CUET-UG General Aptitude Test Sample Paper-8

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. A shopkeeper marks an article 40% above cost price and gives a discount of 20%. What is the profit %?

(A) 10%

(B) 12%

(C) 15%

(D) 20%

Q2. If ₹ 8000 becomes ₹ 9680 in 2 years at compound interest, find the rate.

(A) 8%

(B) 9%

(C) 10%

(D) 12%

Q3. A and B can complete a work in 12 days and 18 days respectively. Working together, in how many days will they complete it?

(A) 6

(B) 7.2

(C) 8

(D) 9

Q4. A train 120 m long passes a pole in 6 seconds. Find speed (km/h).

(A) 60

(B) 72

(C) 80

(D) 90

Q5. If 20% of x = 30% of y, then $x : y$ = ?

(A) 2:3

(B) 3:2

(C) 4:3

(D) 3:4

Q6. A sum doubles in 5 years at SI. In how many years will it become 4 times?

(A) 10

(B) 12

(C) 15

(D) 20

Q7. Profit on selling ₹ 1500 article is 20%. Find CP.

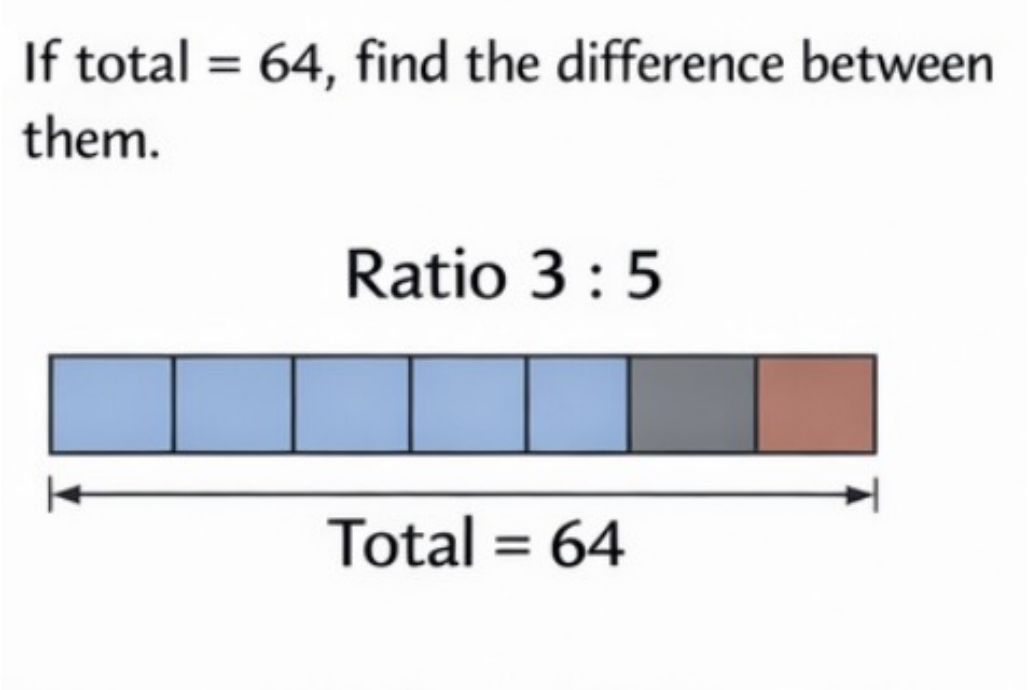
(A) 1200

(B) 1250

(C) 1300

(D) 1350

Q8. Two numbers are in ratio 3:5. If their sum is 64, find difference.



(A) 8

(B) 12

(C) 16

(D) 20

Q9. A man covers 60 km at 30 km/h and 40 km at 20 km/h. Average speed?

(A) 24

(B) 25

(C) 26

(D) 27

Q10. If 8 men do a work in 12 days, how many men needed to do it in 6 days?

(A) 12

(B) 14

(C) 16

(D) 18

Q11. Find SI on ₹ 5000 at 10% for 3 years.

(A) 1200

(B) 1400

(C) 1500

(D) 1600

Q12. If SP is ₹ 720 and loss is 10%, find CP.

