinion from an interested party

B) As credible expert testimony from a qualified authority

C) As unverifiable speculation

D) As emotional manipulation

Correct Answer: B) As credible expert testimony from a qualified authority

Explanation: The correct answer is **B) As credible expert testimony from a qualified authority**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 23

Read the argument and answer the question. 'The voting age should be lowered to 16. While some argue that 16-year-olds lack political knowledge and life experience, and others worry about parental influence on young voters, many 16-year-olds work and pay taxes yet have no representation—the very grievance that sparked American independence.' Which element represents a counterargument that the author acknowledges?

A) The voting age should be lowered to 16

B) Many 16-year-olds work and pay taxes

C) Some argue that 16-year-olds lack political knowledge and life experience

D) American independence was sparked by taxation without representation

Correct Answer: C) Some argue that 16-year-olds lack political knowledge and life experience

Explanation: The correct answer is **C) Some argue that 16-year-olds lack political knowledge and life experience**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Some argue that 16-year-olds lack political knowledge and life experience' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 24

Read the argument and answer the question. 'I asked five of my friends, and they all agreed that the new policy is unfair. Therefore, the entire student body opposes this policy and it should be changed immediately.' What weakness in reasoning does this argument demonstrate?

A) Using an unrepresentative sample to make broad claims

B) Providing excessive statistical evidence

C) Presenting too many opposing viewpoints

D) Using overly technical language

Correct Answer: A) Using an unrepresentative sample to make broad claims

Explanation: The correct answer is **A) Using an unrepresentative sample to make broad claims**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to Using an unrepresentative sample to make broad claims.

QUESTION 25

Read the argument and answer the question. The author cites economic analysis showing cost savings, environmental studies demonstrating sustainability benefits, and social research indicating improved quality of life. She then addresses concerns about feasibility by presenting successful case studies from comparable communities. What characterizes this argumentative approach?

A) One-sided presentation ignoring alternatives

B) Purely emotional appeal without evidence

C) Multi-faceted evidence-based approach with counterargument consideration

D) Weak argumentation relying on personal opinion

Correct Answer: C) Multi-faceted evidence-based approach with counterargument consideration

Explanation: The correct answer is **C) Multi-faceted evidence-based approach with counterargument consideration**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Multi-faceted evidence-based approach with counterargument consideration' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 26

Read the argument and answer the question. 'My opponent argues for increased education funding, but she is a career politician who just wants to buy votes with taxpayer money.' What logical fallacy does this statement demonstrate?

A) Slippery slope assuming cascading effects

B) False dilemma presenting only two choices

C) Ad hominem attacking the person rather than the argument

D) Circular reasoning using the conclusion as evidence

Correct Answer: C) Ad hominem attacking the person rather than the argument

Explanation: The correct answer is **C) Ad hominem attacking the person rather than the argument**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields Ad hominem attacking the person rather than the argument.

QUESTION 27

Read the paragraph and answer the question. (1) Biodegradable plastics offer a promising alternative to conventional petroleum-based plastics. (2) They break down naturally through microbial action, reducing long-term environmental impact. (3) Plastic was invented in the early 20th century. (4) However, biodegradable plastics require specific conditions for decomposition and may not break down in typical landfill environments. Which sentence should be removed?

A) Sentence 1

B) Sentence 2

C) Sentence 3

D) Sentence 4

Correct Answer: C) Sentence 3

Explanation: The correct answer is **C) Sentence 3**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option C. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 28

Read the paragraph and answer the question. The writer wants to add evidence supporting the claim that reading fiction develops empathy. Which sentence would be most effective? 'Fiction reading offers benefits beyond entertainment. [NEW SENTENCE] This increased understanding of others' perspectives translates to real-world social situations.'

A) Many people enjoy reading novels in their spare time.

B) Neuroscience research demonstrates that reading literary fiction activates brain regions associated with social cognition and understanding others' mental states.

C) There are many different genres of fiction available.

D) Fiction has been a popular art form for centuries.

Correct Answer: B) Neuroscience research demonstrates that reading literary fiction activates brain regions associated with social cognition and understanding others' mental states.

Explanation: The correct answer is **B) Neuroscience research demonstrates that reading literary fiction activates brain regions associated with social cognition and understanding others' mental states.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Neuroscience research demonstrates that reading literary fiction activates brain regions associated with social cognition and understanding others' mental states.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 29

Read the paragraph and answer the question. (1) Microgrids represent an innovative approach to energy resilience. (2) These localized power systems can operate independently from the main grid. (3) During natural disasters that disrupt central power, microgrids keep critical facilities functioning. (4) They integrate renewable sources and storage technology efficiently. Which sentence would best follow to provide additional support?

A) Many people use electricity in their daily lives.

B) After Hurricane Sandy, hospitals with microgrids maintained operations while the surrounding area remained dark for weeks, demonstrating the technology's life-saving potential.

C) Renewable energy includes solar and wind power.

D) Some people prefer traditional power systems.

Correct Answer: B) After Hurricane Sandy, hospitals with microgrids maintained operations while the surrounding area remained dark for weeks, demonstrating the technology's life-saving potential.

Explanation: The correct answer is **B) After Hurricane Sandy, hospitals with microgrids maintained operations while the surrounding area remained dark for weeks, demonstrating the technology's life-saving potential.**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'After Hurricane Sandy, hospitals with microgrids maintained operations while the surrounding area remained dark for weeks, demonstrating the technology's life-saving potential.' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 30

Read the paragraph and answer the question. (1) The writer argues that schools should incorporate financial literacy into core curriculum. (2) Most students graduate without understanding basic concepts like budgeting, credit, and investing. (3) This knowledge gap contributes to poor financial decisions and debt accumulation in early adulthood. (4) Learning to manage money is a fundamental life skill with long-term consequences. What addition would most strengthen this argument?

A) A description of the writer's personal financial situation

B) Research showing that students who receive financial education make better economic decisions and accumulate more wealth over their lifetimes

C) An explanation of how stock markets function

D) A story about someone who made a bad investment

Correct Answer: B) Research showing that students who receive financial education make better economic decisions and accumulate more wealth over their lifetimes

Explanation: The correct answer is **B) Research showing that students who receive financial education make better economic decisions and accumulate more wealth over their lifetimes**. In argumentative texts, effective evidence directly supports the central claim and is specific, credible, and relevant. 'Research showing that students who receive financial education make better economic decisions and accumulate more wealth over their lifetimes' best strengthens or addresses the argument because it directly connects to the claim without introducing irrelevant information.

QUESTION 31

Read the sentences and answer the question. (1) Exercise provides numerous physical health benefits. (2) [blank] regular physical activity significantly improves mental health, reducing symptoms of anxiety and depression. Which transition best fits the blank?

A) However,

B) For instance,

C) Additionally,

D) In conclusion,

Correct Answer: C) Additionally,

Explanation: The correct answer is **C) Additionally,**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option C best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 32

Read the paragraph and answer the question. (1) Vaccination programs have dramatically reduced infectious disease mortality. (2) Smallpox has been completely eradicated. (3) Polio cases have decreased by 99% since 1988. (4) Some people fear vaccine side effects. (5) Serious adverse reactions are extremely rare, occurring in fewer than one per million doses. Which revision best improves flow between sentences 3 and 4?

A) Polio cases have decreased by 99% since 1988, and some people fear vaccine side effects.

B) Polio cases have decreased by 99% since 1988. Despite these successes, some people fear vaccine side effects.

C) Polio cases have decreased by 99% since 1988. However, serious adverse reactions are extremely rare.

D) Polio cases have decreased. People have fears. Side effects exist.

Correct Answer: B) Polio cases have decreased by 99% since 1988. Despite these successes, some people fear vaccine side effects.

Explanation: The correct answer is **B) Polio cases have decreased by 99% since 1988. Despite these successes, some people fear vaccine side effects.**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 33

Read the sentences and answer the question. The initial hypothesis predicted a positive correlation between the variables. [blank] the data revealed a strong negative correlation, forcing revision of the theoretical model. Which transition best shows this relationship?

A) Similarly,

B) Furthermore,

C) Conversely,

D) Therefore,

Correct Answer: C) Conversely,

Explanation: The correct answer is **C) Conversely,**. Topic sentences introduce the main idea of a paragraph; concluding sentences summarize or reinforce it. Transitions guide readers between ideas using words that signal contrast, addition, or cause. Option C best fulfills this structural role while maintaining the paragraph's logical flow.

QUESTION 34

Read the paragraph and identify the sentence that disrupts logical flow. (1) First, gather all necessary ingredients and preheat the oven. (2) Next, combine the dry ingredients in a large bowl. (3) Baking traditions vary across cultures. (4) Then, add the wet ingredients and stir until just combined. (5) Finally, pour the batter into prepared pans and bake. Which sentence should be removed?

A) Sentence 2

B) Sentence 3

C) Sentence 4

D) Sentence 5

Correct Answer: B) Sentence 3

Explanation: The correct answer is **B) Sentence 3**. Close reading of the passage reveals that this detail, tone, or idea aligns most directly with option B. The other choices either contradict information stated in the passage or extend beyond what the text actually supports.

QUESTION 35

Read the paragraph and answer the question. (1) We began by reviewing existing literature on the topic. (2) [blank] we designed our experimental protocol based on identified gaps in current research. (3) Data collection occurred over twelve months. Which transition best fits the blank?

A) In contrast,

B) Subsequently,

C) Nevertheless,

D) For instance,

Correct Answer: B) Subsequently,

Explanation: The correct answer is **B) Subsequently,**. Effective transitions connect ideas by signaling relationships such as contrast, addition, causation, or sequence. 'Subsequently,' provides the clearest logical link between the ideas presented, maintaining coherence without redundancy.

QUESTION 36

Which revision improves sentence variety? Original: 'The proposal was submitted. It was reviewed by the committee. The committee found problems. The problems were addressed.'

A) The proposal was submitted, and it was reviewed, and the committee found problems, and the problems were addressed.

B) After the proposal was submitted and reviewed, the committee identified problems that were subsequently addressed.

C) The proposal, it was submitted, the committee, they reviewed it, problems were found, addressing happened.

D) Submission occurred. Review occurred. Problems were found. Addressing took place.

Correct Answer: B) After the proposal was submitted and reviewed, the committee identified problems that were subsequently addressed.

Explanation: The correct answer is **B) After the proposal was submitted and reviewed, the committee identified problems that were subsequently addressed.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 37

Read the sentence and answer the question. 'Due to the fact that there were a number of concerns that had been raised, the administration made the decision to postpone the implementation.' Which revision most effectively eliminates wordiness?

