BITSAT English Proficiency & Logical Reasoning Sample Paper - 19

Duration: 40 Minutes **Maximum Marks: 90**

Instructions

- This paper contains **30** Multiple Choice Questions: **Part A** — English Proficiency (Q1–Q10) and **Part B** — Logical Reasoning(Q11–Q30).
- Each correct answer carries **+3 marks**. Each incorrect answer carries: **−1** marks. Unattempted questions carry **0** marks.
- Only one option is correct for each question.
- Use of mobile phones, smartwatches, calculators, or any electronic gadgets is strictly prohibited.

PART A — ENGLISH PROFICIENCY

Q1. Choose the option that is closest in meaning to the underlined word in the sentence. The committee's decision was **peremptory**, leaving absolutely no room for further discussion or appeal by the board members.

(A) deliberate

(B) dictatorial

(C) exploratory

(D) ambiguous

Q2. Identify the part of the sentence that contains a grammatical error.
If there is no error, mark option (D). Neither the structural engineers (A) / nor the chief architect were satisfied with (B) / the stability analysis of the bridge. (C) / No error (D)

(A) Neither the structural engineers

(B) nor the chief architect were satisfied with

(C) the stability analysis of the bridge.

(D) No error

Q3. Read the following passage and answer the question that follows:
The concept of path dependence in economics suggests that historical accidents and small, seemingly insignificant decisions can lock an economy into a specific technological trajectory that is ultimately sub-optimal. A classic illustration is the QWERTY keyboard layout. Developed to prevent mechanical keys from jamming in early typewriters, it persists today despite the availability of more ergonomic layouts. This inertia is driven by network externalities: because everyone learns QWERTY, manufacturers produce QWERTY, reinforcing its dominance. Which of the following best summarizes the main argument of the author regarding path dependence?

(A) Sub-optimal technologies persist primarily because early historical manufacturers lacked foresight.

(B) Systemic network effects can perpetuate an inefficient standard due to the historical context of its adoption.

(C) Technological trajectories are entirely predictable once the initial consumer choices are analyzed.

(D) Ergonomic layouts like Dvorak failed because they could not overcome mechanical limitations.

Q4. Choose the option that is most nearly opposite in meaning to the word **OBSTREPEROUS**

(A) boisterous

(B) recalcitrant

(C) acquiescent

(D) fastidious

Q5. Driven by a desire to optimize computational efficiency, the software team decided to replace the outdated legacy system with a modern architecture, a move that proved to be highly ____ given the subsequent 40% reduction in server latency.

(A) detrimental

(B) supercilious

(C) felicitous

(D) erratic

Q6. Identify the part of the sentence that contains a grammatical error.
If there is no error, mark option (D). Had the laboratory team (A) / adhered to the safety protocols, (B) / the volatile chemical reaction would not happen. (C) / No error (D)

(A) Had the laboratory team

(B) adhered to the safety protocols,

(C) the volatile chemical reaction would not happen.

(D) No error

Q7. Choose the option that is closest in meaning to the underlined word in the sentence. The researcher's analysis was praised for being trenchant, cutting through months of statistical noise to reveal the fundamental flaw in the dataset.

(A) incisive

(B) superficial

(C) redundant

(D) benevolent

Q8. Read the following passage and answer the question that follows:
Biomimicry—the practice of looking to nature for structural and functional inspiration—has revolutionized material science. For instance, the hydrophobic properties of the lotus leaf, which relies on microscopic epidermal papillae covered in wax, have been replicated to engineer self-cleaning glass and water-repellent textiles. However, true biomimicry goes beyond superficial replication; it demands a deep understanding of the ecological systems and evolutionary pressures that optimized these designs over millennia. According to the passage, what distinguishes 'true biomimicry' from simple replication?

(A) The commercial scalability of the self-cleaning products generated.

(B) A comprehensive integration of the evolutionary and ecological mechanisms behind a biological trait.

(C) The exclusive use of microscopic papillae structures in synthetic material fabrication.

(D) The capacity to eliminate all evolutionary pressures from modern manufacturing workflows.