(A) 800

(B) 820

(C) 850

(D) 900

Q13. HCF of 36 and 48 is:

(A) 6

(B) 12

(C) 18

(D) 24

Q14. Smallest number divisible by 8, 12, and 15:

(A) 120

(B) 180

(C) 240

(D) 360

Q15. Simplify: $\sqrt{144 \times 25}$

(A) 50

(B) 60

(C) 70

(D) 80

Q16. Find unit digit of 7^{45}

(A) 1

(B) 3

(C) 7

(D) 9

Q17. If $2^3 \times 2^5 = ?$

(A) 2^8

(B) 2^{15}

(C) 2^{10}

(D) 2^7

Q18. Solve: $2x + 5 = 17$

(A) 5

(B) 6

(C) 7

(D) 8

Q19. If $(a + b)^2 = 49$ and $ab = 12$, find $a^2 + b^2$

(A) 13

(B) 25

(C) 35

(D) 49

Q20. Sum of angles of triangle = ?

(A) 90°

(B) 120°

(C) 180°

(D) 360°

Q21. Angle in semicircle is:

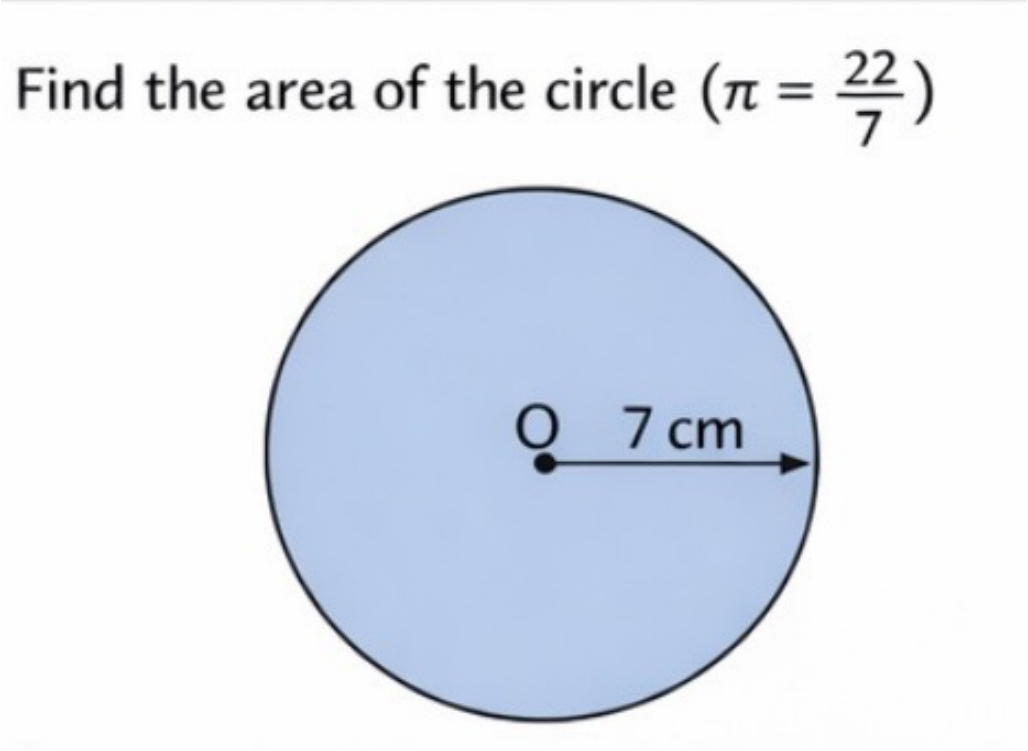
(A) 60°

(B) 90°

(C) 120°

(D) 180°

Q22. Area of circle radius 7 cm ($\pi = 22/7$):



(A) 144

(B) 154

(C) 164

(D) 174

Q23. Volume of cube side 4 cm:

(A) 16

(B) 32

(C) 64

(D) 128

Q24. CSA of cylinder = ?

(A) $2\pi r^2$

(B) $\pi r^2 h$

(C) $2\pi r h$

(D) $\pi r h^2$

Q25. Coding: CAT → DBU, DOG → ?

(A) EPH

(B) EPH

(C) EPH

(D) EPH

Q26. Series: 2, 6, 12, 20, ?

(A) 28

(B) 30

(C) 32

(D) 36

Q27. A is brother of B, B is sister of C. Relation A to C?