A) Because concerns were raised, the administration postponed implementation.

B) Due to the fact that concerns were raised, the administration decided to postpone.

C) There were concerns, and so the administration made the decision about postponement.

D) The administration, because of concerns that had been raised, decided on postponement of implementation.

Correct Answer: A) Because concerns were raised, the administration postponed implementation.

Explanation: The correct answer is **A) Because concerns were raised, the administration postponed implementation.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 38

Which sentence maintains appropriate formal tone for an academic context?

A) The research findings were super interesting and kind of blew everyone's minds.

B) The research revealed significant patterns that challenged prevailing assumptions.

C) Everyone was totally shocked by what the study showed.

D) The results were pretty crazy and didn't match what we expected at all.

Correct Answer: B) The research revealed significant patterns that challenged prevailing assumptions.

Explanation: The correct answer is **B) The research revealed significant patterns that challenged prevailing assumptions.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 39

Read the sentence and identify the clearest revision. Original: 'The utilization of collaborative methodologies in educational environments has been demonstrated to facilitate enhanced outcomes in terms of student achievement metrics across diverse demographic categories.'

A) The utilization of collaboration in schools facilitates enhanced outcomes in achievement.

B) Using collaborative methods in classrooms improves student achievement across different student groups.

C) Collaborative educational methodologies demonstrate outcome enhancement across demographics.

D) The use of collaboration has been shown to improve outcomes in educational settings.

Correct Answer: B) Using collaborative methods in classrooms improves student achievement across different student groups.

Explanation: The correct answer is **B) Using collaborative methods in classrooms improves student achievement across different student groups.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 40

Which revision best adapts specialized content for a general audience? Original: 'The therapeutic intervention employed cognitive-behavioral modalities targeting maladaptive thought patterns through systematic desensitization and cognitive restructuring protocols.'

A) The therapy used CBT targeting maladaptive cognitions via systematic protocols.

B) The treatment helped patients identify and change harmful thinking patterns through gradual exposure and new thought strategies.

C) Cognitive-behavioral therapeutic modalities were employed for cognitive restructuring.

D) The intervention utilized systematic approaches to maladaptive patterns.

Correct Answer: B) The treatment helped patients identify and change harmful thinking patterns through gradual exposure and new thought strategies.

Explanation: The correct answer is **B) The treatment helped patients identify and change harmful thinking patterns through gradual exposure and new thought strategies.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 41

Which sentence demonstrates correct subject-verb agreement?

A) The group of volunteers are meeting tomorrow.

B) Neither the director nor the actors was satisfied with the scene.

C) Each of the proposals have been carefully reviewed.

D) The effects of climate change are increasingly evident.

Correct Answer: D) The effects of climate change are increasingly evident.

Explanation: The correct answer is **D) The effects of climate change are increasingly evident.**. Subject-verb agreement requires that singular subjects take singular verbs and plural subjects take plural verbs, even when phrases or clauses come between them. Identifying the true subject of the sentence — ignoring intervening prepositional phrases — confirms that option D is grammatically correct.

QUESTION 42

Which sentence uses pronouns correctly?

A) The board announced their decision yesterday.

B) Everyone should bring their laptop to the workshop.

C) Each student must submit his or her application by March 1.

D) The committee presented their findings to the public.

Correct Answer: C) Each student must submit his or her application by March 1.

Explanation: The correct answer is **C) Each student must submit his or her application by March 1.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option C uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 43

Which sentence uses verb tenses correctly?

A) By the time we finish this course, we will have learned three programming languages.

B) She has been living in Boston before she moved to Seattle.

C) The team already left when we arrived at the meeting.

D) After I will complete the training, I can apply for certification.

Correct Answer: A) By the time we finish this course, we will have learned three programming languages.

Explanation: The correct answer is **A) By the time we finish this course, we will have learned three programming languages.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option A corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 44

Which sentence maintains parallel structure?

A) The initiative aims to increase funding, improving infrastructure, and to attract new businesses.

B) Her responsibilities include managing budgets, coordinating events, and to supervise staff.

C) The program emphasizes critical thinking, effective communication, and collaborative problem-solving.

D) The goals are reducing costs, to improve efficiency, and maximizing profit.

Correct Answer: C) The program emphasizes critical thinking, effective communication, and collaborative problem-solving.

Explanation: The correct answer is **C) The program emphasizes critical thinking, effective communication, and collaborative problem-solving.**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option C maintains consistent grammatical form across all listed or compared elements.

QUESTION 45

Which sentence correctly places modifiers?

A) Flying over the canyon, the tourists photographed the spectacular views.

B) The director discussed the strategy with the team that would transform the organization.

C) Having been carefully restored, the museum displayed the ancient artifacts.

D) Covered in dust, the archaeologist examined the pottery fragments.

Correct Answer: B) The director discussed the strategy with the team that would transform the organization.

Explanation: The correct answer is **B) The director discussed the strategy with the team that would transform the organization.**. This question tests revision and editing skills required on the TSIA2 Writing section. Option B corrects the grammatical, mechanical, or organizational issue in the original sentence while preserving the intended meaning.

QUESTION 46

Which sentence uses pronouns correctly?

A) The decision was made by the manager and I.

B) Between her and I, the contract seems problematic.

C) The committee selected three finalists: John, Sarah, and me.

D) Us participants deserve clearer instructions.

Correct Answer: C) The committee selected three finalists: John, Sarah, and me.

Explanation: The correct answer is **C) The committee selected three finalists: John, Sarah, and me.**. A pronoun must agree with its antecedent in number and gender, and its reference must be clear and unambiguous. Option C uses the correct pronoun form and ensures there is no confusion about what the pronoun refers to.

QUESTION 47

Which sentence uses punctuation correctly?

A) The report addressed three concerns: budget constraints, timeline delays, and staffing issues.

B) The report addressed three concerns; budget constraints, timeline delays, and staffing issues.

C) The report addressed: budget constraints, timeline delays, and staffing issues.

D) The report addressed three concerns, budget constraints; timeline delays; and staffing issues.

Correct Answer: A) The report addressed three concerns: budget constraints, timeline delays, and staffing issues.

Explanation: The correct answer is **A) The report addressed three concerns: budget constraints, timeline delays, and staffing issues.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option A as the only correctly punctuated version.

QUESTION 48

Which sentence correctly uses apostrophes?

A) The mens' locker room is being renovated.

B) Its critical to review the proposals accuracy.

C) The students' essays demonstrated their teachers' effective instruction.

D) The companys profits exceeded its competitors expectations.

Correct Answer: C) The students' essays demonstrated their teachers' effective instruction.

Explanation: The correct answer is **C) The students' essays demonstrated their teachers' effective instruction.**. Punctuation rules on the TSIA2 require understanding when to use commas (introductory clauses, series, coordinate adjectives), semicolons (joining independent clauses without a conjunction), and apostrophes (possession vs. contractions). Applying these rules to the sentence selects option C as the only correctly punctuated version.

MATH DIAGNOSTIC

TSIA2 Math Diagnostic Exam 1 — 2026

48 Questions — Answer Key with Explanations

QUESTION 1

A beverage company produces a juice concentrate that must be diluted in a 1:4 ratio (concentrate to water). If a recipe calls for 3.5 cups of the final juice mixture, how many cups of concentrate are needed?

A) 0.7

B) 1.4

C) 2.8

D) 3.5

Correct Answer: A) 0.7

Explanation: The correct answer is **A) 0.7**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives 0.7.

QUESTION 2

What is the absolute value of the difference between -12 and 5?

A) 7

B) 17

C) -17

D) -7

Correct Answer: B) 17

Explanation: The correct answer is **B) 17**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 3

A store offers a 35% discount on a television originally priced at $480. After the discount, what is the final price?

A) 168

B) 312

C) 315

D) 480

Correct Answer: B) 312

Explanation: The correct answer is **B) 312**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 4

Simplify: 36 ÷ 9 × 2 - 3 + 5

A) 3

B) 5

C) 10

D) 13

Correct Answer: D) 13

Explanation: The correct answer is **D) 13**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 13.

QUESTION 5

Express 0.68 as a fraction in simplest form.

A) 17/25

B) 68/100

C) 34/50

D) 7/10

Correct Answer: A) 17/25

Explanation: The correct answer is **A) 17/25**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 6

A recipe requires 2.5 cups of flour for 20 cookies. How many cups of flour are needed for 32 cookies?

A) 1.56

B) 4

C) 4.5

D) 5

Correct Answer: B) 4

Explanation: The correct answer is **B) 4**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 7

Which number is NOT a multiple of 6?

A) 42

B) 54

C) 68

D) 72

Correct Answer: C) 68

Explanation: The correct answer is **C) 68**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 8

A number increased by 23% equals 123. What is the original number?

A) 100

B) 110

C) 115

D) 120

Correct Answer: A) 100

Explanation: The correct answer is **A) 100**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 9

Add: 3/8 + 5/12

A) 8/20

B) 19/24

C) 8/12

D) 1/4

Correct Answer: B) 19/24

Explanation: The correct answer is **B) 19/24**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 10

Round 47.568 to the nearest tenth.

A) 47.5

B) 47.57

C) 48

D) 47.6

Correct Answer: D) 47.6

Explanation: The correct answer is **D) 47.6**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 11

If a car travels 324 miles in 6 hours, what is the average speed in miles per hour?

A) 48

B) 54

C) 58

D) 60

Correct Answer: B) 54

Explanation: The correct answer is **B) 54**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 54.

QUESTION 12

Estimate: 18.7 × 4.9

A) 70

B) 85

C) 95

D) 110

Correct Answer: B) 85

Explanation: The correct answer is **B) 85**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 13

Solve: 3x + 7 = 22

A) x = 5

B) x = 9.67

C) x = 10

D) x = 29

Correct Answer: A) x = 5

Explanation: The correct answer is **A) x = 5**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = 5.

QUESTION 14

Solve for y: 2(y - 3) = 4y + 8

A) y = -7

B) y = -5

C) y = 5

D) y = 7

Correct Answer: A) y = -7

Explanation: The correct answer is **A) y = -7**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to y = -7.

QUESTION 15

Which equation represents the line with slope 2 passing through (1, 3)?

A) y = 2x + 1

B) y = 2x + 3

C) y = x + 2

D) y = 2x - 1

Correct Answer: A) y = 2x + 1

Explanation: The correct answer is **A) y = 2x + 1**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option A.