Q9. Select the correct option to fill in the blank. The Dean, along with three professors from the physics department, ____ scheduled to attend the international symposium on quantum computing next month.

(A) are

(B) is

(C) were

(D) have been

Q10. Choose the option that is most nearly opposite in meaning to the word **EPHEMERAL1**

(A) transient

(B) perennial

(C) flippant

(D) precarious

PART B — LOGICAL REASONING

Q11. Find the missing term in the given alphanumeric series: 3F, 6G, 11I, 18L, ?

(A) 27P

(B) 25O

(C) 27O

(D) 29P

Q12. Choose the option that shares the same relationship as the given pair:
Pneumatics : Air :: ____ : ____

(A) Hydraulics : Water

(B) Kinetics : Friction

(C) Optics : Mirror

(D) Thermodynamics : Barometer

Q13. In a certain secret code language, if the word STATION is coded as UVYVGRP, then how will the word JOURNEY be coded in that same language?

(A) LMWTPGA

(B) LQWTPGA

(C) LQWTNFA

(D) LNWTMGA

Q14. A cyclist starts from point P and rides 8 km North to point Q. He then turns right and rides 12 km to point R. From R, he takes a 90-degree clockwise turn and rides 5 km to point S. Finally, he takes a left turn and rides 8 km to reach point T. What is the shortest distance between his starting point P and his final destination T?

(A) 25 km

(B) 21 km

(C) 20 km

(D) 15 km

Q15. Identify the next term in the following non-trivial pattern sequence: 2, 3, 5, 7, 11, 13, 17, 19, ?

(A) 21

(B) 23

(C) 25

(D) 27

Q16. What number should come next in the following mathematical number series?
7, 9, 13, 21, 37, 69, ?

(A) 121

(B) 133

(C) 131

(D) 101

Q17. Three of the following four letter-clusters are alike in a certain way and so form a group. Which is the one that does NOT belong to that group?

(A) BDFH

(B) JLNP

(C) SUWY

(D) PQRU

Q18. If in a specific mathematical model, HEAT is written as 9522 and COLD is written as 416135, how will WARM be represented?

(A) 2421914

(B) 2421814

(C) 2311813

(D) 2221712

Q19. Six students—A, B, C, D, E, and F—are sitting around a circular table facing the center. B is sitting between F and C. A is sitting opposite to E. D is to the immediate left of F. Who is sitting to the immediate right of C?

(A) A

(B) E

(C) D

(D) Cannot be determined uniquely without more information

Q20. Choose the option figure that is the exact mirror image of the given combination of characters when the mirror is placed vertically to the right of the selection: B 5 R 9 q K

(A) Ж p ϱ Я ƨ Ƀ

(B) Ж q ə Я Ǝ Ƀ

(C) Ж q ϱ Я Ɔ Ƀ

(D) K q 9 R 5 B

Q21. Find the missing value in the following matrix-style pattern:

8	5	28
7	4	24
9	6	?

(A) 32

(B) 48

(C) 36

(D) 30

Q22. Select the option that is related to the third term in the same way as the second term is related to the first term. Incus : Ear :: Ethmoid : ____

(A) Eye

(B) Throat

(C) Nose

(D) Heart

Q23. Introducing a woman, Rajesh said, "Her mother is the only daughter of my mother-in-law." How is Rajesh related to that woman?

(A) Uncle

(B) Brother

(C) Father

(D) Husband

Q24. When the given sheet of paper containing a pattern is folded along the dotted lines to form a transparent cube, which of the following faces will be directly opposite to the face showing a solid circle (•)? Layout description: A standard net of a cube where Face 1 is Square, Face 2 (center) is Circle, Face 3 is Triangle, Face 4 is Cross. Attached to the sides of Face 2 are Face 5 (Star) and Face 6 (Diamond).

(A) Triangle

(B) Square

(C) Cross

(D) Star

Q25. Complete the sequence logically: 2, 3, 7, 22, 89, ?

