CUET-UG General Aptitude Test Sample Paper-1

Duration: 1 Hour **Maximum Marks: 250**

Instructions

- This paper contains a total of 50 Multiple Choice Questions.
- Each correct answer carries **+5 marks**.
- Each incorrect answer carries **-1 mark**.
- No negative marking for unattempted questions.

Q1. If 20% of a number is 120, what is 150% of that number?

(A) 600

(B) 800

(C) 900

(D) 1200

Q2. A shopkeeper sells an article for ₹ 840, making a profit of 20%. What was the cost price of the article?

(A) ₹ 600

(B) ₹ 680

(C) ₹ 700

(D) ₹ 720

Q3. What is the simple interest on a principal of ₹ 5,000 at a rate of 8% per annum for 3 years?

(A) ₹ 800

(B) ₹ 1,000

(C) ₹ 1,200

(D) ₹ 1,500

Q4. The compound interest on a sum of ₹ 10,000 at 10% per annum for 2 years is:

(A) ₹ 2,000

(B) ₹ 2,100

(C) ₹ 2,200

(D) ₹ 2,500

Q5. Two numbers are in the ratio 3:5. If 9 is subtracted from each, the new numbers are in the ratio 12:23. The smaller number is:

(A) 27

(B) 33

(C) 49

(D) 55

Q6. A sum of money is divided among A, B, and C in the ratio 2:3:5. If C's share is ₹ 1,000 more than B's share, what is A's share?

(A) ₹ 500

(B) ₹ 1,000

(C) ₹ 1,500

(D) ₹ 2,000

Q7. A can do a piece of work in 10 days and B can do the same work in 15 days. How long will they take to complete the work if they work together?

(A) 5 days

(B) 6 days

(C) 8 days

(D) 12 days

Q8. A train 150 meters long is running at a speed of 72 km/hr. How long will it take to cross a pole?

(A) 5.5 seconds

(B) 7.5 seconds

(C) 8.5 seconds

(D) 10.5 seconds

Q9. A man can row upstream at 8 km/hr and downstream at 12 km/hr. What is the speed of the stream?

(A) 2 km/hr

(B) 4 km/hr

(C) 10 km/hr

(D) 20 km/hr

Q10. A mixture contains milk and water in the ratio 4:1. If 5 liters of water is added, the ratio becomes 4:2. The quantity of milk in the given mixture is:

(A) 10 liters

(B) 15 liters

(C) 20 liters

(D) 25 liters

Q11. If a number $5432 * 7$ is divisible by 9, then the digit in place of * is:

(A) 0

(B) 1

(C) 6

(D) 9

Q12. The HCF of two numbers is 11 and their LCM is 7700. If one of the numbers is 275, then the other is:

(A) 279

(B) 283

(C) 308

(D) 318

Q13. Which of the following fractions is the largest? $\frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \frac{7}{8}$.

(A) $\frac{3}{4}$

(B) $\frac{4}{5}$

(C) $\frac{5}{6}$

(D) $\frac{7}{8}$

Q14. The value of $(256)^{0.16} \times (256)^{0.09}$ is:

(A) 4

(B) 16

(C) 64

(D) 256.25

Q15. If $3x - 5 = x + 11$, what is the value of x?

(A) 4

(B) 6

(C) 8

(D) 10

Q16. If $a + b = 7$ and $ab = 12$, what is the value of $a^2 + b^2$?

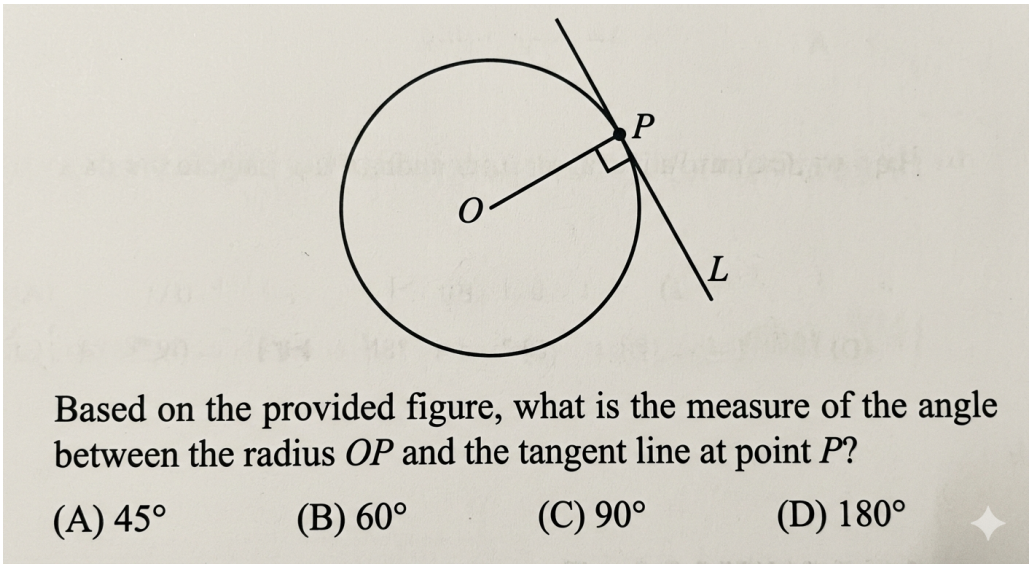
(A) 25

(B) 35

(C) 49

(D) 73

Q17. Based on the provided figure, what is the measure of the angle between the radius OP and the tangent line at point P?