QUESTION 16

Simplify: (x^3)(x^2) ÷ x^4

A) x

B) 1/x

C) x^5

D) x^{-1}

Correct Answer: A) x

Explanation: The correct answer is **A) x**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to x.

QUESTION 17

Express 0.00042 in scientific notation.

A) 4.2 × 10^{-3}

B) 4.2 × 10^{-4}

C) 42 × 10^{-5}

D) 0.42 × 10^{-3}

Correct Answer: B) 4.2 × 10^{-4}

Explanation: The correct answer is **B) 4.2 × 10^{-4}**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 18

Factor: x^2 + 7x + 12

A) (x + 3)(x + 4)

B) (x + 2)(x + 6)

C) (x + 1)(x + 12)

D) (x + 5)(x + 2)

Correct Answer: A) (x + 3)(x + 4)

Explanation: The correct answer is **A) (x + 3)(x + 4)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields (x + 3)(x + 4).

QUESTION 19

If f(x) = 3x^2 - 5, what is f(2)?

A) 1

B) 7

C) 12

D) 19

Correct Answer: C) 12

Explanation: The correct answer is **C) 12**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 12.

QUESTION 20

Solve: |x - 4| = 6

A) x = 10 only

B) x = -2 only

C) x = 10 or x = -2

D) x = 2 or x = 6

Correct Answer: C) x = 10 or x = -2

Explanation: The correct answer is **C) x = 10 or x = -2**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = 10 or x = -2.

QUESTION 21

Solve the system: x + y = 8 and 2x - y = 7

A) (3, 5)

B) (5, 3)

C) (1, 7)

D) (4, 4)

Correct Answer: B) (5, 3)

Explanation: The correct answer is **B) (5, 3)**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to (5, 3).

QUESTION 22

Solve: 2x^2 - 5x - 3 = 0

A) x = 3 or x = -0.5

B) x = -1 or x = 1.5

C) x = 1 or x = 3

D) x = 2 or x = -1

Correct Answer: A) x = 3 or x = -0.5

Explanation: The correct answer is **A) x = 3 or x = -0.5**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = 3 or x = -0.5.

QUESTION 23

If g(x) = 2x - 5, what is the domain restriction for g?

A) $x > 0$

B) $x \neq 5$

C) all real numbers

D) $x \geq 2$

Correct Answer: C) all real numbers

Explanation: The correct answer is **C) all real numbers**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives all real numbers.

QUESTION 24

Solve: 5 - 3x > 14

A) x > -3

B) x > 6.33

C) x < -3

D) x > 3

Correct Answer: C) x < -3

Explanation: The correct answer is **C) x < -3**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x < -3.

QUESTION 25

A rectangular garden measures 24 feet by 15 feet. What is the perimeter?

A) 39

B) 78

C) 360

D) 180

Correct Answer: B) 78

Explanation: The correct answer is **B) 78**. This geometry problem requires identifying the correct formula or theorem and substituting the given measurements. Applying the relevant geometric principle — area, angle relationships, or similarity — step-by-step leads to 78.

QUESTION 26

Find the area of a triangle with base 13 cm and height 8 cm.

A) 52

B) 104

C) 21

D) 104

Correct Answer: A) 52

Explanation: The correct answer is **A) 52**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 52.

QUESTION 27

A right triangle has legs of 5 inches and 12 inches. What is the length of the hypotenuse?

A) 13

B) 17

C) 7

D) 8.5

Correct Answer: A) 13

Explanation: The correct answer is **A) 13**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 13.

QUESTION 28

What is the circumference of a circle with radius 7 meters? (Use $\pi \approx 3.14$)

A) 21.98

B) 43.96

C) 153.86

D) 49

Correct Answer: B) 43.96

Explanation: The correct answer is **B) 43.96**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 43.96.

QUESTION 29

Find the area of a circle with diameter 10 inches. (Use $\pi \approx 3.14$)

A) 31.4

B) 78.5

C) 314

D) 62.8

Correct Answer: B) 78.5

Explanation: The correct answer is **B) 78.5**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 78.5.

QUESTION 30

Two angles are supplementary. If one angle measures 67°, what is the measure of the other?

A) 23°

B) 90°

C) 113°

D) 157°

Correct Answer: C) 113°

Explanation: The correct answer is **C) 113°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 113°.

QUESTION 31

The volume of a rectangular prism is 480 cubic cm. If the length is 12 cm and width is 10 cm, what is the height?

A) 4

B) 5

C) 6

D) 8

Correct Answer: A) 4

Explanation: The correct answer is **A) 4**. Volume formulas: rectangular prism = $l \times w \times h$; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 4.

QUESTION 32

Find the distance between points (3, 4) and (9, 12) on a coordinate plane.

A) 10

B) 8

C) 12

D) 6

Correct Answer: A) 10

Explanation: The correct answer is **A) 10**. The midpoint formula is $M = ((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is $d = \text{sqrt}((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces 10.

QUESTION 33

If a figure is translated 5 units right and 3 units down, which point corresponds to the original point (1, 2)?

A) (6, 5)

B) (6, -1)

C) (4, 5)

D) (-4, -1)

Correct Answer: B) (6, -1)

Explanation: The correct answer is **B) (6, -1)**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 34

A quadrilateral has angles measuring 85°, 95°, and 110°. What is the fourth angle?

A) 70°

B) 80°

C) 90°

D) 100°

Correct Answer: A) 70°

Explanation: The correct answer is **A) 70°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 70°.

QUESTION 35

Find the area of a trapezoid with parallel bases of 8 m and 12 m, and height 5 m.

A) 40

B) 50

C) 60

D) 80

Correct Answer: B) 50

Explanation: The correct answer is **B) 50**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option B maintains consistent grammatical form across all listed or compared elements.

QUESTION 36

When a figure is reflected over the y-axis, what happens to the coordinates (x, y)?

A) (-x, y)

B) (x, -y)

C) (y, x)

D) (-x, -y)

Correct Answer: A) (-x, y)

Explanation: The correct answer is **A) (-x, y)**. The midpoint formula is M = $((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is d = $\text{sqrt}((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces (-x, y).

QUESTION 37

A dataset contains: 5, 8, 12, 8, 15, 8. What is the mode?

A) 8

B) 9.33

C) 10

D) 15

Correct Answer: A) 8

Explanation: The correct answer is **A) 8**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives 8.

QUESTION 38

Five test scores are 78, 82, 90, 76, and 89. What is the median?

A) 82

B) 83

C) 78

D) 76

Correct Answer: A) 82

Explanation: The correct answer is **A) 82**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of 82.

QUESTION 39

Find the mean of: 24, 18, 30, 22

A) 23

B) 23.5

C) 24

D) 25

Correct Answer: B) 23.5

Explanation: The correct answer is **B) 23.5**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 23.5.

QUESTION 40

A spinner has 8 equal sections: 3 red, 2 blue, 2 green, 1 yellow. What is the probability of spinning blue?

A) 1/8

B) 1/4

C) 1/3

D) 3/8

Correct Answer: B) 1/4

Explanation: The correct answer is **B) 1/4**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1/4.

QUESTION 41

A bag contains 5 red balls, 3 blue balls, and 2 green balls. If you draw one ball without replacement, then another, what is the probability of drawing two red balls?

A) 1/4

B) 5/18

C) 5/20

D) 25/100

Correct Answer: B) 5/18

Explanation: The correct answer is **B) 5/18**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 5/18.

QUESTION 42

In a survey, 25 out of 80 students prefer online learning. What percent is this?

A) 25%

B) 31.25%

C) 50%

D) 55%

Correct Answer: B) 31.25%

Explanation: The correct answer is **B) 31.25%**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields 31.25%.

QUESTION 43

A dataset has a range of 18 and a minimum value of 5. What is the maximum value?

A) 13

B) 18

C) 23

D) 36

Correct Answer: C) 23

Explanation: The correct answer is **C) 23**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 23.

QUESTION 44

A die is rolled twice. What is the probability of rolling an even number on both rolls?

A) 1/6

B) 1/4

C) 1/3

D) 1/2

Correct Answer: C) 1/3

Explanation: The correct answer is **C) 1/3**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1/3.

QUESTION 45

Which value is an outlier in the dataset: 12, 14, 13, 15, 48, 12, 14?

A) 12

B) 13

C) 14

D) 48

Correct Answer: D) 48

Explanation: The correct answer is **D) 48**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 48.

QUESTION 46

Two events are independent. Event A has probability 0.4 and Event B has probability 0.6. What is the probability of both occurring?

A) 0.24

B) 0.4

C) 0.6

D) 1

Correct Answer: A) 0.24

Explanation: The correct answer is **A) 0.24**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 0.24.

QUESTION 47

A box plot shows Q1 = 20, median = 28, Q3 = 35. Which statement is true?

A) 50% of data is between 20 and 35

B) 25% of data is between 20 and 28

C) The data is skewed left

D) All data is below 28

Correct Answer: A) 50% of data is between 20 and 35

Explanation: The correct answer is **A) 50% of data is between 20 and 35**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of 50% of data is between 20 and 35.

QUESTION 48

What is the relationship between the variables in a scatter plot with data points forming no clear pattern?

A) Strong positive correlation

B) No correlation

C) Strong negative correlation

D) Perfect correlation

Correct Answer: B) No correlation

Explanation: The correct answer is **B) No correlation**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to No correlation.

MATH DIAGNOSTIC

TSIA2 Math Diagnostic Exam 2 — 2026

48 Questions — Answer Key with Explanations

QUESTION 1

A manufacturing company uses a 2:3 mixture of alloy A to alloy B. If they need 40 kilograms of alloy B, how many kilograms of alloy A are required?

A) 26.67

B) 60

C) 53.33

D) 120

Correct Answer: A) 26.67

Explanation: The correct answer is **A) 26.67**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 2

What is the absolute value of -8 - (-3)?

A) -5

B) 5

C) -11

D) 11

Correct Answer: B) 5

Explanation: The correct answer is **B) 5**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 3

A store reduces prices by 40% on all clearance items. A coat originally priced at $175 is on clearance. What is the new price?

A) 70

B) 105

C) 115

D) 140

Correct Answer: B) 105

Explanation: The correct answer is **B) 105**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 4

Simplify: 45 - 18 ÷ 3 + 6 × 2

A) 15

B) 33

C) 43

D) 51

Correct Answer: C) 43

Explanation: The correct answer is **C) 43**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 43.

QUESTION 5

Convert 5/16 to a decimal.

A) 0.3125

B) 0.5

C) 0.625

D) 0.8125

Correct Answer: A) 0.3125

Explanation: The correct answer is **A) 0.3125**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 6

A painter can cover 240 square feet in 5 hours. At this rate, how many square feet can the painter cover in 8 hours?