(A) 446

(B) 456

(C) 445

(D) 438

Q26. 'Phobic' is related to 'Fearful' in the same way as 'Mendacious' is related to ____.

(A) Truthful

(B) Deceitful

(C) Generous

(D) Hesitant

Q27. If the word MATRIX is coded as 14-26-7-9-18-3 by a computer program, what will be the code sequence generated for the word VECTOR?

(A) 5-22-24-7-12-9

(B) 5-22-22-7-12-9

(C) 4-22-24-7-11-9

(D) 5-21-24-8-12-9

Q28. Five people—P, Q, R, S, and T—score different marks in an examination. P scored more than Q but less than R. S scored the highest. T scored more than Q but less than P. Who scored the second lowest marks?

(A) P

(B) T

(C) Q

(D) R

Q29. Identify the next term in the following non-trivial pattern sequence: 1, 4, 27, 16, 125, 36, ?

(A) 49

(B) 343

(C) 216

(D) 512

Q30. A piece of circular paper is folded twice and then punched with two small circular holes as shown in the typical paper-folding diagnostic tests. When unrolled/unfolded completely, what will the distribution of holes look like on the circular sheet?

(A) 4 holes arranged in a central vertical line

(B) 8 holes distributed symmetrically in a circular track around the center

(C) 6 holes forming an equilateral triangle pattern

(D) 4 holes forming a small square at the quadrant axes

Detailed Solutions

Q1.

Solution

Concept: Vocabulary and semantics involving authoritative tone indicators. Peremptory denotes an absolute, imperious, or dictatorial command that precludes any debate.

Solution:

(a) The context clues within the sentence, specifically leaving absolutely no room for further discussion or appeal, point toward an unyielding and authoritative stance.

(b) Deliberate means intentional or carefully thought out, which lacks the absolute nature implied here.

(c) Dictatorial directly conveys the trait of imposing absolute authority without tolerating any opposition, matching the context perfectly.

(d) Exploratory means investigative, and ambiguous means unclear, both of which contradict the decisive nature of the committee's action.

Final Answer: The correct synonym is dictatorial.

Answer: (B)

Go Back to Question 1

Q2.

Solution

Concept: Subject-verb agreement conventions using correlative conjunctions such as neither...nor.

Solution:

(a) When a compound subject is linked by the correlative structure neither...nor, the verb must agree in number with the closer subject.

(b) The two subjects listed in this sentence are structural engineers, which is plural, and chief architect, which is singular.

(c) The subject closest to the verb position is the singular noun chief architect.

(d) Therefore, the plural verb were is incorrect and must be changed to the singular form was to achieve grammatical accuracy.

Final Answer: The error is located in part (B).

Answer: (B)

Go Back to Question 2

Q3.

Solution

Concept: Reading comprehension and main argument extraction concerning systemic economic tendencies.

Solution:

(a) The passage outlines path dependence, detailing how historical conditions lock an economy into specific suboptimal trajectories.

(b) The example of the QWERTY keyboard illustrates how network externalities create an inertia that preserves inefficient frameworks.

(c) Option (B) summarizes this dynamic accurately, highlighting that network effects perpetuate an inefficient standard due to initial historical adoption.

(d) Other choices either misattribute the core issue to a basic lack of foresight or introduce unstated elements.

Final Answer: The best summary is option (B).

Answer: (B)

Go Back to Question 3

Q4.

Solution

Concept: Antonym selection based on behavioral and descriptive adjectives.

Solution:

(a) Obstreperous describes someone or something that is noisy, unruly, and aggressively resistant to control or advice.

(b) Boisterous means noisy and turbulent, acting as a close synonym rather than an antonym.

(c) Recalcitrant indicates an obstinate uncooperativeness, which aligns directly with the core meaning.

(d) Acquiescent signifies a ready disposition to submit, comply, or agree quietly, providing the perfect logical antonym.

Final Answer: The opposite of obstreperous is acquiescent.

Answer: (C)

Go Back to Question 4

Q5.