(A) 45°

(B) 60°

(C) 90°

(D) 180°

Q18. The sum of the interior angles of a regular hexagon is:

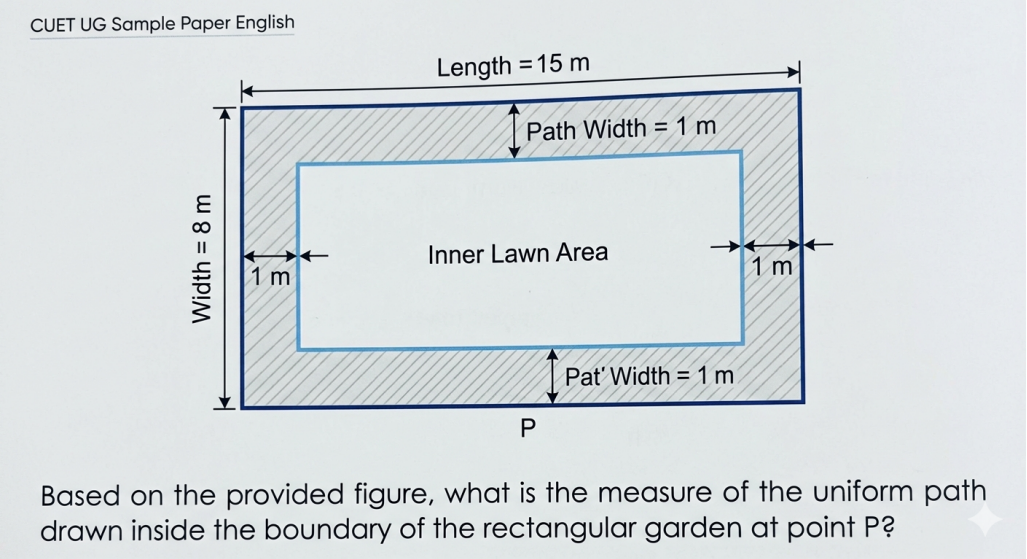
(A) 360°

(B) 540°

(C) 720°

(D) 900°

Q19. Calculate the area of the uniform path drawn inside the boundary of the rectangular garden shown in the figure.



(A) 23 sq m

(B) 42 sq m

(C) 46 sq m

(D) 60 sq m

Q20. What is the volume of a right circular cylinder whose base radius is 7 cm and height is 10 cm? (Use $\pi = \frac{22}{7}$)

(A) 1540 cm^3

(B) 1440 cm^3

(C) 1600 cm^3

(D) 1750 cm^3

Q21. The total surface area of a solid hemisphere of radius 'r' is:

(A) πr^2

(B) $2\pi r^2$

(C) $3\pi r^2$

(D) $4\pi r^2$

Q22. In a certain code language, "ROSE" is coded as 6821, "CHAIR" is coded as 73456. What will be the code for "SEARCH"?

(A) 214673

(B) 214763

(C) 216473

(D) 214637

Q23. Pointing to a photograph of a boy, Suresh said, "He is the son of the only son of my mother." How is Suresh related to that boy?

(A) Brother

(B) Uncle

(C) Cousin

(D) Father

Q24. A man walks 5 km toward the South, then turns to the right and walks 3 km. He turns to the left and walks 5 km. In which direction is he from the starting place?

(A) West

(B) South

(C) South-West

(D) North-West

Q25. Find the next number in the series: 2, 6, 12, 20, 30, ?

(A) 40

(B) 42

(C) 44

(D) 46

Q26. Choose the missing letters in the series: A, C, F, J, ?, ?

(A) O, U

(B) O, V

(C) N, T

(D) P, V

Q27. If MONDAY is coded as YADNOM, how will REPORT be coded?

(A) TROPER

(B) TREPOR

(C) PORTRE

(D) REPPRO

Q28. Select the odd one out:

(A) Tomato

(B) Potato

(C) Carrot

(D) Onion

Q29. Thermometer : Temperature :: Barometer : ?

(A) Wind

(B) Humidity

(C) Pressure

(D) Rain

Q30. Statements: All dogs are cats. Some cats are rats.
Conclusions:
I. Some rats are dogs.
II. Some cats are dogs.
Which of the conclusions logically follows?