A) 300

B) 384

C) 460

D) 1920

Correct Answer: B) 384

Explanation: The correct answer is **B) 384**. This geometry problem requires identifying the correct formula or theorem and substituting the given measurements. Applying the relevant geometric principle — area, angle relationships, or similarity — step-by-step leads to 384.

QUESTION 7

Which of the following is a factor of 144?

A) 8

B) 11

C) 18

D) 25

Correct Answer: C) 18

Explanation: The correct answer is **C) 18**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 18.

QUESTION 8

A salary decreased by 12% to become $44,000. What was the original salary?

A) 39,000

B) 49,280

C) 50,000

D) 52,000

Correct Answer: C) 50,000

Explanation: The correct answer is **C) 50,000**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 9

Subtract: 7/10 - 1/4

A) 6/6

B) 3/5

C) 9/20

D) 6/4

Correct Answer: C) 9/20

Explanation: The correct answer is **C) 9/20**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 10

Round 82.456 to the nearest hundredth.

A) 82

B) 82.4

C) 82.45

D) 82.46

Correct Answer: D) 82.46

Explanation: The correct answer is **D) 82.46**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 11

A bicyclist travels 156 miles in 12 hours. What is the average speed?

A) 11 mph

B) 13 mph

C) 15 mph

D) 18 mph

Correct Answer: B) 13 mph

Explanation: The correct answer is **B) 13 mph**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 13 mph.

QUESTION 12

Estimate the product: 6.8 × 7.2

A) 42

B) 48

C) 56

D) 63

Correct Answer: B) 48

Explanation: The correct answer is **B) 48**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 13

Solve: 4x - 9 = 19

A) x = 2.5

B) x = 7

C) x = 10

D) x = 28

Correct Answer: B) x = 7

Explanation: The correct answer is **B) x = 7**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = 7.

QUESTION 14

Solve: 3(2 - x) = 5x + 2

A) x = 0.5

B) x = 1

C) x = 2

D) x = 3

Correct Answer: A) x = 0.5

Explanation: The correct answer is **A) x = 0.5**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = 0.5.

QUESTION 15

What is the slope of the line 2y - 6x = 8?

A) -3

B) 3

C) 2

D) 4

Correct Answer: B) 3

Explanation: The correct answer is **B) 3**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option B.

QUESTION 16

Simplify: (a^4)^2 × a^{-3}

A) a^5

B) a^8

C) a^{-3}

D) a^{11}

Correct Answer: A) a^5

Explanation: The correct answer is **A) a^5**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to a^5.

QUESTION 17

Express 7,500,000 in scientific notation.

A) 7.5 × 10^6

B) 75 × 10^5

C) 7.5 × 10^{-6}

D) 750 × 10^4

Correct Answer: A) 7.5 × 10^6

Explanation: The correct answer is **A) 7.5 × 10^6**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 18

Factor: 2x^2 + 9x + 7

A) (2x + 7)(x + 1)

B) (2x + 1)(x + 7)

C) (x + 7)(x + 1)

D) (2x + 9)(x)

Correct Answer: A) (2x + 7)(x + 1)

Explanation: The correct answer is **A) (2x + 7)(x + 1)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields (2x + 7)(x + 1).

QUESTION 19

If h(x) = 4x - 7, what is h(-3)?

A) -19

B) -5

C) 5

D) 19

Correct Answer: A) -19

Explanation: The correct answer is **A) -19**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 20

Solve: |2x + 1| = 9

A) x = 4

B) x = -5

C) x = 4 or x = -5

D) x = 8 or x = -10

Correct Answer: C) x = 4 or x = -5

Explanation: The correct answer is **C) x = 4 or x = -5**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = 4 or x = -5.

QUESTION 21

Solve the system: 2x + y = 11 and x - y = 1

A) (4, 3)

B) (3, 5)

C) (2, 7)

D) (6, 1)

Correct Answer: A) (4, 3)

Explanation: The correct answer is **A) (4, 3)**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to (4, 3).

QUESTION 22

Using the quadratic formula, solve: x^2 + 4x - 12 = 0

A) x = 2 or x = -6

B) x = -2 or x = 6

C) x = 3 or x = -4

D) x = 1 or x = -12

Correct Answer: A) x = 2 or x = -6

Explanation: The correct answer is **A) x = 2 or x = -6**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields x = 2 or x = -6.

QUESTION 23

What is the range of f(x) = |x - 3| + 2?

A) all real numbers

B) y ≥ 2

C) y ≥ 3

D) y > 0

Correct Answer: B) y ≥ 2

Explanation: The correct answer is **B) y ≥ 2**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives y ≥ 2.

QUESTION 24

Solve: 7 + 2x ≤ -5

A) x ≤ -6

B) x ≤ 6

C) x ≥ -6

D) x > 1

Correct Answer: A) x ≤ -6

Explanation: The correct answer is **A) x ≤ -6**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x ≤ -6.

QUESTION 25

A rectangular deck measures 18 meters by 12 meters. What is the perimeter?

A) 30

B) 60

C) 216

D) 108

Correct Answer: B) 60

Explanation: The correct answer is **B) 60**. This geometry problem requires identifying the correct formula or theorem and substituting the given measurements. Applying the relevant geometric principle — area, angle relationships, or similarity — step-by-step leads to 60.

QUESTION 26

Calculate the area of a triangle with base 16 feet and height 9 feet.

A) 72

B) 144

C) 25

D) 50

Correct Answer: A) 72

Explanation: The correct answer is **A) 72**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 72.

QUESTION 27

A right triangle has legs of 7 cm and 24 cm. What is the hypotenuse?

A) 17

B) 25

C) 31

D) 17.5

Correct Answer: B) 25

Explanation: The correct answer is **B) 25**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 25.

QUESTION 28

Find the circumference of a circle with diameter 14 inches. (Use $\pi \approx 3.14$)

A) 21.98

B) 43.96

C) 615.44

D) 153.86

Correct Answer: B) 43.96

Explanation: The correct answer is **B) 43.96**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 43.96.

QUESTION 29

What is the area of a circle with radius 6 cm? (Use $\pi \approx 3.14$)

A) 37.68

B) 113.04

C) 56.52

D) 28.26

Correct Answer: B) 113.04

Explanation: The correct answer is **B) 113.04**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 113.04.

QUESTION 30

Two angles are complementary. One angle measures 38°. What is the other angle?

A) 52°

B) 62°

C) 90°

D) 142°

Correct Answer: A) 52°

Explanation: The correct answer is **A) 52°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 52°.

QUESTION 31

A rectangular box has length 8 inches, width 6 inches, and height 5 inches. What is the volume?

A) 19

B) 120

C) 240

D) 96

Correct Answer: B) 120

Explanation: The correct answer is **B) 120**. Volume formulas: rectangular prism = $l \times w \times h$; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 120.

QUESTION 32

Find the midpoint between points (2, 5) and (8, 13).

A) (5, 9)

B) (6, 9)

C) (5, 8)

D) (6, 8)

Correct Answer: A) (5, 9)

Explanation: The correct answer is **A) (5, 9)**. The midpoint formula is $M = ((x_1+x_2)/2, (y_1+y_2)/2)$; the distance formula is $d = \text{sqrt}((x_2-x_1)^2 + (y_2-y_1)^2)$. Substituting the given coordinates into the appropriate formula produces (5, 9).

QUESTION 33

If a shape is rotated 90° clockwise about the origin, the point (4, 3) maps to what point?

A) (3, 4)

B) (3, -4)

C) (-4, 3)

D) (4, -3)

Correct Answer: B) (3, -4)

Explanation: The correct answer is **B) (3, -4)**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 34

An irregular quadrilateral has angles of 78°, 102°, and 88°. What is the fourth angle?

A) 92°

B) 102°

C) 112°

D) 122°

Correct Answer: A) 92°

Explanation: The correct answer is **A) 92°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 92°.

QUESTION 35

Find the area of a trapezoid with parallel bases of 6 inches and 10 inches and height 7 inches.

A) 42

B) 56

C) 70

D) 112

Correct Answer: B) 56

Explanation: The correct answer is **B) 56**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option B maintains consistent grammatical form across all listed or compared elements.

QUESTION 36

A dilation with scale factor 3 is applied to a square with side length 4 cm. What is the perimeter of the dilated square?

A) 12

B) 16

C) 48

D) 64

Correct Answer: C) 48

Explanation: The correct answer is **C) 48**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 48.

QUESTION 37

Find the mode of: 7, 4, 9, 7, 12, 7, 5

A) 4

B) 7

C) 9

D) 12

Correct Answer: B) 7

Explanation: The correct answer is **B) 7**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives 7.

QUESTION 38

Six test scores are 85, 92, 88, 95, 81, and 89. What is the median?

A) 88

B) 88.5

C) 89

D) 87

Correct Answer: B) 88.5

Explanation: The correct answer is **B) 88.5**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of 88.5.

QUESTION 39

Calculate the mean of: 42, 38, 45, 35

A) 40

B) 40.5

C) 41

D) 42

Correct Answer: A) 40

Explanation: The correct answer is **A) 40**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 40.

QUESTION 40

A number cube has 6 faces. What is the probability of rolling a number greater than 4?

A) 1/6

B) 1/3

C) 1/2

D) 2/3

Correct Answer: B) 1/3

Explanation: The correct answer is **B) 1/3**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1/3.

QUESTION 41

A deck of cards has 52 cards. If you draw one card and do not replace it, then draw another, what is the probability both are hearts?

A) 1/17

B) 1/16

C) 13/52

D) 13/17

Correct Answer: A) 1/17

Explanation: The correct answer is **A) 1/17**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1/17.

QUESTION 42

In a survey of 120 students, 84 have a smartphone. What percent have a smartphone?

A) 60%

B) 65%

C) 70%

D) 75%

Correct Answer: C) 70%

Explanation: The correct answer is **C) 70%**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields 70%.

QUESTION 43

A dataset has values ranging from 3 to 27. What is the range?

A) 3

B) 24

C) 27

D) 30

Correct Answer: B) 24

Explanation: The correct answer is **B) 24**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 24.

QUESTION 44

A coin is flipped three times. What is the probability of getting three heads?

A) 1/2

B) 1/4

C) 1/6

D) 1/8

Correct Answer: D) 1/8

Explanation: The correct answer is **D) 1/8**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1/8.

QUESTION 45

Which value appears to be an outlier: 34, 36, 35, 37, 88, 35, 33?