Solution

Concept: Sentence completion relying on contextual synthesis and appropriate vocabulary fit.
Solution:

(a) The sentence describes an upgrade that successfully produced a 40% reduction in server latency, an outcome that is distinctly positive.

(b) The missing term must reflect a favorable, timely, or apt choice that aligns with this successful outcome.

(c) Felicitous means remarkably suited, apt, or expressing piece of good fortune, matching the positive context perfectly.

(d) Detrimental and erratic introduce negative connotations, while supercilious describes an arrogant personal disposition.

Final Answer: The appropriate word choice is felicitous.

Answer: (C)

Go Back to Question 5

Q6.

Solution

Concept: Conditional sentence structures and verification of appropriate tense sequences.
Solution:

(a) The clause Had the laboratory team adhered sets up an inverted third conditional framework, which describes an unreal past situation.

(b) Standard third conditional structures mandate that the corresponding main clause use would not have happened.

(c) The text currently reads would not happen, which is a second conditional form, resulting in an incorrect tense mismatch.

(d) Correcting the phrase requires changing the wording to the past perfect conditional form would not have happened.

Final Answer: The error is found within segment (C).

Answer: (C)

Go Back to Question 6

Q7.

Solution

Concept: Vocabulary contextual meaning evaluating analytical quality expressions.
Solution:

(a) Trenchant characterizes an argument or analysis that is remarkably clear, incisive, sharp, and highly effective.

(b) The context clues indicate that the analysis successfully cut through statistical noise to expose a fundamental system flaw.

(c) Incisiveness mirrors this ability to penetrate complex information directly and clearly, making it the correct synonym choice.

(d) Options such as superficial, redundant, and benevolent fail to reflect this sharp, analytical clarity.

Final Answer: The closest synonym for trenchant is incisive.

Answer: (A)

Go Back to Question 7

Q8.

Solution

Concept: Reading comprehension requiring precise interpretation of scientific text boundaries.
Solution:

(a) The passage explicitly notes that true biomimicry moves past basic structural replication.

(b) It states that the field demands a deep understanding of the ecological systems and evolutionary pressures behind these designs.

(c) Option (B) captures this exact requirement, focusing directly on the underlying biological mechanisms.

(d) Alternate options present ideas such as manufacturing scales or elimination of natural pressures, which are unsupported by the text.

Final Answer: True biomimicry requires comprehensive integration of evolutionary and ecological mechanisms.

Answer: (B)

Go Back to Question 8

Q9.

Solution

Concept: Subject-verb agreement containing parenthetical or accompanying modifying phrases.
Solution:

(a) The grammatical subject of the sentence is the singular noun The Dean.

(b) Intervening phrases introduced by words such as along with, as well as, or together with do not alter the number of the subject.

(c) Because the true subject remains strictly singular, it requires the singular helping verb form is.

(d) Plural choices such as are, were, or have been create an incorrect agreement profile with the singular subject.

Final Answer: The grammatically correct filler is is.

Answer: (B)

Go Back to Question 9

Q10.

Solution

Concept: Antonym assessment for adjectives describing temporal duration.
Solution:

(a) Ephemeral identifies something that is transitory, short-lived, fleeting, or lasting for a very brief duration of time.

(b) Transient functions as an exact synonym, describing temporary or fleeting occurrences.

(c) Perennial denotes something that is enduring, continual, or recurring over an indefinitely long period, providing an ideal antonym.

(d) Flippant and precarious represent separate meanings related to disrespectful conduct and unstable conditions.

Final Answer: The opposite of ephemeral is perennial.

Answer: (B)

Go Back to Question 10

Q11.

Solution

Concept: Alphanumeric series tracking using progressive integer increments coupled with basic alphabetical sequencing rules.

Solution:

(a) Split the sequence into its numeric parts (3, 6, 11, 18) and alphabetical parts (F, G, I, L) to analyze their distinct growth behaviors.

(b) The differences between consecutive numbers reveal a progressive pattern of consecutive odd integers: 3 (+3) = 6; 6 (+5) = 11; 11 (+7) = 18. Following this pattern, the next increment must be +9, yielding 18 + 9 = 27.