(A) Brother

(B) Sister

(C) Cousin

(D) Cannot say

Q28. Find missing: A, C, F, J, ?

(A) M

(B) N

(C) O

(D) P

Q29. If South-East becomes North, what is West?

(A) North-East

(B) South-West

(C) South-East

(D) North-West

Q30. Coding: 123 → BCD, then 456 → ?

(A) EFG

(B) DEF

(C) FGH

(D) GHI

Q31. Series: Z, X, U, Q, ?

(A) M

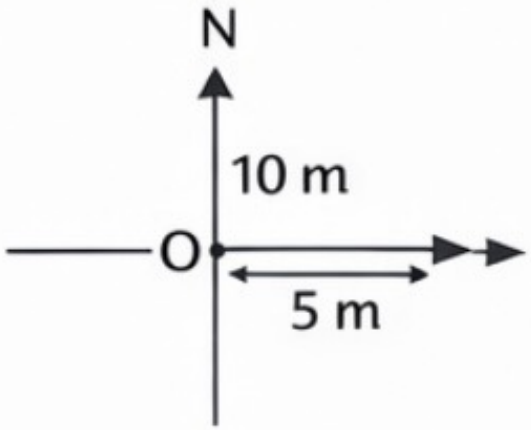
(B) N

(C) O

(D) P

Q32. Ravi walks 10 m north, then right 5 m. Direction?

Ravi walks 10 m North, then 5 m to the right.



(A) East

(B) West

(C) North

(D) South

Q33. 3, 9, 27, ?

(A) 54

(B) 81

(C) 72

(D) 90

Q34. Find odd one:

(A) Apple

(B) Mango

(C) Carrot

(D) Banana

Q35. All cats are animals. Some animals are dogs. Conclusion?

(A) All cats are dogs

(B) Some cats may be dogs

(C) No cats are dogs

(D) None

Q36. If $A > B > C > D$, who is smallest?

(A) A

(B) B

(C) C

(D) D

Q37. Venn: All roses are flowers, some flowers are red →

(A) All roses red

(B) Some roses red

(C) No roses red

(D) Cannot say

Q38. Circular seating: 6 persons facing center, who sits opposite A?

(A) Adjacent person

(B) Third person

(C) Second person

(D) Cannot say

Q39. Ranking: Ravi is 5th from top, 10th from bottom. Total students?

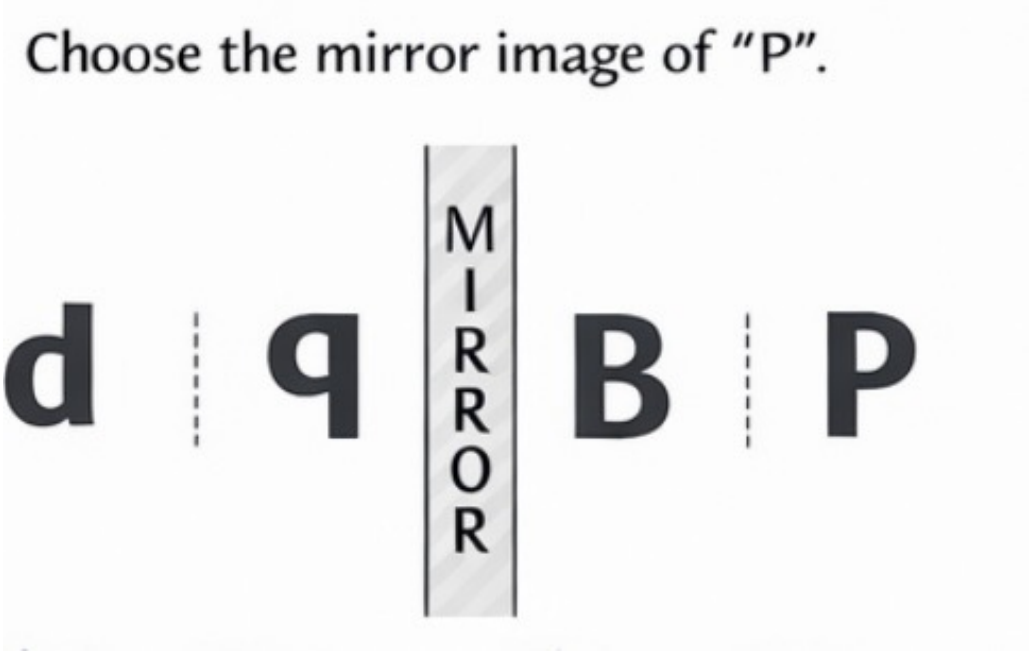
(A) 14

(B) 15

(C) 16

(D) 18

Q40. Mirror image of 'P' is:



(A) d

(B) q

(C) b

(D) p

Q41. Water image of 'M' looks like:

(A) W

(B) M

(C) E

(D) N

Q42. Pattern completion (logic-based):

(A) Rotate

(B) Flip

(C) Mirror

(D) Scale

Q43. Host of G20 Summit 2023:

(A) USA

(B) India

(C) UK

(D) Japan

Q44. ICC World Cup 2023 winner:

(A) India

(B) Australia

(C) England

(D) NZ

Q45. Nobel Peace Prize 2023 winner (organization/person):

(A) WHO

(B) UN

(C) Narges Mohammadi

(D) IMF

Q46. Current RBI Governor (2025):

(A) Urjit Patel

(B) Shaktikanta Das

(C) Raghuram Rajan

(D) None

Q47. Paris Agreement relates to:

(A) Trade

(B) Climate

(C) War

(D) Health

Q48. Olympics 2024 host city:

(A) Tokyo

(B) Paris

(C) LA

(D) London

Q49. ISRO's solar mission:

(A) Chandrayaan

(B) Aditya-L1

(C) Mangalyaan

(D) Gaganyaan

Q50. Vitamin C deficiency causes:

(A) Rickets

(B) Scurvy

(C) Night blindness

(D) Beriberi

Detailed Solutions

Q1.

Solution

Concept: This is a profit and loss problem involving marked price, discount, and selling price. To find the profit percentage, we determine the final selling price after a percentage increase (markup) and a percentage decrease (discount) are applied to the cost price.

Solution: 1. **Assume a Base Value:** Let the cost price (CP) of the article be 100.

2. **Calculate the Marked Price (MP):** The article is marked 40% above the cost price. * $MP = CP + 40\%$ of CP * $MP = 100 + 40 = 140$

3. **Calculate the Selling Price (SP):** A discount of 20% is applied to the marked price. * Discount = 20% of 140 = $\frac{20}{100} \times 140 = 28$ * $SP = MP -$ Discount $= 140 - 28 = 112$

4. **Determine the Profit Percentage:** Calculate the difference between the selling price and the cost price: * Profit $= SP - CP = 112 - 100 = 12$ * Profit % = $\frac{\text{Profit}}{CP} \times 100 = \frac{12}{100} \times 100 = 12\%$

Final Answer: 12%

Answer: (B)

Q2.

Solution

Concept: This is a compound interest problem. To find the rate of interest (r), we use the formula $A = P(1 + \frac{r}{100})^n$, where A is the final amount, P is the principal, and n is the time period in years.

Solution: 1. **Identify the Given Information:** * Principal (P) = 8000 * Amount (A) = 9680 * Time (n) = 2 years

2. **Set up the Equation:** Substitute the values into the formula: $9680 = 8000\left(1 + \frac{r}{100}\right)^2$

3. **Simplify the Expression:** Divide both sides by 8000: $\frac{9680}{8000} = \left(1 + \frac{r}{100}\right)^2$ $\frac{121}{100} = \left(1 + \frac{r}{100}\right)^2$

4. **Solve for r:** Take the square root of both sides: $\sqrt{\frac{121}{100}} = 1 + \frac{r}{100}$ $1.1 = 1 + \frac{r}{100}$ $0.1 = \frac{r}{100}$ $r = 10$

Final Answer: 10%

Answer: (C)

Q3.

Solution

Concept: This is a Time and Work problem. The total time taken by two individuals working together can be found by adding their individual work rates (work done per day) or by using the formula: Time = $\frac{xy}{x+y}$, where x and y are the days taken by each.