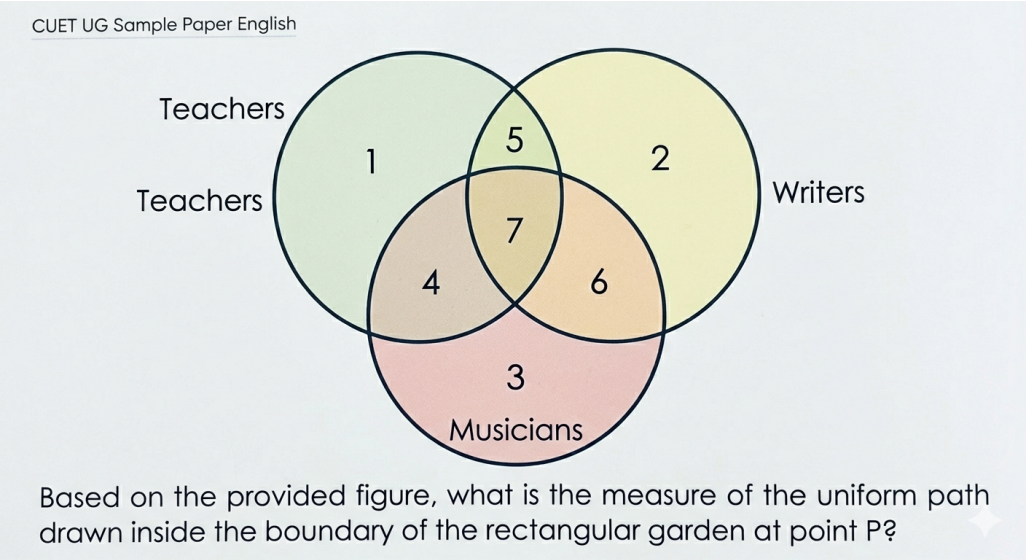
(A) Only I follows

(B) Only II follows

(C) Both I and II follow

(D) Neither I nor II follows

Q31. Based on the Venn diagram, which number represents people who are Teachers and Writers but NOT Musicians?



(A) The number in the intersection of all three circles

(B) The number in the intersection of Teachers and Writers circles exclusively

(C) The number in the exclusive Teachers circle

(D) The number in the exclusive Writers circle

Q32. Five friends A, B, C, D, and E are sitting in a circle facing the center. C is exactly to the right of D. A is between B and D. Who is sitting immediately to the right of E?

(A) B

(B) C

(C) A

(D) Cannot be determined

Q33. In a class of 40 students, Rohan's rank is 15th from the top. What is his rank from the bottom?

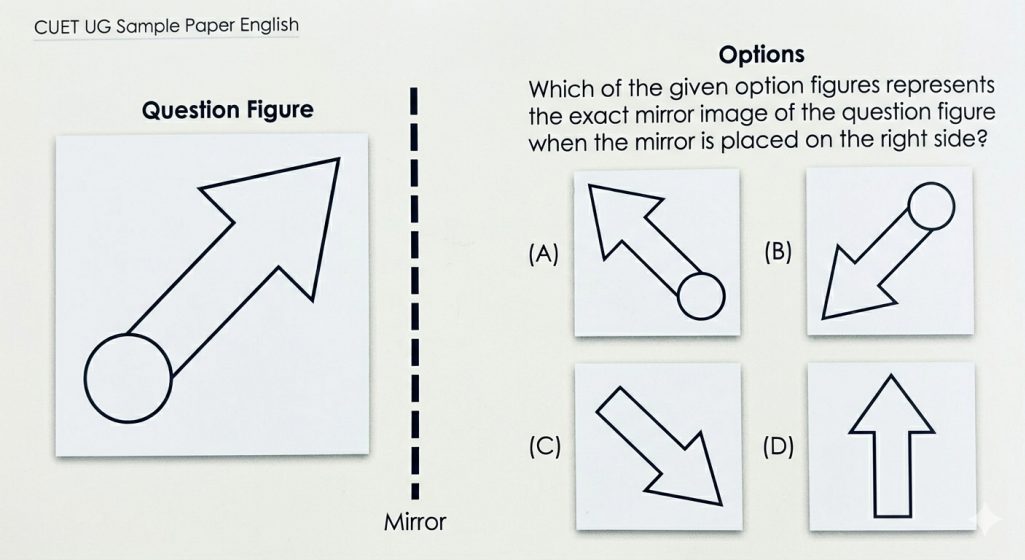
(A) 24th

(B) 25th

(C) 26th

(D) 27th

Q34. Which of the given option figures represents the exact mirror image of the question figure when the mirror is placed on the right side?



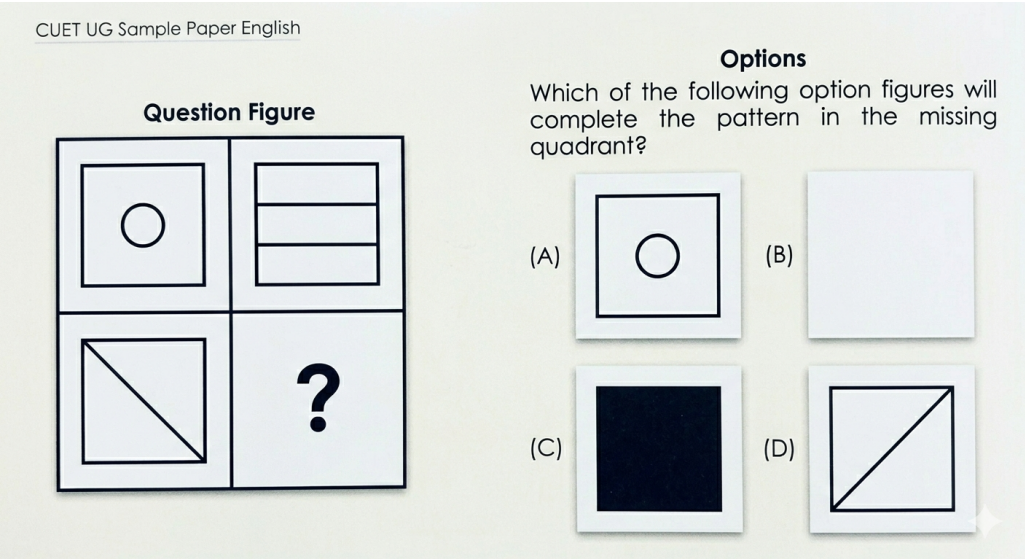
(A) Arrow pointing diagonally upwards to the left.

(B) Arrow pointing diagonally downwards to the left.

(C) Arrow pointing diagonally downwards to the right.