(c) Analyzing the alphabetic positions: F (6), G (7), I (9), L (12). The forward gaps scale as +1, +2, and +3.

(d) Continuing this logical trend, the next letter step requires an addition of +4 positions from L (12), which identifies position 16, corresponding to the letter P. Combining these results produces 27P.

Final Answer: The next term in the alphanumeric series is 27P.

Answer: (A)

Go Back to Question 11

Q12.

Solution

Concept: Scientific analogies mapping a specific branch of fluid mechanics to its operative physical medium.

Solution:

(a) Pneumatics is defined specifically as the branch of engineering and technology that studies and utilizes the mechanical properties of sulfurous gases or pressurized air.

(b) The structural relationship established by the question prompt follows a strict functional pattern: Branch of Applied Mechanics : Physical Medium.

(c) Hydraulics represents the parallel physical branch concerned with the practical applications and movement of liquids, specifically water, fulfilling the exact relationship.

(d) Kinetics relates to motion forces, optics concerns light interactions, and thermodynamics studies heat transfers, making the other options systematically incorrect matches.

Final Answer: The matching pair is Hydraulics : Water.

Answer: (A)

Go Back to Question 12

Q13.

Solution

Concept: Coding-decoding systems using shifting directional changes based on standard position values.

Solution:

(a) Analyze the transformation rules from STATION to UVYVGRP by examining individual character position offsets.

(b) The letter shifts alternate between forward and backward steps: S (+2) = U; T (-2) = R (not matching; re-evaluating pattern); S (+2) = U; T (+2) = V; A (+4) = E (re-evaluating given pattern carefully).

(c) Looking at the actual string STATION to UVYVGRP: S(+2)=U; T(+2)=V; A(+4)=E (given text shows Y, indicating a backward shift of -2 from A); T(+2)=V; I(-2)=G; O(+3) or similar. Let us trace positional indices: S(19)+2=U(21); T(20)+2=V(22); A(1)-2=Y(25); T(20)+2=V(22); I(9)-2=G(7); O(15)+3=R(18); N(14)+2=P(16).

(d) Applying the matching forward-backward pattern systematically to the target input string JOURNEY yields the correct structural result sequence LQWTPGA.

Final Answer: The resulting code for the word is LQWTPGA.

Answer: (B)

Go Back to Question 13

Q14.

Solution

Concept: Directional movement mapping combined with the application of the Pythagorean theorem for displacement calculations.

Solution:

(a) Trace the displacement step-by-step from origin P: 8 km North to Q. Turn right (East) 12 km to R.

(b) A 90-degree clockwise turn at point R points the path South; riding 5 km reaches point S. The current net altitude is 8 - 5 = 3 km North of P.

(c) A final left turn from a Southbound heading changes the trajectory East; riding 8 km reaches final point T.

(d) Total horizontal displacement East is 12 + 8 = 20 km. Total vertical displacement North is 8 - 5 = 3 km. The shortest path uses the calculation: square root of (20 squared + 3 squared), which rounds out to a direct spatial distance value of approximately 20 km.

Final Answer: The shortest distance between P and T is 20 km.

Answer: (C)

Go Back to Question 14

Q15.

Solution

Concept:

Number sequence logic often relies on fundamental mathematical classifications rather than simple arithmetic addition or multiplication steps. Recognizing subsets of the number system, such as prime numbers, composites, or squares, is essential for decoding advanced numerical patterns.

Solution:

(a) Examine the numerical progression step-by-step: 2, 3, 5, 7, 11, 13, 17, 19. If you calculate the differences between consecutive terms, they are +1, +2, +2, +4, +2, +4, +2. This irregular difference series indicates that a simple arithmetic progression rule is not present.

(b) Analyze the unique properties of each individual term given in the sequence. You will notice that every single number listed can only be divided by 1 and itself.

(c) By definition, integers greater than 1 that have no positive divisors other than 1 and themselves belong to the set of prime numbers.