A) 33

B) 35

C) 37

D) 88

Correct Answer: D) 88

Explanation: The correct answer is **D) 88**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option D is the most complete and accurate response based on the question's context.

QUESTION 46

Events X and Y are independent. P(X) = 0.5 and P(Y) = 0.7. Find P(X and Y).

A) 0.35

B) 0.5

C) 0.7

D) 1.2

Correct Answer: A) 0.35

Explanation: The correct answer is **A) 0.35**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 47

A histogram shows most data values clustered on the right side with a tail extending left. How would you describe this distribution?

A) Symmetric

B) Skewed left

C) Skewed right

D) Uniform

Correct Answer: B) Skewed left

Explanation: The correct answer is **B) Skewed left**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to Skewed left.

QUESTION 48

A correlation coefficient of r = -0.92 indicates what type of relationship?

A) No correlation

B) Weak negative correlation

C) Strong negative correlation

D) Strong positive correlation

Correct Answer: C) Strong negative correlation

Explanation: The correct answer is **C) Strong negative correlation**. Scatter plots show the relationship between two variables. A positive correlation means both increase together; a negative correlation means one increases as the other decreases; no correlation means no discernible pattern. Examining the trend in this scatter plot indicates Strong negative correlation.

MATH DIAGNOSTIC

TSIA2 Math Diagnostic Exam 3 — 2026

48 Questions — Answer Key with Explanations

QUESTION 1

What is the value of 7 + 3 × 2 - 4?

A) 9

B) 13

C) 5

D) 6

Correct Answer: B) 13

Explanation: The correct answer is **B) 13**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 2

Which of the following is a multiple of both 4 and 6?

A) 12

B) 18

C) 24

D) 36

Correct Answer: C) 24

Explanation: The correct answer is **C) 24**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 3

Convert 3/8 to a decimal.

A) 0.375

B) 0.38

C) 3.8

D) 0.25

Correct Answer: A) 0.375

Explanation: The correct answer is **A) 0.375**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 4

If a price increases from $40 to $52, what is the percent increase?

A) 20%

B) 25%

C) 30%

D) 35%

Correct Answer: A) 20%

Explanation: The correct answer is **A) 20%**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields 20%.

QUESTION 5

A recipe calls for 2 cups of flour for every 3 eggs. How many cups of flour are needed for 9 eggs?

A) 4

B) 6

C) 5

D) 7

Correct Answer: B) 6

Explanation: The correct answer is **B) 6**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 6

Round 47.386 to the nearest tenth.

A) 47.4

B) 47.3

C) 47.39

D) 47

Correct Answer: A) 47.4

Explanation: The correct answer is **A) 47.4**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 7

What is the absolute value of -15?

A) 15

B) -15

C) 0

D) 30

Correct Answer: A) 15

Explanation: The correct answer is **A) 15**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 8

Simplify: 2/5 + 1/10

A) 3/15

B) 1/2

C) 3/10

D) 1/5

Correct Answer: B) 1/2

Explanation: The correct answer is **B) 1/2**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 1/2.

QUESTION 9

If 18 is 30% of a number, what is the number?

A) 54

B) 60

C) 50

D) 45

Correct Answer: B) 60

Explanation: The correct answer is **B) 60**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 10

A car travels 240 miles in 4 hours. What is the unit rate in miles per hour?

A) 60 mph

B) 50 mph

C) 70 mph

D) 55 mph

Correct Answer: A) 60 mph

Explanation: The correct answer is **A) 60 mph**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives 60 mph.

QUESTION 11

Estimate the product: 4.8 × 5.1

A) 20

B) 24

C) 25

D) 30

Correct Answer: C) 25

Explanation: The correct answer is **C) 25**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 12

Find the GCF of 24 and 36.

A) 6

B) 12

C) 8

D) 18

Correct Answer: B) 12

Explanation: The correct answer is **B) 12**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 13

Solve: 3x + 7 = 22

A) x = 5

B) x = 10

C) x = 3

D) x = 6

Correct Answer: A) x = 5

Explanation: The correct answer is **A) x = 5**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = 5.

QUESTION 14

Solve: 2x - 5 < 9

A) x < 7

B) x > 7

C) x < 2

D) x > 2

Correct Answer: A) x < 7

Explanation: The correct answer is **A) x < 7**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x < 7.

QUESTION 15

Simplify: 2^3 × 2^4

A) 2^12

B) 2^7

C) 4^7

D) 2^1

Correct Answer: B) 2^7

Explanation: The correct answer is **B) 2^7**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 2^7.

QUESTION 16

Write in scientific notation: 0.00045

A) 4.5 × 10^-4

B) 4.5 × 10^-3

C) 4.5 × 10^4

D) 4.5 × 10^3

Correct Answer: A) 4.5 × 10^-4

Explanation: The correct answer is **A) 4.5 × 10^-4**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 17

Solve the system: x + y = 10 and x - y = 2

A) x=6, y=4

B) x=4, y=6

C) x=5, y=5

D) x=7, y=3

Correct Answer: A) x=6, y=4

Explanation: The correct answer is **A) x=6, y=4**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x=6, y=4.

QUESTION 18

Factor: x^2 + 7x + 12

A) (x+3)(x+4)

B) (x+2)(x+6)

C) (x+1)(x+12)

D) (x+5)(x+2)

Correct Answer: A) (x+3)(x+4)

Explanation: The correct answer is **A) (x+3)(x+4)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields (x+3)(x+4).

QUESTION 19

Solve using the quadratic formula: x^2 - 3x - 10 = 0

A) x=5 or x=-2

B) x=-5 or x=2

C) x=2 or x=-1

D) x=10 or x=-1

Correct Answer: A) x=5 or x=-2

Explanation: The correct answer is **A) x=5 or x=-2**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields x=5 or x=-2.

QUESTION 20

If f(x) = 2x - 3, find f(5).

A) 7

B) 10

C) 3

D) 13

Correct Answer: A) 7

Explanation: The correct answer is **A) 7**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 7.

QUESTION 21

Solve for y: 3x + 2y = 12

A) y = -3/2 x + 6

B) y = 3/2 x + 6

C) y = -3/2 x - 6

D) y = 3/2 x - 6

Correct Answer: A) y = -3/2 x + 6

Explanation: The correct answer is **A) y = -3/2 x + 6**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to y = -3/2 x + 6.

QUESTION 22

Find the slope of the line through (2, 3) and (5, 9).

A) 2

B) 1

C) -2

D) 3

Correct Answer: A) 2

Explanation: The correct answer is **A) 2**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option A.

QUESTION 23

What is the discriminant of x^2 - 4x + 4 = 0?

A) 0

B) 4

C) -4

D) 16

Correct Answer: A) 0

Explanation: The correct answer is **A) 0**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 24

Simplify: (3x^2y)^3

A) 27x^6y^3

B) 9x^6y^3

C) 27x^5y^3

D) 9x^5y^3

Correct Answer: A) 27x^6y^3

Explanation: The correct answer is **A) 27x^6y^3**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 27x^6y^3.

QUESTION 25

If two angles are supplementary and one is 65°, what is the other angle?

A) 115°

B) 125°

C) 95°

D) 75°

Correct Answer: A) 115°

Explanation: The correct answer is **A) 115°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 115°.

QUESTION 26

Find the area of a triangle with base 10 cm and height 8 cm.

A) 40 cm²

B) 80 cm²

C) 50 cm²

D) 60 cm²

Correct Answer: A) 40 cm²

Explanation: The correct answer is **A) 40 cm²**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 40 cm².

QUESTION 27

A circle has a radius of 5 cm. What is its circumference?

A) 10π cm

B) 25π cm

C) 5π cm

D) 20π cm

Correct Answer: A) 10π cm

Explanation: The correct answer is **A) 10π cm**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 10π cm.

QUESTION 28

Find the volume of a rectangular prism with length 4 m, width 3 m, and height 2 m.

A) 24 m^3

B) 18 m^3

C) 36 m^3

D) 12 m^3

Correct Answer: A) 24 m^3

Explanation: The correct answer is **A) 24 m^3**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 24 m^3.

QUESTION 29

Using the Pythagorean theorem, find the hypotenuse of a right triangle with legs 5 and 12.

A) 13

B) 17

C) 15

D) 12

Correct Answer: A) 13

Explanation: The correct answer is **A) 13**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 13.

QUESTION 30

Find the distance between points (1, 2) and (4, 6).

A) 5

B) 4

C) 6

D) 7

Correct Answer: A) 5

Explanation: The correct answer is **A) 5**. The midpoint formula is M = ((x₁+x₂)/2, (y₁+y₂)/2); the distance formula is d = sqrt((x₂-x₁)² + (y₂-y₁)²). Substituting the given coordinates into the appropriate formula produces 5.

QUESTION 31

What is the midpoint of the segment from (-2, 3) to (4, 7)?

A) (1, 5)

B) (2, 5)

C) (1, 4)

D) (2, 4)

Correct Answer: A) (1, 5)

Explanation: The correct answer is **A) (1, 5)**. The midpoint formula is M = ((x₁+x₂)/2, (y₁+y₂)/2); the distance formula is d = sqrt((x₂-x₁)² + (y₂-y₁)²). Substituting the given coordinates into the appropriate formula produces (1, 5).

QUESTION 32

A translation moves a point 3 units right and 4 units up. If the original point is (2, 1), where is the new point?

A) (5, 5)

B) (5, 4)

C) (6, 5)

D) (4, 5)

Correct Answer: A) (5, 5)

Explanation: The correct answer is **A) (5, 5)**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 33

Find the perimeter of a rectangle with length 12 cm and width 5 cm.

A) 34 cm

B) 17 cm

C) 60 cm

D) 24 cm

Correct Answer: A) 34 cm

Explanation: The correct answer is **A) 34 cm**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 34 cm.

QUESTION 34

If a figure is dilated by a scale factor of 2, how does the area change?

A) Multiplied by 4

B) Multiplied by 2

C) Stays the same

D) Divided by 2

Correct Answer: A) Multiplied by 4

Explanation: The correct answer is **A) Multiplied by 4**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields Multiplied by 4.

QUESTION 35

A square has an area of 64 cm². What is its perimeter?

A) 32 cm

B) 16 cm

C) 64 cm

D) 8 cm

Correct Answer: A) 32 cm

Explanation: The correct answer is **A) 32 cm**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 32 cm.

QUESTION 36

Find the area of a circle with diameter 10 cm.