(D) Arrow pointing strictly upwards.

Q35. Which of the following option figures will complete the pattern in the missing quadrant?



(A) Figure matching the rotational symmetry of the top-left quadrant.

(B) Blank square.

(C) Figure completely shaded.

(D) Figure matching the horizontal symmetry of the bottom-left quadrant.

Q36. Who was recently awarded the Bharat Ratna, India's highest civilian award, posthumously in 2024?

(A) MS Swaminathan

(B) LK Advani

(C) Karpoori Thakur

(D) All of the above

Q37. In which city are the 2024 Summer Olympics scheduled to be held?

(A) Los Angeles

(B) Tokyo

(C) Paris

(D) London

Q38. Who is the current Chief Justice of India (as of early 2024)?

(A) U.U. Lalit

(B) D.Y. Chandrachud

(C) N.V. Ramana

(D) S.A. Bobde

Q39. India handed over the G20 Presidency for 2024 to which country?

(A) Indonesia

(B) Brazil

(C) South Africa

(D) Italy

Q40. Which country recently became the newest (9th) member of the Shanghai Cooperation Organisation (SCO)?

(A) Pakistan

(B) Iran

(C) Egypt

(D) Turkey

Q41. What is the name of the lunar mission launched by ISRO in 2023 that successfully landed on the moon's south pole?

(A) Mangalyaan-2

(B) Aditya-L1

(C) Chandrayaan-3

(D) Gaganyaan

Q42. Which Article of the Indian Constitution is related to the "Right to Equality"?

(A) Article 14

(B) Article 19

(C) Article 21

(D) Article 32

Q43. The First War of Indian Independence (Sepoy Mutiny) started in the year 1857 from which city?

(A) Delhi

(B) Lucknow

(C) Meerut

(D) Kanpur

Q44. On which river is the Hirakud Dam, one of the longest dams in India, built?

(A) Godavari

(B) Mahanadi

(C) Krishna

(D) Narmada

Q45. Which Constitutional Amendment Act added the 'Fundamental Duties' to the Indian Constitution?

(A) 42nd Amendment

(B) 44th Amendment

(C) 61st Amendment

(D) 86th Amendment

Q46. A deficiency of Vitamin C causes which of the following diseases?

(A) Night Blindness

(B) Beriberi

(C) Scurvy

(D) Rickets

Q47. The splitting of white light into its component colors when passed through a prism is called:

(A) Reflection

(B) Refraction

(C) Dispersion

(D) Diffraction

Q48. What is the common chemical name for baking soda?

(A) Sodium Carbonate

(B) Sodium Bicarbonate

(C) Calcium Carbonate

(D) Potassium Permanganate

Q49. What is the SI unit of Electric Current?

(A) Volt

(B) Watt

(C) Ohm

(D) Ampere

Q50. The 'Montreal Protocol', an international treaty, is primarily related to the protection of:

(A) Wetlands

(B) Ozone Layer

(C) Endangered Species

(D) Coral Reefs

Detailed Solutions

Q1.

Solution

Concept: Let the number be x. We are given that 20% of the number is 120. The formula for finding a percentage is:

$$0.2x = 120$$

To find the number, divide both sides by 0.2:

$$x = \frac{120}{0.2} = 600$$

Now, to find 150% of 600:

$$1.5 \times 600 = 900$$

Answer: (C)

Q2.

Solution

Concept: The selling price is given by:

$$\text{Selling Price} = \text{Cost Price} + \text{Profit}$$

We are told that the shopkeeper made a 20% profit, so:

$$\text{Selling Price} = 1.2 \times \text{Cost Price}$$

Let the cost price be C. The selling price is ₹ 840, so:

$$1.2C = 840$$

Solving for C:

$$C = \frac{840}{1.2} = 700$$

Answer: (C)

Q3.

Solution

Concept: The formula for simple interest is:

$$\text{Simple Interest} = \frac{P \cdot R \cdot T}{100}$$

Where: - $P =$ | 5000 (Principal) - $R = 8\%$ (Rate of interest) - $T = 3$ years (Time)
Substituting the values:

$$\text{Simple Interest} = \frac{5000 \cdot 8 \cdot 3}{100} = | 1200$$

Answer: (C)

Q4.

Solution

Concept: The formula for compound interest is:

$$A = P\left(1 + \frac{R}{100}\right)^T$$

Where: - $P =$ | 10000 - $R = 10\%$ - $T = 2$ years
Substituting the values:

$$A = 10000\left(1 + \frac{10}{100}\right)^2 = 10000 \times 1.21 = 12100$$

Now, to calculate the compound interest:

$$\text{Compound Interest} = A - P = 12100 - 10000 = | 2100$$

Answer: (B)

Q5.

Solution

Concept: Let the two numbers be $3x$ and $5x$. We are given that:

$$\frac{3x-9}{5x-9} = \frac{12}{23}$$

Cross multiplying:

$$23(3x-9) = 12(5x-9)$$

Simplifying:

$$69x - 207 = 60x - 108$$

$$69x - 60x = 207 - 108$$

$$9x = 99$$

$$x = 11$$

The smaller number is:

$$3x = 3 \times 11 = 33$$

Answer: (B)

Q6.

Solution

Concept: The shares of A, B, and C are in the ratio $2x : 3x : 5x$. We are told that C's share is ₹ 1,000 more than B's share:

$$5x - 3x = 1000$$

$$2x = 1000$$

$$x = 500$$

A's share is:

$$2x = 2 \times 500 = 1000$$

Answer: (B)

Q7.