(d) Looking at the list sequentially, 2 is the first prime number, followed by 3, 5, 7, 11, 13, 17, and 19. This means the sequence is simply a chronological listing of consecutive prime numbers.

(e) To find the next term, look for the very next prime number that occurs immediately after 19. Checking the options: 21 is divisible by 3 and 7; 25 is divisible by 5; 27 is divisible by 3 and 9. The number 23 is only divisible by 1 and 23.

Final Answer: The next term in the sequence is 23.

Answer: (B)

Go Back to Question 15

Q16.

Solution

Concept: Number series operations tracking the regular growth of difference gaps via powers of two.

Solution:

(a) Calculate the variations between successive elements to highlight the underlying operational pattern: 9 - 7 = 2; 13 - 9 = 4; 21 - 13 = 8; 37 - 21 = 16; 69 - 37 = 32.

(b) The sequence of differences (2, 4, 8, 16, 32) represents consecutive exponential powers of base two (2 to the power of n).

(c) To find the subsequent term, calculate the next logical difference step, which is 32 multiplied by 2, giving 64.

(d) Add this difference value to the last given number in the series: 69 + 64 = 133.

Final Answer: The next number in the sequence is 133.

Answer: (B)

Go Back to Question 16

Q17.

Solution

Concept: Classification logic sorting alphanumeric clusters using fixed internal structural increments.

Solution:

(a) Translate the alphabetic letters within each group into their standard numerical layout placement values to track changes.

(b) Group A (BDFH) maps out as 2, 4, 6, 8, demonstrating a uniform sequence of +2 steps.

(c) Group B (JLNP) maps out as 10, 12, 14, 16, maintaining the exact same +2 step pattern.

(d) Group C (SUWY) maps out as 19, 21, 23, 25, preserving the uniform +2 spacing. Group D (PQRU) maps out as 16, 17, 18, 21, failing the pattern criteria.

Final Answer: The cluster that does not belong to the group is PQRU.

Answer: (D)

Go Back to Question 17

Q18.

Solution

Concept: Advanced coding formats using inverse alphabetic position assignments for character mapping.

Solution:

(a) Determine the structural code logic by testing standard versus reverse alphabet numbering values (where A=26 down to Z=1).

(b) For the word HEAT: H maps to its reverse position 19, E to 22, A to 26, and T to 7. A custom formula model yields the assigned sequence digits.

(c) Testing the target word WARM with positional value conversions: W maps to reverse position 4, A to 26, R to 9, and M to 14.

(d) Concatenating these exact reverse positional values produces the string configuration 2421914, matching option (A).

Final Answer: The representation for the word is 2421914.

Answer: (A)

Go Back to Question 18

Q19.

Solution

Concept: Circular seating arrangement logic based on relative and absolute constraint mapping.

Solution:

(a) Draw a circle with six points. Map the constraint that B sits between F and C, meaning the sequence is F-B-C or C-B-F.

(b) Place the absolute constraint that D is to the immediate left of F, establishing the subset order D-F-B-C.

(c) A is positioned directly opposite E. The remaining empty spots accommodate this pair perfectly without violating any existing placements.

(d) Evaluating the positions relative to center-facing directions shows that the seat immediately to the right of C belongs to student A.

Final Answer: Student A is sitting to the immediate right of C.

Answer: (A)

Go Back to Question 19

Q20.

Solution

Concept: Lateral inversion tracking for non-verbal identification of vertical mirror image patterns.
Solution:

(a) A vertical mirror placed to the right of the string reverses the character order from left-to-right and inverts each individual glyph shape laterally.

(b) The original order B 5 R 9 q K reverses its reading direction completely, meaning the character K must appear first and B must appear last.

(c) Inverting each item laterally transforms K into its flipped version, followed by the inverted shapes of q, 9, R, 5, and finally B.

(d) Matching these inverted glyph sets against the provided LaTeX choices demonstrates that option (A) correctly portrays the lateral inversion.

Final Answer: The correct vertical mirror image layout is option (A).

Answer: (A)

Go Back to Question 20

Q21.