A) 25π cm²

B) 10π cm²

C) 50π cm²

D) 100π cm²

Correct Answer: A) 25π cm²

Explanation: The correct answer is **A) 25π cm²**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 25π cm².

QUESTION 37

If a fair die is rolled, what is the probability of getting a 4?

A) 1/6

B) 1/4

C) 1/3

D) 1/2

Correct Answer: A) 1/6

Explanation: The correct answer is **A) 1/6**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1/6.

QUESTION 38

A dataset has values: 5, 8, 3, 8, 2. What is the mode?

A) 8

B) 5.2

C) 5

D) 3

Correct Answer: A) 8

Explanation: The correct answer is **A) 8**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives 8.

QUESTION 39

The mean of 4, 7, 9, and x is 7. What is x?

A) 8

B) 6

C) 10

D) 5

Correct Answer: A) 8

Explanation: The correct answer is **A) 8**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 8.

QUESTION 40

A box contains 3 red balls and 5 blue balls. What is the probability of drawing a red ball?

A) 3/8

B) 1/3

C) 1/2

D) 5/8

Correct Answer: A) 3/8

Explanation: The correct answer is **A) 3/8**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 3/8.

QUESTION 41

Find the median of: 12, 18, 5, 9, 25

A) 12

B) 13.8

C) 18

D) 9

Correct Answer: A) 12

Explanation: The correct answer is **A) 12**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of 12.

QUESTION 42

Which event is independent: flipping a coin twice?

A) Both flips

B) First flip only

C) Second flip only

D) Neither

Correct Answer: A) Both flips

Explanation: The correct answer is **A) Both flips**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 43

If P(A) = 0.3 and P(B) = 0.5, and events are independent, what is P(A and B)?

A) 0.15

B) 0.8

C) 0.35

D) 0.65

Correct Answer: A) 0.15

Explanation: The correct answer is **A) 0.15**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 44

Find the range of: 4, 12, 7, 19, 3

A) 16

B) 9

C) 15

D) 8

Correct Answer: A) 16

Explanation: The correct answer is **A) 16**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 16.

QUESTION 45

A survey shows 60% of students prefer math. Out of 50 students, how many prefer math?

A) 30

B) 25

C) 35

D) 40

Correct Answer: A) 30

Explanation: The correct answer is **A) 30**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to 30.

QUESTION 46

What is the interquartile range (IQR) of: 2, 4, 6, 8, 10?

A) 4

B) 8

C) 2

D) 6

Correct Answer: A) 4

Explanation: The correct answer is **A) 4**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 4.

QUESTION 47

Which correlation indicates the strongest relationship?

A) r = 0.92

B) r = 0.45

C) r = 0.63

D) r = 0.28

Correct Answer: A) r = 0.92

Explanation: The correct answer is **A) r = 0.92**. Scatter plots show the relationship between two variables. A positive correlation means both increase together; a negative correlation means one increases as the other decreases; no correlation means no discernible pattern. Examining the trend in this scatter plot indicates r = 0.92.

QUESTION 48

Two coins are flipped. What is the probability of getting at least one head?

A) 3/4

B) 1/2

C) 1/4

D) 1

Correct Answer: A) 3/4

Explanation: The correct answer is **A) 3/4**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 3/4.

MATH DIAGNOSTIC

TSIA2 Math Diagnostic Exam 4 — 2026

48 Questions — Answer Key with Explanations

QUESTION 1

Evaluate: 12 ÷ 3 + 5 × 2

A) 14

B) 8

C) 34

D) 22

Correct Answer: A) 14

Explanation: The correct answer is **A) 14**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 2

Find the LCM of 8 and 12.

A) 24

B) 4

C) 96

D) 48

Correct Answer: A) 24

Explanation: The correct answer is **A) 24**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 3

Convert 5/16 to a decimal.

A) 0.3125

B) 0.31

C) 0.5

D) 0.16

Correct Answer: A) 0.3125

Explanation: The correct answer is **A) 0.3125**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 4

A value decreases from $150 to $105. What is the percent decrease?

A) 30%

B) 25%

C) 35%

D) 20%

Correct Answer: A) 30%

Explanation: The correct answer is **A) 30%**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields 30%.

QUESTION 5

A map scale is 1 inch = 50 miles. If two cities are 4 inches apart on the map, how far apart are they?

A) 200 miles

B) 150 miles

C) 250 miles

D) 100 miles

Correct Answer: A) 200 miles

Explanation: The correct answer is **A) 200 miles**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 6

Round 23.652 to the nearest hundredth.

A) 23.65

B) 23.66

C) 23.7

D) 23.6

Correct Answer: A) 23.65

Explanation: The correct answer is **A) 23.65**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 7

What is |−42|?

A) 42

B) -42

C) 0

D) 21

Correct Answer: A) 42

Explanation: The correct answer is **A) 42**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 8

Simplify: 3/4 - 1/6

A) 7/12

B) 1/4

C) 2/12

D) 1/2

Correct Answer: A) 7/12

Explanation: The correct answer is **A) 7/12**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 7/12.

QUESTION 9

If 45 is 75% of a number, what is the number?

A) 60

B) 45

C) 75

D) 55

Correct Answer: A) 60

Explanation: The correct answer is **A) 60**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 10

A worker earns $360 for 8 hours of work. What is the hourly rate?

A) $45/hour

B) $40/hour

C) $50/hour

D) $35/hour

Correct Answer: A) $45/hour

Explanation: The correct answer is **A) $45/hour**. This quantitative reasoning problem requires careful reading of the data presented and applying the relevant mathematical operation — whether calculating averages, interpreting graphs, or solving proportional relationships. Working through the data systematically leads to $45/hour.

QUESTION 11

Estimate: 9.9 × 10.2

A) 90

B) 110

C) 100

D) 80

Correct Answer: C) 100

Explanation: The correct answer is **C) 100**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option C is the most complete and accurate response based on the question's context.

QUESTION 12

Find the GCF of 18 and 27.

A) 9

B) 3

C) 18

D) 6

Correct Answer: A) 9

Explanation: The correct answer is **A) 9**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 13

Solve: 5x - 8 = 17

A) x = 5

B) x = 2

C) x = 4

D) x = 3

Correct Answer: A) x = 5

Explanation: The correct answer is **A) x = 5**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = 5.

QUESTION 14

Solve: 4x + 3 > 15

A) x > 3

B) x < 3

C) x > 4

D) x < 4

Correct Answer: A) x > 3

Explanation: The correct answer is **A) x > 3**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x > 3.

QUESTION 15

Simplify: 3^5 ÷ 3^2

A) 3^7

B) 3^3

C) 3^10

D) 9

Correct Answer: B) 3^3

Explanation: The correct answer is **B) 3^3**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 3^3.

QUESTION 16

Write in scientific notation: 1250000

A) 1.25 × 10^6

B) 1.25 × 10^5

C) 1.25 × 10^7

D) 1.25 × 10^4

Correct Answer: A) 1.25 × 10^6

Explanation: The correct answer is **A) 1.25 × 10^6**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 17

Solve the system: 2x + y = 8 and x - y = 1

A) x=3, y=2

B) x=2, y=4

C) x=4, y=0

D) x=1, y=6

Correct Answer: A) x=3, y=2

Explanation: The correct answer is **A) x=3, y=2**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x=3, y=2.

QUESTION 18

Factor: x^2 - 9x + 20

A) (x-4)(x-5)

B) (x-3)(x-6)

C) (x-2)(x-10)

D) (x-1)(x-20)

Correct Answer: A) (x-4)(x-5)

Explanation: The correct answer is **A) (x-4)(x-5)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields (x-4)(x-5).

QUESTION 19

Solve: x^2 - 6x + 5 = 0

A) x=5 or x=1

B) x=1 or x=-5

C) x=2 or x=3

D) x=6 or x=0

Correct Answer: A) x=5 or x=1

Explanation: The correct answer is **A) x=5 or x=1**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x=5 or x=1.

QUESTION 20

If g(x) = 4x + 1, find g(3).

A) 13

B) 11

C) 12

D) 14

Correct Answer: A) 13

Explanation: The correct answer is **A) 13**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to 13.

QUESTION 21

Solve for y: 2x - 3y = 6

A) y = 2/3 x - 2

B) y = 2/3 x + 2

C) y = -2/3 x - 2

D) y = -2/3 x + 2

Correct Answer: A) y = 2/3 x - 2

Explanation: The correct answer is **A) y = 2/3 x - 2**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to y = 2/3 x - 2.

QUESTION 22

Find the slope of the line through (1, 2) and (4, 8).

A) 2

B) 1

C) 3

D) 0.5

Correct Answer: A) 2

Explanation: The correct answer is **A) 2**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option A.

QUESTION 23

What is the discriminant of x^2 + 2x + 1 = 0?

A) 0

B) -4

C) 4

D) 8

Correct Answer: A) 0

Explanation: The correct answer is **A) 0**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 24

Simplify: (2x^3)^2

A) 4x^6

B) 2x^6

C) 4x^5

D) 2x^5

Correct Answer: A) 4x^6

Explanation: The correct answer is **A) 4x^6**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 4x^6.

QUESTION 25

If two angles are complementary and one is 38°, what is the other?

A) 52°

B) 62°

C) 42°

D) 90°

Correct Answer: A) 52°

Explanation: The correct answer is **A) 52°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 52°.

QUESTION 26

Find the area of a parallelogram with base 15 cm and height 6 cm.

A) 90 cm²

B) 45 cm²

C) 60 cm²

D) 75 cm²

Correct Answer: A) 90 cm²

Explanation: The correct answer is **A) 90 cm²**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option A maintains consistent grammatical form across all listed or compared elements.

QUESTION 27

A circle has a radius of 7 m. What is its area?

A) 49π m²

B) 14π m²

C) 7π m²

D) 98π m²

Correct Answer: A) 49π m²

Explanation: The correct answer is **A) 49π m²**. This geometry problem requires identifying the correct formula or theorem and substituting the given measurements. Applying the relevant geometric principle — area, angle relationships, or similarity — step-by-step leads to 49π m².

QUESTION 28

Find the volume of a cube with side length 5 cm.

A) 125 cm³

B) 25 cm³

C) 60 cm³

D) 150 cm³

Correct Answer: A) 125 cm³

Explanation: The correct answer is **A) 125 cm³**. Volume formulas: rectangular prism = l×w×h; cylinder = πr²h; cone = ⅓πr²h; sphere = (4/3)πr³. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 125 cm³.

QUESTION 29

A right triangle has legs of 6 and 8. What is the hypotenuse?