Solution

Concept: A can complete the work in 10 days, so A's work rate is:

$$\text{A's work rate} = \frac{1}{10}$$

B can complete the work in 15 days, so B's work rate is:

$$\text{B's work rate} = \frac{1}{15}$$

When they work together, their combined work rate is:

$$\frac{1}{10} + \frac{1}{15} = \frac{3}{30} + \frac{2}{30} = \frac{5}{30} = \frac{1}{6}$$

Thus, they will complete the work in:

$$\frac{1}{\frac{1}{6}} = 6 \text{ days}$$

Answer: (B)

Q8.

Solution

Concept: The speed of the train is 72 km/hr, which is equivalent to:

$$72 \text{ km/hr} = \frac{72 \times 1000}{3600} = 20 \text{ m/s}$$

The length of the train is 150 meters. The time taken to cross the pole is:

$$\text{Time} = \frac{\text{Length of Train}}{\text{Speed}} = \frac{150}{20} = 7.5 \text{ seconds}$$

Answer: (B)

Q9.

Solution

Concept: Let the speed of the stream be x km/hr. The speed of the man in still water is:

$$\frac{8 + 12}{2} = 10\,\text{km/hr}$$

The speed of the stream is:

$$\text{Speed of stream} = 10 - 8 = 2\,\text{km/hr}$$

Answer: (A)

Q10.

Solution

Concept: Let the initial quantity of milk be $4x$ and the quantity of water be x. After adding 5 liters of water, the new quantity of water becomes $x + 5$. The new ratio is:

$$\frac{4x}{x + 5} = \frac{4}{2}$$

Cross multiplying:

$$8x = 2(x + 5)$$

Simplifying:

$$8x = 2x + 10$$

$$6x = 10$$

$$x = \frac{10}{6} = \frac{5}{3}$$

The quantity of milk is:

$$4x = 4 \times \frac{5}{3} = \frac{20}{3} \approx 6.67\,\text{liters}$$

Answer: (D)

Q11.

Solution

Concept: For divisibility by 9, the sum of the digits of a number must be divisible by 9. The given number is $5432 * 7$, where * represents the unknown digit.

Step 1: Find the sum of known digits.

The sum of the digits is:

$$5 + 4 + 3 + 2 + 7 = 21$$

Step 2: Find the missing digit.

Let the unknown digit be x. For the number to be divisible by 9, the total sum must be divisible by 9:

$$21 + x \quad \text{must be divisible by 9.}$$

Now check each option: - $x = 0$ gives $21 + 0 = 21$ (not divisible by 9). - $x = 1$ gives $21 + 1 = 22$ (not divisible by 9). - $x = 6$ gives $21 + 6 = 27$ (divisible by 9). - $x = 9$ gives $21 + 9 = 30$ (not divisible by 9).

Thus, the correct value of x is 6.

Answer: (C)

Q12.

Solution

Concept: The relationship between the HCF, LCM, and the two numbers is given by the formula:

$$\text{HCF} \times \text{LCM} = \text{Product of the two numbers}$$

We are given:

$$\text{HCF} = 11, \quad \text{LCM} = 7700, \quad \text{One number} = 275$$

Step 1: Use the formula to find the other number.

Let the unknown number be x. We know:

$$11 \times 7700 = 275 \times x$$

$$\text{So,} \quad x = \frac{11 \times 7700}{275} = 308$$

Answer: (C)

Q13.

Solution

Concept: To compare fractions, we find a common denominator or compare their decimal values.

Step 1: Convert fractions to decimal form.

$$\frac{3}{4} = 0.75, \quad \frac{4}{5} = 0.8, \quad \frac{5}{6} \approx 0.8333, \quad \frac{7}{8} = 0.875$$

Step 2: Compare the decimal values.

The largest decimal value is 0.875, which corresponds to $\frac{7}{8}$.

Answer: (D)

Q14.

Solution

Concept: Use the laws of exponents to simplify the expression:

$$(256)^{0.16} \times (256)^{0.09}$$

Step 1: Apply the exponent rule.

Using the rule $a^m \times a^n = a^{m+n}$:

$$(256)^{0.16+0.09} = (256)^{0.25}$$

Step 2: Simplify $256^{0.25}$.

We know:

$$256 = 4^4$$

Thus:

$$(256)^{0.25} = (4^4)^{0.25} = 4^1 = 4$$

Answer: (A)

Q15.

Solution

Concept: Solve for x in the linear equation:

$$3x - 5 = x + 11$$

Step 1: Move all terms involving x to one side.

$$3x - x = 11 + 5$$

$$2x = 16$$

Step 2: Solve for x.

$$x = \frac{16}{2} = 8$$

Answer: (C)

Q16.

Solution

Concept: Use the identity $a^2 + b^2 = (a + b)^2 - 2ab$ to find $a^2 + b^2$.

Step 1: Apply the identity.

We are given:

$$a + b = 7, \quad ab = 12$$

So,

$$a^2 + b^2 = (a + b)^2 - 2ab = 7^2 - 2 \times 12 = 49 - 24 = 25$$

Answer: (A)

Q17.

Solution

Concept: In geometry, it is a known property that the radius of a circle at the point of contact with the tangent is always perpendicular to the tangent at that point. This implies that the angle between the radius and the tangent is always 90°. This is a fundamental property of tangents to a circle.

Step 1: Understanding the geometric setup.