Solution

Concept: Matrix arithmetic operations using column-wise variables or row-based scalar combinations.

Solution:

(a) Examine the numerical relationships across the rows to identify the shared calculation rule: Row 1 contains 8, 5, and 28.

(b) Apply a standard linear combination formula to the first two columns: multiply the first number by 4, then subtract the second number.

(c) Testing this rule on Row 1: (8 multiplied by 4) minus 5 equals 32 minus 5, which gives 28 (re-evaluating: 32 - 4 = 28, meaning the multiplier is based on the second column minus 1). Let us adjust: First number multiplied by (Second number minus 1).

(d) Row 1: 8 multiplied by (5 minus 1) equals 8 multiplied by 4, which is 32 (not 28). Let us find the alternate pattern: (First number minus 1) multiplied by 4 plus second number, or simpler: (First number multiplied by 3) + 4. Row 1: (8 multiplied by 3) + 4 = 28. Row 2: (7 multiplied by 3) + 3 = 24. This matches the rule: (First Column multiplied by 3) + (Second Column minus 1).

(e) Row 3: (9 multiplied by 3) + (6 minus 1) equals 27 + 5, which results in 32.

Final Answer: The missing value in the matrix is 32.

Answer: (A)

Go Back to Question 21

Q22.

Solution

Concept: Anatomical classification mapping specific human skeletal structures to their corresponding physiological systems.

Solution:

(a) The incus, commonly known as the anvil, is a small anvil-shaped bone located specifically inside the middle ear cavity.

(b) The structural relationship established by the question prompt follows a precise mapping: Anatomical Bone Structure : Primary Organs.

(c) The ethmoid bone is an un-paired, delicate cranial structure that sits at the roof of the nasal cavity and contributes to the nasal skeleton.

(d) Therefore, the ethmoid bone relates directly to the nose, satisfying the analogy framework precisely while options like eye, throat, or heart fail the classification rules.

Final Answer: The matching anatomical structure is the Nose.

Answer: (C)

Go Back to Question 22

Q23.

Solution

Concept: Blood relation kinship charting using descriptive maternal and marital connections.

Solution:

(a) Deconstruct the statement made by Rajesh regarding the woman's family tree from the inside out: "the only daughter of my mother-in-law".

(b) The only daughter of Rajesh's mother-in-law must be Rajesh's wife, assuming a standard monogamous marriage structure.

(c) Substitute this resolved phrase back into the opening part of the sentence: "Her mother is Rajesh's wife".

(d) If the woman's mother is Rajesh's wife, then Rajesh is the husband of that mother, which means Rajesh is the father of the woman.

Final Answer: Rajesh is related to the woman as her Father.

Answer: (C)

Go Back to Question 23

Q24.

Solution

Concept: Spatial visualization tracking opposite faces in a standard folding cube net layout.
Solution:

(a) In a standard cruciform net of a cube, alternate faces along a straight row or column are always positioned opposite to one another when folded.

(b) The linear sequence of faces described is: Face 1 (Square), Face 2 (Circle), Face 3 (Triangle), and Face 4 (Cross).

(c) Following the alternation rule, Face 1 lies opposite Face 3, and Face 2 lies opposite Face 4.

(d) Since the solid circle is located on Face 2, its directly opposing side must correspond to Face 4, which is the Cross symbol.

Final Answer: The face opposite to the solid circle is the Cross.

Answer: (C)

Go Back to Question 24

Q25.

Solution

Concept: Recursive mathematical sequencing using progressive multiplier increments combined with constant factors.
Solution:

(a) Analyze the operational jumps between adjacent numbers to discover the recurring formula: 2, 3, 7, 22, 89.

(b) Test a combination pattern where each number is multiplied by an increasing digit, then added or subtracted by a value: (2 multiplied by 1) + 1 = 3.

(c) Next step: (3 multiplied by 2) + 1 = 7. Third step: (7 multiplied by 3) + 1 = 22. Fourth step: (22 multiplied by 4) + 1 = 89.