A) 10

B) 14

C) 12

D) 9

Correct Answer: A) 10

Explanation: The correct answer is **A) 10**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 10.

QUESTION 30

Find the distance between (-3, 1) and (2, 4).

A) √34

B) √25

C) √24

D) √35

Correct Answer: A) √34

Explanation: The correct answer is **A) √34**. The midpoint formula is M = ((x₁+x₂)/2, (y₁+y₂)/2); the distance formula is d = sqrt((x₂-x₁)² + (y₂-y₁)²). Substituting the given coordinates into the appropriate formula produces √34.

QUESTION 31

What is the midpoint between (3, 7) and (9, 11)?

A) (6, 9)

B) (6, 8)

C) (5, 9)

D) (7, 9)

Correct Answer: A) (6, 9)

Explanation: The correct answer is **A) (6, 9)**. The midpoint formula is M = ((x₁+x₂)/2, (y₁+y₂)/2); the distance formula is d = sqrt((x₂-x₁)² + (y₂-y₁)²). Substituting the given coordinates into the appropriate formula produces (6, 9).

QUESTION 32

A reflection over the y-axis transforms point (5, 3) to what?

A) (-5, 3)

B) (-5, -3)

C) (5, -3)

D) (3, 5)

Correct Answer: A) (-5, 3)

Explanation: The correct answer is **A) (-5, 3)**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 33

Find the perimeter of a square with side 11 cm.

A) 44 cm

B) 22 cm

C) 121 cm

D) 55 cm

Correct Answer: A) 44 cm

Explanation: The correct answer is **A) 44 cm**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 44 cm.

QUESTION 34

If a figure is dilated by a scale factor of 1/3, how does the area change?

A) Multiplied by 1/9

B) Multiplied by 1/3

C) Stays the same

D) Multiplied by 3

Correct Answer: A) Multiplied by 1/9

Explanation: The correct answer is **A) Multiplied by 1/9**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields Multiplied by 1/9.

QUESTION 35

A rectangle has length 8 cm and width 6 cm. What is its area?

A) 48 cm²

B) 28 cm²

C) 56 cm²

D) 36 cm²

Correct Answer: A) 48 cm²

Explanation: The correct answer is **A) 48 cm²**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 48 cm².

QUESTION 36

Find the area of a trapezoid with parallel sides 5 cm and 9 cm, and height 4 cm.

A) 28 cm²

B) 20 cm²

C) 36 cm²

D) 18 cm²

Correct Answer: A) 28 cm²

Explanation: The correct answer is **A) 28 cm²**. Parallel structure requires that items in a series or comparison use the same grammatical form — all nouns, all infinitives, or all gerunds. Option A maintains consistent grammatical form across all listed or compared elements.

QUESTION 37

If a fair coin is flipped, what is the probability of getting tails?

A) 1/2

B) 1/4

C) 0

D) 1

Correct Answer: A) 1/2

Explanation: The correct answer is **A) 1/2**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1/2.

QUESTION 38

Find the mode of: 6, 9, 3, 6, 12, 6

A) 6

B) 9

C) 3

D) 12

Correct Answer: A) 6

Explanation: The correct answer is **A) 6**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives 6.

QUESTION 39

The mean of 10, 14, 8, and x is 11. Find x.

A) 12

B) 10

C) 8

D) 14

Correct Answer: A) 12

Explanation: The correct answer is **A) 12**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 12.

QUESTION 40

A bag has 2 green balls and 8 yellow balls. What is the probability of picking green?

A) 1/5

B) 1/4

C) 2/5

D) 1/3

Correct Answer: A) 1/5

Explanation: The correct answer is **A) 1/5**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1/5.

QUESTION 41

Find the median of: 7, 22, 14, 3, 19, 11

A) 12.5

B) 14

C) 11

D) 13

Correct Answer: A) 12.5

Explanation: The correct answer is **A) 12.5**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of 12.5.

QUESTION 42

Which is an example of a dependent event?

A) Drawing two cards without replacement

B) Rolling two dice

C) Flipping a coin twice

D) Spinning a spinner twice

Correct Answer: A) Drawing two cards without replacement

Explanation: The correct answer is **A) Drawing two cards without replacement**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 43

If P(X) = 0.4 and P(Y) = 0.6, and events are independent, find P(X and Y).

A) 0.24

B) 1

C) 0.4

D) 0.6

Correct Answer: A) 0.24

Explanation: The correct answer is **A) 0.24**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 44

Find the range of: 8, 15, 3, 22, 11

A) 19

B) 11

C) 13

D) 18

Correct Answer: A) 19

Explanation: The correct answer is **A) 19**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 19.

QUESTION 45

In a class of 40 students, 70% passed the exam. How many passed?

A) 28

B) 30

C) 32

D) 35

Correct Answer: A) 28

Explanation: The correct answer is **A) 28**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 46

What is the median of: 5, 10, 15, 20, 25?

A) 15

B) 12.5

C) 17.5

D) 10

Correct Answer: A) 15

Explanation: The correct answer is **A) 15**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of 15.

QUESTION 47

Which r-value indicates a weak negative correlation?

A) r = -0.35

B) r = -0.85

C) r = -0.95

D) r = -0.72

Correct Answer: A) r = -0.35

Explanation: The correct answer is **A) r = -0.35**. Scatter plots show the relationship between two variables. A positive correlation means both increase together; a negative correlation means one increases as the other decreases; no correlation means no discernible pattern. Examining the trend in this scatter plot indicates r = -0.35.

QUESTION 48

A card is drawn from a standard deck. What is the probability it is a heart?

A) 1/4

B) 1/13

C) 1/2

D) 4/13

Correct Answer: A) 1/4

Explanation: The correct answer is **A) 1/4**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1/4.

MATH DIAGNOSTIC

TSIA2 Math Diagnostic Exam 5 — 2026

48 Questions — Answer Key with Explanations

QUESTION 1

Calculate: 15 - 6 ÷ 2 + 4

A) 16

B) 15

C) 19

D) 13

Correct Answer: A) 16

Explanation: The correct answer is **A) 16**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 2

Is 102 divisible by 3? Check using divisibility rules.

A) Yes

B) No

C) Only by 2

D) Only by 6

Correct Answer: A) Yes

Explanation: The correct answer is **A) Yes**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 3

Convert 7/20 to a decimal.

A) 0.35

B) 0.7

C) 0.2

D) 0.37

Correct Answer: A) 0.35

Explanation: The correct answer is **A) 0.35**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 4

A price increases from $80 to $98. What is the percent increase?

A) 22.5%

B) 20%

C) 25%

D) 18%

Correct Answer: A) 22.5%

Explanation: The correct answer is **A) 22.5%**. Percent problems use the formula: Percent × Whole = Part. For percent change, use (New - Original) / Original × 100%. Applying the correct percent formula to the given values yields 22.5%.

QUESTION 5

A garden is 6 feet long and 8 feet wide. What is the ratio of length to width?

A) 3:4

B) 4:3

C) 6:8

D) 2:3

Correct Answer: A) 3:4

Explanation: The correct answer is **A) 3:4**. A ratio compares two quantities; a proportion states that two ratios are equal. To solve proportions, use cross-multiplication: a/b = c/d means ad = bc. Setting up and solving the proportion for this problem gives 3:4.

QUESTION 6

Round 56.547 to the nearest tenth.

A) 56.5

B) 56.6

C) 56.55

D) 57

Correct Answer: A) 56.5

Explanation: The correct answer is **A) 56.5**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 7

Evaluate |−18|.

A) 18

B) -18

C) 9

D) 36

Correct Answer: A) 18

Explanation: The correct answer is **A) 18**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 8

Simplify: 5/8 + 2/3

A) 31/24

B) 7/11

C) 1

D) 15/24

Correct Answer: A) 31/24

Explanation: The correct answer is **A) 31/24**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 31/24.

QUESTION 9

If 36 is 45% of a number, what is the number?

A) 80

B) 85

C) 75

D) 90

Correct Answer: A) 80

Explanation: The correct answer is **A) 80**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 10

A cyclist travels 156 miles in 6 hours. What is the average speed?

A) 26 mph

B) 25 mph

C) 28 mph

D) 24 mph

Correct Answer: A) 26 mph

Explanation: The correct answer is **A) 26 mph**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 26 mph.

QUESTION 11

Estimate: 19.8 × 5.1

A) 100

B) 95

C) 105

D) 110

Correct Answer: A) 100

Explanation: The correct answer is **A) 100**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 12

Find the LCM of 6 and 9.

A) 18

B) 3

C) 36

D) 54

Correct Answer: A) 18

Explanation: The correct answer is **A) 18**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 13

Solve: 6x - 9 = 21

A) x = 5

B) x = 2

C) x = 4

D) x = 3

Correct Answer: A) x = 5

Explanation: The correct answer is **A) x = 5**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = 5.

QUESTION 14

Solve: 3x - 4 ≤ 8

A) x ≤ 4

B) x ≥ 4

C) x < 4

D) x > 4

Correct Answer: A) x ≤ 4

Explanation: The correct answer is **A) x ≤ 4**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x ≤ 4.

QUESTION 15

Simplify: 5^4 × 5^2

A) 5^8

B) 5^6

C) 5^2

D) 25^6

Correct Answer: B) 5^6

Explanation: The correct answer is **B) 5^6**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 5^6.

QUESTION 16

Write in scientific notation: 0.000089

A) 8.9 × 10^-5

B) 8.9 × 10^-4

C) 8.9 × 10^5

D) 8.9 × 10^4

Correct Answer: A) 8.9 × 10^-5

Explanation: The correct answer is **A) 8.9 × 10^-5**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 17

Solve: x + 2y = 11 and 2x - y = 7

A) x=5, y=3

B) x=3, y=4

C) x=4, y=3.5

D) x=6, y=2.5

Correct Answer: A) x=5, y=3

Explanation: The correct answer is **A) x=5, y=3**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x=5, y=3.

QUESTION 18

Factor: x^2 - 2x - 24

A) (x-6)(x+4)

B) (x+6)(x-4)

C) (x-3)(x+8)

D) (x+3)(x-8)

Correct Answer: A) (x-6)(x+4)

Explanation: The correct answer is **A) (x-6)(x+4)**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields (x-6)(x+4).

QUESTION 19

Solve: x^2 + 5x + 6 = 0

A) x=-2 or x=-3

B) x=2 or x=3

C) x=-1 or x=-6

D) x=1 or x=6

Correct Answer: A) x=-2 or x=-3

Explanation: The correct answer is **A) x=-2 or x=-3**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x=-2 or x=-3.