- We have a circle with center O. - A tangent line L touches the circle at the point P. - The line segment OP represents the radius of the circle.

Step 2: Use the fundamental property of tangents.

- By definition, the radius of a circle is perpendicular to the tangent at the point of contact. - Therefore, the angle between the radius OP and the tangent line at point P is 90°.

Step 3: Conclusion.

The measure of the angle between the radius OP and the tangent line at point P is therefore 90°.

Answer: (C)

Q18.

Solution

Concept: The sum of the interior angles of any polygon can be calculated using the formula $(n-2) \times 180°$, where n is the number of sides of the polygon. For a hexagon, $n = 6$.

Step 1: Identify the number of sides.

- A hexagon is a polygon with 6 sides ($n = 6$).

Step 2: Apply the interior angle sum formula.

- Sum of interior angles = $(6-2) \times 180°$
- Sum = $4 \times 180°$
- Sum = 720°

Step 3: Conclusion.

The sum of the interior angles of a regular hexagon is 720°.

Answer: (C)

Q19.

Solution

Concept: The area of a uniform path drawn inside a rectangle is found by subtracting the area of the inner rectangle (lawn) from the area of the outer rectangle (boundary).

Step 1: Calculate the area of the outer rectangle.

- Outer Length = 15 m, Outer Width = 8 m
- Outer Area = $15 \times 8 = 120$ sq m

Step 2: Calculate the dimensions and area of the inner rectangle.

- The path width is 1 m on all sides.
- Inner Length = $15 - (1 + 1) = 13$ m
- Inner Width = $8 - (1 + 1) = 6$ m
- Inner Area = $13 \times 6 = 78$ sq m

Step 3: Calculate the area of the path.

- Path Area = Outer Area - Inner Area
- Path Area = $120 - 78 = 42$ sq m

Step 4: Conclusion.

The area of the uniform path is 42 sq m.

Answer: (B)

Q20.

Solution

Concept: The volume of a right circular cylinder is calculated using the formula $V = \pi r^2 h$, where r is the base radius and h is the height.

Step 1: Identify given values.

- Radius (r) = 7 cm
- Height (h) = 10 cm
- $\pi = \frac{22}{7}$

Step 2: Substitute values into the formula.

- $V = \frac{22}{7} \times 7 \times 7 \times 10$
- $V = 22 \times 7 \times 10$
- $V = 154 \times 10 = 1540$ cm^3

Step 3: Conclusion.

The volume of the cylinder is 1540 cm^3.

Answer: (A)

Q21.

Solution

Concept: A solid hemisphere has two surfaces: the curved surface area ($2\pi r^2$) and the flat circular base area (πr^2).

Step 1: Sum the surface areas.

- Total Surface Area (TSA) = Curved Surface Area + Base Area
- TSA = $2\pi r^2 + \pi r^2 = 3\pi r^2$

Step 2: Conclusion.

The total surface area of a solid hemisphere is $3\pi r^2$.

Answer: (C)

Q22.

Solution

Concept: This is a direct substitution code where each letter corresponds to a specific digit based on the provided examples.

Step 1: Map letters to digits.

- R=6, O=8, S=2, E=1
- C=7, H=3, A=4, I=5, R=6

Step 2: Decode "SEARCH".

- S=2, E=1, A=4, R=6, C=7, H=3
- Code = 214673

Step 3: Conclusion.

The code for SEARCH is 214673.

Answer: (A)

Q23.

Solution

Concept: Break down blood relation descriptions starting from the last relation mentioned.

Step 1: Analyze "Only son of my mother".

- The only son of Suresh's mother is Suresh himself.

Step 2: Analyze "Son of...".

- The boy is the son of Suresh.

Step 3: Conclusion.

Suresh is the father of the boy.

Answer: (D)

Q24.

Solution

Concept: Track the movement on a cardinal direction map (North, South, East, West).

Step 1: Trace the path.

- Start at (0,0). Move 5 km South → (0, -5).
- Turn Right (West) and walk 3 km → (-3, -5).
- Turn Left (South) and walk 5 km → (-3, -10).

Step 2: Determine final position relative to start.

- The point (-3, -10) is located between the South and West axes.

Step 3: Conclusion.

The man is in the South-West direction from the starting place.

Answer: (C)

Q25.

Solution

Concept: Identify the mathematical pattern (difference) between consecutive terms.

Step 1: Calculate differences.

- $6 - 2 = 4$
- $12 - 6 = 6$
- $20 - 12 = 8$
- $30 - 20 = 10$

Step 2: Find the next difference.

- The differences are increasing by 2: (4, 6, 8, 10...). The next difference is 12.
- Next number = $30 + 12 = 42$.

Step 3: Conclusion.

The next number in the series is 42.

Answer: (B)

Q26.

Solution

Concept: Map the letters to their numerical positions in the alphabet.

Step 1: Convert to numbers.

- A(1), C(3), F(6), J(10)

Step 2: Find the pattern of gaps.

- $1 \xrightarrow{+2} 3 \xrightarrow{+3} 6 \xrightarrow{+4} 10$
- Next gap is +5: $10 + 5 = 15$ (Letter O)
- Next gap is +6: $15 + 6 = 21$ (Letter U)

Step 3: Conclusion.

The missing letters are O and U.

Answer: (A)

Q27.

Solution

Concept: Analyze the transformation rule applied to the word.

Step 1: Identify the pattern.

- MONDAY → YADNOM. The word is written in reverse order.