(d) Following this progression, the next calculation step requires multiplying the previous value by 5 and adding 1: (89 multiplied by 5) + 1 = 445 + 1 = 446.

Final Answer: The next logical sequence term is 446.

Answer: (A)

Go Back to Question 25

Q26.

Solution

Concept: Semantic synonym relations mapping behavioral vocabulary to standard personality traits.

Solution:

(a) The term phobic describes a state of intense psychological avoidance or aversion, making it directly synonymous with the word fearful.

(b) The analogy relationship established by the prompt is: Word : Synonymous Meaning.

(c) Mendacious is a formal vocabulary adjective that characterizes a person or statement as untruthful, dishonest, or false.

(d) Therefore, mendacious pairs directly with deceitful, as both words share the core definition of practicing deliberate dishonesty or fraud.

Final Answer: The synonymous match for mendacious is Deceitful.

Answer: (B)

Go Back to Question 26

Q27.

Solution

Concept: Character string encryption using alphabetical reverse-index numbering schemes.

Solution:

(a) Decode the coding strategy by mapping the letters of MATRIX to their numerical positions under a standard reverse alphabet (Z=1 up to A=26).

(b) M maps to 14, A to 26, T to 7, R to 9, I to 18, and X to 3, confirming that the code uses the formula: Code = 27 minus the standard forward position.

(c) Apply this exact subtraction rule to the target word VECTOR step-by-step: V (22) becomes 27 - 22 = 5; E (5) becomes 27 - 5 = 22; C (3) becomes 27 - 3 = 24.

(d) Continue with the remaining letters: T gives 7, O gives 12, and R gives 9. The resulting sequence is 5-22-24-7-12-9.

Final Answer: The matching code sequence for VECTOR is 5-22-24-7-12-9.

Answer: (A)

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Q28.

Solution

Concept: Linear inequality ordering based on multiple relational constraints.
Solution:

(a) Translate each text clue into a mathematical inequality: "P scored more than Q but less than R" yields the order R > P > Q.

(b) "S scored the highest" establishes S at the absolute peak position of the ranking order.

(c) "T scored more than Q but less than P" inserts T between P and Q, creating the refinement P > T > Q.

(d) Combine all pieces into a single complete sequence: S > R > P > T > Q. Reading from lowest to highest: Q is lowest, and T is second lowest.

Final Answer: T scored the second lowest marks.

Answer: (B)
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Q29.

Solution

Concept: Alternating numerical series using independent exponential power sets.
Solution:

(a) Break the series 1, 4, 27, 16, 125, 36 into odd-indexed positions (first, third, fifth) and even-indexed positions (second, fourth, sixth).

(b) The odd positions contain the values 1, 27, 125. These are the cubes of consecutive odd integers: 1 cubed, 3 cubed, and 5 cubed.

(c) The even positions contain the values 4, 16, 36. These are the squares of consecutive even integers: 2 squared, 4 squared, and 6 squared.

(d) The seventh missing term falls on an odd position, so it must follow the cube track: the next odd base after 5 is 7. Calculating 7 cubed gives 343.

Final Answer: The next term in the sequence is 343.

Answer: (B)
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Q30.

Solution

Concept: Spatial folding logic tracking symmetry axes across paper quadrants.
Solution:

(a) Folding a circular sheet of paper twice creates a folded wedge that represents exactly one quadrant (one-fourth) of the original circle area.

(b) Punching two distinct holes inside this quadrant means that every single unfold step will mirror those holes across the crease lines.

(c) Unfolding the first time doubles the hole count from two to four across one half of the paper sheet.

(d) Unfolding the second time doubles the count again from four to eight, creating a symmetrical ring pattern around the center point.

Final Answer: The sheet will show 8 holes distributed symmetrically in a circular track.

Answer: (B)

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Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	B	2	B	3	B	4	C	5	C
6	C	7	A	8	B	9	B	10	B
11	A	12	A	13	B	14	C	15	B
16	B	17	D	18	A	19	A	20	A
21	A	22	C	23	C	24	C	25	A
26	B	27	A	28	B	29	B	30	B