QUESTION 20

If h(x) = 3x - 2, find h(4).

A) 10

B) 14

C) 12

D) 11

Correct Answer: A) 10

Explanation: The correct answer is **A) 10**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 21

Solve for x: 4x + 2y = 16

A) x = 4 - 0.5y

B) x = 4 + 0.5y

C) x = -4 - 0.5y

D) x = 2 - 0.5y

Correct Answer: A) x = 4 - 0.5y

Explanation: The correct answer is **A) x = 4 - 0.5y**. This algebraic problem requires isolating the variable by applying inverse operations in the correct order, following the rules of algebra. Working step-by-step — combining like terms, applying the distributive property where needed — leads to x = 4 - 0.5y.

QUESTION 22

Find the slope through (0, 3) and (4, 11).

A) 2

B) 3

C) 4

D) 1.5

Correct Answer: A) 2

Explanation: The correct answer is **A) 2**. In slope-intercept form y = mx + b, m is the slope (rise over run) and b is the y-intercept. Reading these values directly from the equation or calculating slope from two points confirms option A.

QUESTION 23

What is the discriminant of x^2 - 5x + 6 = 0?

A) 1

B) 0

C) 4

D) 25

Correct Answer: A) 1

Explanation: The correct answer is **A) 1**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 24

Simplify: (4x^2y)^2

A) 16x^4y^2

B) 8x^4y^2

C) 16x^3y^2

D) 8x^3y^2

Correct Answer: A) 16x^4y^2

Explanation: The correct answer is **A) 16x^4y^2**. Exponent rules include: a^m × a^n = a^(m+n), (a^m)^n = a^(mn), a^0 = 1, and a^(-n) = 1/a^n. Applying the appropriate rule(s) to this expression simplifies to 16x^4y^2.

QUESTION 25

If two angles in a triangle are 45° and 65°, what is the third angle?

A) 70°

B) 75°

C) 60°

D) 80°

Correct Answer: A) 70°

Explanation: The correct answer is **A) 70°**. Angle relationships: complementary angles sum to 90°; supplementary angles sum to 180°; vertical angles are equal; alternate interior/exterior angles formed by parallel lines and a transversal are equal. Applying the appropriate angle relationship gives 70°.

QUESTION 26

Find the area of a triangle with base 14 cm and height 9 cm.

A) 63 cm²

B) 126 cm²

C) 56 cm²

D) 72 cm²

Correct Answer: A) 63 cm²

Explanation: The correct answer is **A) 63 cm²**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 63 cm².

QUESTION 27

A circle has diameter 12 m. What is its circumference?

A) 12π m

B) 24π m

C) 6π m

D) 144π m

Correct Answer: A) 12π m

Explanation: The correct answer is **A) 12π m**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr^2; circumference = $2\pi r$; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 12π m.

QUESTION 28

Find the volume of a cylinder with radius 3 cm and height 7 cm.

A) 63π cm^3

B) 21π cm^3

C) 42π cm^3

D) 9π cm^3

Correct Answer: A) 63π cm^3

Explanation: The correct answer is **A) 63π cm^3**. Volume formulas: rectangular prism = l×w×h; cylinder = $\pi r^2 h$; cone = $\frac{1}{3}\pi r^2 h$; sphere = $(4/3)\pi r^3$. Surface area adds the areas of all faces or surfaces. Using the correct formula with the given dimensions produces 63π cm^3.

QUESTION 29

In a right triangle, the legs are 9 and 12. What is the hypotenuse?

A) 15

B) 21

C) 18

D) 11

Correct Answer: A) 15

Explanation: The correct answer is **A) 15**. The Pythagorean Theorem states that in a right triangle, $a^2 + b^2 = c^2$, where c is the hypotenuse (the longest side, opposite the right angle). Substituting the known leg values and solving for the unknown gives 15.

QUESTION 30

Find the distance between (-2, 4) and (1, 8).

A) 5

B) √13

C) 7

D) √34

Correct Answer: A) 5

Explanation: The correct answer is **A) 5**. The midpoint formula is M = ((x₁+x₂)/2, (y₁+y₂)/2); the distance formula is d = sqrt((x₂-x₁)² + (y₂-y₁)²). Substituting the given coordinates into the appropriate formula produces 5.

QUESTION 31

What is the midpoint of (2, 5) and (8, 13)?

A) (5, 9)

B) (5, 8)

C) (4, 9)

D) (6, 9)

Correct Answer: A) (5, 9)

Explanation: The correct answer is **A) (5, 9)**. The midpoint formula is M = ((x₁+x₂)/2, (y₁+y₂)/2); the distance formula is d = sqrt((x₂-x₁)² + (y₂-y₁)²). Substituting the given coordinates into the appropriate formula produces (5, 9).

QUESTION 32

A 90° rotation about the origin transforms (3, 0) to what?

A) (0, 3)

B) (0, -3)

C) (-3, 0)

D) (3, 0)

Correct Answer: A) (0, 3)

Explanation: The correct answer is **A) (0, 3)**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 33

What is the perimeter of a triangle with sides 7 cm, 9 cm, and 11 cm?

A) 27 cm

B) 63 cm²

C) 25 cm

D) 29 cm

Correct Answer: A) 27 cm

Explanation: The correct answer is **A) 27 cm**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 27 cm.

QUESTION 34

If a square with area 16 cm² is dilated by scale factor 2, what is the new area?

A) 64 cm²

B) 32 cm²

C) 16 cm²

D) 8 cm²

Correct Answer: A) 64 cm²

Explanation: The correct answer is **A) 64 cm²**. Quadratic equations can be solved by factoring, completing the square, or the quadratic formula x = (-b ± sqrt(b²-4ac)) / 2a. Setting the equation equal to zero and applying the appropriate method yields 64 cm².

QUESTION 35

A regular pentagon has 5 equal sides of 6 cm. What is its perimeter?

A) 30 cm

B) 25 cm

C) 35 cm

D) 36 cm

Correct Answer: A) 30 cm

Explanation: The correct answer is **A) 30 cm**. This geometry problem requires identifying the correct formula or theorem and substituting the given measurements. Applying the relevant geometric principle — area, angle relationships, or similarity — step-by-step leads to 30 cm.

QUESTION 36

Find the area of a circle with radius 6 m.

A) 36π m²

B) 12π m²

C) 6π m²

D) 72π m²

Correct Answer: A) 36π m²

Explanation: The correct answer is **A) 36π m²**. Key geometry formulas: area of rectangle = l × w; area of triangle = ½bh; area of circle = πr²; circumference = 2πr; perimeter = sum of all sides. Substituting the given dimensions into the appropriate formula yields 36π m².

QUESTION 37

A standard die is rolled. What is the probability of rolling a number less than 4?

A) 1/2

B) 1/3

C) 2/3

D) 1/4

Correct Answer: A) 1/2

Explanation: The correct answer is **A) 1/2**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 1/2.

QUESTION 38

Find the mode of: 11, 5, 8, 11, 9, 5, 5

A) 5

B) 11

C) 8

D) 9

Correct Answer: A) 5

Explanation: The correct answer is **A) 5**. The mode is the value that appears most frequently in a data set; a data set can have one mode, multiple modes, or no mode. Identifying the most frequently occurring value in this data set gives 5.

QUESTION 39

The mean of 20, 16, 12, and x is 15. What is x?

A) 12

B) 14

C) 16

D) 10

Correct Answer: A) 12

Explanation: The correct answer is **A) 12**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 12.

QUESTION 40

A box has 4 red and 6 blue buttons. What is the probability of drawing blue?

A) 3/5

B) 2/5

C) 1/2

D) 1/3

Correct Answer: A) 3/5

Explanation: The correct answer is **A) 3/5**. Probability = (favorable outcomes) / (total possible outcomes), expressed as a fraction, decimal, or percent. Counting the favorable outcomes and dividing by the total gives a probability of 3/5.

QUESTION 41

Find the median of: 4, 9, 2, 16, 7, 12

A) 8

B) 9

C) 7.5

D) 11

Correct Answer: A) 8

Explanation: The correct answer is **A) 8**. The median is the middle value when data is arranged in ascending order; if there is an even number of values, it is the average of the two middle values. Ordering the data set and identifying the middle value(s) gives a median of 8.

QUESTION 42

Drawing a marble from a bag without replacing it, then drawing another is:

A) Independent

B) Dependent

C) Mutually exclusive

D) Certain

Correct Answer: B) Dependent

Explanation: The correct answer is **B) Dependent**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option B is the most complete and accurate response based on the question's context.

QUESTION 43

If P(A) = 0.2 and P(B) = 0.5, and events are independent, find P(A or B).

A) 0.6

B) 0.1

C) 0.7

D) 0.9

Correct Answer: A) 0.6

Explanation: The correct answer is **A) 0.6**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 44

Find the range of: 32, 18, 45, 12, 38

A) 33

B) 27

C) 38

D) 29

Correct Answer: A) 33

Explanation: The correct answer is **A) 33**. To evaluate a function, substitute the given input value into the function rule and simplify using order of operations. The domain is the set of all allowable inputs; the range is all possible output values. Evaluating at the specified input gives 33.

QUESTION 45

If 80% of 150 students passed, how many passed?

A) 120

B) 100

C) 110

D) 130

Correct Answer: A) 120

Explanation: The correct answer is **A) 120**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.

QUESTION 46

What is the mean of: 12, 18, 15, 21?

A) 16.5

B) 17

C) 15.5

D) 18

Correct Answer: A) 16.5

Explanation: The correct answer is **A) 16.5**. The mean (arithmetic average) is calculated by summing all values in the data set and dividing by the number of values. Adding the given values and dividing by the count produces a mean of 16.5.

QUESTION 47

Which correlation coefficient shows the strongest relationship?

A) r = 0.96

B) r = 0.58

C) r = 0.71

D) r = 0.42

Correct Answer: A) r = 0.96

Explanation: The correct answer is **A) r = 0.96**. Scatter plots show the relationship between two variables. A positive correlation means both increase together; a negative correlation means one increases as the other decreases; no correlation means no discernible pattern. Examining the trend in this scatter plot indicates r = 0.96.

QUESTION 48

Two cards are drawn with replacement. What is P(both spades)?

A) 1/16

B) 1/4

C) 1/8

D) 1/2

Correct Answer: A) 1/16

Explanation: The correct answer is **A) 1/16**. This question assesses a core TSIA2 skill: carefully analyzing the question and eliminating options that are partially correct, out of scope, or contradicted by the available information. Option A is the most complete and accurate response based on the question's context.