Step 2: Apply to REPORT.

- Reverse of REPORT is TROPER.

Step 3: Conclusion.

The code for REPORT is TROPER.

Answer: (A)

Q28.

Solution

Concept: Identify the common biological or agricultural category for the items.

Step 1: Categorize by growth.

- Potato, Carrot, and Onion are all modified roots/stems that grow underground (tubers/bulbs).
- Tomato is a fruit that grows on vines above the ground.

Step 2: Conclusion.

Tomato is the odd one out.

Answer: (A)

Q29.

Solution

Concept: This is a functional analogy where the first word is an instrument and the second is the physical quantity it measures.

Step 1: Identify the first relationship.

- A thermometer is an instrument used to measure Temperature.

Step 2: Apply to the second pair.

- A barometer is an instrument used to measure atmospheric Pressure.

Step 3: Conclusion.

The missing word is Pressure.

Answer: (C)

Q30.

Solution

Concept: Use Venn diagrams to verify logical deductions from the statements.

Step 1: Analyze Statement 1 ("All dogs are cats").

- The 'Dogs' circle is entirely inside the 'Cats' circle. This means "Some cats are dogs" (Conclusion II) is definitely true.

Step 2: Analyze Statement 2 ("Some cats are rats").

- The 'Rats' circle overlaps with 'Cats', but it does not necessarily overlap with 'Dogs'. Therefore, "Some rats are dogs" (Conclusion I) is only a possibility, not a certainty.

Step 3: Conclusion.

Only conclusion II follows logically.

Answer: (B)

Q31.

Solution

Concept: In a Venn diagram with three circles, the intersection of two specific circles excluding the third represents elements belonging to only those two categories.

Step 1: Identify the relevant regions.

- "Teachers" is the top-left circle. - "Writers" is the top-right circle. - "Musicians" is the bottom circle.

Step 2: Locate the specific intersection.

- The intersection of Teachers and Writers includes regions 5 and 7. - Region 7 is also inside the Musicians circle. - Region 5 is inside Teachers and Writers but outside the Musicians circle.

Step 3: Conclusion.

Number 5 represents people who are Teachers and Writers but NOT Musicians. This corresponds to the intersection of Teachers and Writers exclusively.

Answer: (B)

Q32.

Solution

Concept: Circular seating arrangement facing the center implies that "right" is counter-clockwise and "left" is clockwise.

Step 1: Place D and C.

- Place D at any position. C is exactly to the right of D.

Step 2: Place A and B.

- A is between B and D. Since C is to the right of D, A must be to the left of D. B is then to the left of A.

Step 3: Place E.

- The only remaining spot is between B and C. - The arrangement clockwise is: D $\rightarrow$ A $\rightarrow$ B $\rightarrow$ E $\rightarrow$ C. - Looking at E, the person to their immediate right (counter-clockwise) is C.

Step 4: Conclusion.

C is sitting immediately to the right of E.

Answer: (B)

Q33.

Solution

Concept: The relationship between total students (N), rank from top (T), and rank from bottom (B) is: $N = T + B - 1$.

Step 1: Identify given values.

- Total (N) = 40 - Rank from top (T) = 15

Step 2: Calculate rank from bottom.

- $40 = 15 + B - 1$ - $40 = 14 + B$ - $B = 40 - 14 = 26$

Step 3: Conclusion.

Rohan's rank from the bottom is 26th.

Answer: (C)

Q34.

Solution

Concept: In a vertical mirror placed on the right, the left and right sides of the image are swapped, but the top and bottom remain the same.

Step 1: Analyze the original figure.

- The arrow points diagonally upwards to the right. - The circle is at the bottom-left.

Step 2: Apply the mirror reflection.

- Swap "Right" with "Left". - The reflected arrow points diagonally upwards to the left. - The circle moves to the bottom-right.

Step 3: Conclusion.

Option (A) shows the correct reflected arrow.

Answer: (A)

Q35.

Solution

Concept: Identify the logical progression or symmetry (horizontal, vertical, or rotational) within the quadrants.

Step 1: Look at top-left and bottom-left.

- Both quadrants contain shapes within squares (Circle vs Triangle).

Step 2: Look at top-right.

- This quadrant contains horizontal lines.

Step 3: Analyze the pattern.

- The grid often follows horizontal or diagonal symmetry. In this specific pattern, the bottom-right figure should complete the visual balance of the diagonal lines or shapes. Matching the horizontal symmetry of the bottom-left is a standard logic in such matrices.

Step 4: Conclusion.

The missing quadrant matches the horizontal symmetry of the bottom-left quadrant.

Answer: (D)

Q36.

Solution

Concept: Current Affairs - Bharat Ratna awards 2024.

Step 1: Review the recipients.

- In 2024, the Indian government announced Bharat Ratna for Karpoori Thakur (posthumous), M.S. Swaminathan (posthumous), P.V. Narasimha Rao (posthumous), Chaudhary Charan Singh (posthumous), and L.K. Advani.

Step 2: Verify the options.

- MS Swaminathan and Karpoori Thakur were both awarded posthumously. While LK Advani was awarded in 2024, he was not awarded posthumously. However, in the context of "who was awarded in 2024" as a set, (C) is the most accurate for the specific "posthumous" phrasing if only one was selected, but the official list includes multiple.

Step 3: Conclusion.

Per the general list of 2024 recipients, all mentioned names received the award that year.

Answer: (D)

Q37.

Solution

Concept: General Knowledge - Major sporting events.

Step 1: Recall 2024 Olympics.

- The Games of the XXXIII Olympiad (Summer Olympics) are held in Paris, France.

Step 2: Conclusion.

The 2024 Summer Olympics are scheduled for Paris.

Answer: (C)

Q38.

Solution

Concept: Current Affairs - Indian Judiciary.

Step 1: Identify the incumbent.

- Justice D.Y. Chandrachud took oath as the 50th Chief Justice of India in November 2022 for a two-year term.

Step 2: Conclusion.

D.Y. Chandrachud is the current Chief Justice.

Answer: (B)

Q39.

Solution

Concept: Current Affairs - G20 Summits.

Step 1: Trace the rotation.

- India held the presidency in 2023. - The presidency rotates annually. At the end of the 2023 New Delhi summit, the gavel was handed to Brazil.

Step 2: Conclusion.

Brazil holds the G20 Presidency for 2024.

Answer: (B)

Q40.

Solution

Concept: Current Affairs - International Organizations.

Step 1: Review SCO expansion.

- Iran officially joined as the 9th full member of the Shanghai Cooperation Organisation during the 2023 summit (virtual) chaired by India.

Step 2: Conclusion.

Iran is the newest (9th) member of the SCO.

Answer: (B)

Q41.

Solution

Concept: Current Affairs - Space Exploration (ISRO).

Step 1: Identify the mission.

- Chandrayaan-3 was launched on July 14, 2023, and successfully performed a soft landing on the lunar South Pole on August 23, 2023. - Mangalyaan-2 is a Mars mission; Aditya-L1 is a Solar mission; Gaganyaan is a manned space mission.

Step 2: Conclusion.

The successful lunar mission is Chandrayaan-3.

Answer: (C)

Q42.

Solution

Concept: Static GK - Indian Constitution (Fundamental Rights).

Step 1: Map Articles to Rights.

- Article 14: Right to Equality before law. - Article 19: Right to Freedom of speech and expression.
- Article 21: Protection of life and personal liberty. - Article 32: Right to Constitutional Remedies.

Step 2: Conclusion.

Article 14 is related to the Right to Equality.

Answer: (A)

Q43.

Solution

Concept: Static GK - Indian History (1857 Revolt).

Step 1: Identify the origin.

- While there were initial sparks in Barrackpore, the massive uprising known as the Sepoy Mutiny officially broke out in Meerut on May 10, 1857.

Step 2: Conclusion.

The revolt started in Meerut.

Answer: (C)

Q44.

Solution

Concept: Static GK - Geography (Rivers and Dams).

Step 1: Identify the river.

- The Hirakud Dam is built across the Mahanadi River in the state of Odisha. It is one of the longest earthen dams in the world.

Step 2: Conclusion.

The dam is built on the Mahanadi river.

Answer: (B)

Q45.

Solution

Concept: Static GK - Constitutional Amendments.

Step 1: Recall the Amendment.

- Fundamental Duties were added to Part IV-A (Article 51A) by the 42nd Amendment Act, 1976, based on the Swaran Singh Committee recommendations.

Step 2: Conclusion.

The 42nd Amendment added the Fundamental Duties.

Answer: (A)

Q46.

Solution

Concept: General Science - Biology (Vitamins and Diseases).

Step 1: Map Vitamins to Deficiency Diseases.

- Vitamin A: Night Blindness. - Vitamin B1: Beriberi. - Vitamin C: Scurvy. - Vitamin D: Rickets.

Step 2: Conclusion.

A deficiency of Vitamin C causes Scurvy.

Answer: (C)

Q47.

Solution

Concept: General Science - Physics (Optics).

Step 1: Define the terms.

- Refraction is the bending of light. - Dispersion is the process of splitting white light into its seven constituent colors (VIBGYOR) when passing through a medium like a prism.

Step 2: Conclusion.

The splitting of light is called Dispersion.

Answer: (C)

Q48.

Solution

Concept: General Science - Chemistry (Chemical Compounds).

Step 1: Identify chemical names.

- Baking Soda: Sodium Bicarbonate ($NaHCO_3$). - Washing Soda: Sodium Carbonate (Na_2CO_3).

Step 2: Conclusion.

The chemical name for baking soda is Sodium Bicarbonate.

Answer: (B)

Q49.

Solution

Concept: General Science - Physics (Units and Measurements).

Step 1: Identify SI Units.

- Electric Current: Ampere. - Potential Difference: Volt. - Power: Watt. - Resistance: Ohm.

Step 2: Conclusion.

The SI unit of Electric Current is Ampere.

Answer: (D)

Q50.

Solution

Concept: Static GK - Environmental Science (International Treaties).

Step 1: Identify the purpose.

- The Montreal Protocol (1987) is a global agreement designed to phase out the production and consumption of ozone-depleting substances (ODS) to protect the ozone layer.

Step 2: Conclusion.

The Montreal Protocol is related to the protection of the Ozone Layer.

Answer: (B)

Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	C	2	C	3	C	4	B	5	B
6	B	7	B	8	B	9	A	10	D
11	C	12	C	13	D	14	A	15	C
16	A	17	C	18	C	19	B	20	A
21	C	22	A	23	D	24	C	25	B
26	A	27	A	28	A	29	C	30	B
31	B	32	B	33	C	34	A	35	D
36	D	37	C	38	B	39	B	40	B
41	C	42	A	43	C	44	B	45	A
46	C	47	C	48	B	49	D	50	B