Solution: 1. **Identify the Work Rates:** * Work done by A in one day = $\frac{1}{12}$ * Work done by B in one day = $\frac{1}{18}$

2. **Calculate Combined Daily Work:** To add $\frac{1}{12}$ and $\frac{1}{18}$, find the Least Common Multiple (LCM) of 12 and 18, which is 36: * Combined Rate = $\frac{1}{12} + \frac{1}{18}$ * Combined Rate = $\frac{3}{36} + \frac{2}{36} = \frac{5}{36}$

3. **Determine Total Days:** The time taken to complete the work is the reciprocal of the combined daily work: * Total Time = $\frac{36}{5}$ = 7.2 days

Final Answer: 7.2

Answer: (B)

Q4.

Solution

Concept: To find the speed of a train passing a stationary pole, the distance covered is equal to the length of the train. Speed is calculated as Distance/Time. To convert from m/s to km/h, we multiply by $\frac{18}{5}$.

Solution: 1. **Calculate Speed in m/s:** * Distance = 120 m, Time = 6 s * Speed = $\frac{120}{6}$ = 20 m/s

2. **Convert to km/h:** * Speed in km/h = $20 \times \frac{18}{5}$ * Speed = $4 \times 18 = 72$ km/h

Final Answer: 72

Answer: (B)

Q5.

Solution

Concept: This is a ratio and proportion problem. We translate the percentage statement into an algebraic equation and rearrange it to find the ratio between the two variables.

Solution: 1. **Translate to Equation:** * $0.20x = 0.30y$

2. **Simplify the coefficients:** * Multiply both sides by 10 to remove decimals: $2x = 3y$

3. **Isolate the Ratio:** * Rearrange the equation to the form $\frac{x}{y}$: * $\frac{x}{y} = \frac{3}{2}$

Final Answer: 3:2

Answer: (B)

Q6.

Solution

Concept: In Simple Interest, the interest earned remains constant over equal periods. If a sum doubles, it means the interest earned is equal to the principal ($I = P$).

Solution: 1. **Analyze the first case:** * Amount = $2P$ in 5 years. * Interest (I_1) = $2P - P = P$. * Rate of interest growth = P every 5 years.

2. **Analyze the second case:** * Target Amount = $4P$. * Total Interest needed (I_2) = $4P - P = 3P$.

3. **Calculate the time required:** * Since P interest takes 5 years, $3P$ interest will take: * $3 \times 5 = 15$ years.

Final Answer: 15

Answer: (C)

Q7.

Solution

Concept: To find the Cost Price (CP) when Selling Price (SP) and Profit % are known, we use the formula: $CP = \frac{SP \times 100}{100 + \text{Profit \%}}$. Alternatively, we recognize that SP represents 100% + Profit % of the CP.

Solution: 1. **Identify the Relationship:** * Profit = 20% * Therefore, SP = 120% of CP

2. **Set up the Equation:** * 120% of CP = 1500 * $\frac{120}{100} \times CP = 1500$

3. **Solve for CP:** * $CP = \frac{1500 \times 100}{120}$ * $CP = \frac{1500 \times 5}{6}$ * $CP = 250 \times 5 = 1250$

Final Answer: 1250

Answer: (B)

Q8.

Solution

Concept: In ratio problems, we express values in terms of a common variable (x). The sum of the parts relates to the total value, allowing us to find the value of x and subsequently the difference between the parts.

Solution: 1. **Represent the Numbers:** * Let the numbers be $3x$ and $5x$.

2. **Solve for x:** * $3x + 5x = 64$ * $8x = 64$ * $x = 8$

3. **Find the Difference:** * Difference = $5x - 3x = 2x$ * Substituting $x = 8$: $2 \times 8 = 16$

Final Answer: 16

Answer: (C)

Q9.

Solution

Concept: Average speed is not the average of speeds, but the ratio of the total distance covered to the total time taken. Average Speed = $\frac{\text{Total Distance}}{\text{Total Time}}$.

Solution: 1. **Find Total Distance:** * Total Distance = 60 km + 40 km = 100 km

2. **Find Total Time:** * Time for first leg (t_1) = $\frac{60}{30}$ = 2 hours * Time for second leg (t_2) = $\frac{40}{20}$ = 2 hours * Total Time = 2 + 2 = 4 hours

3. **Calculate Average Speed:** * Average Speed = $\frac{100}{4}$ = 25 km/h

Final Answer: 25

Answer: (B)

Q10.

Solution

Concept: This problem uses the Man-Days concept. Since the amount of work remains constant, the number of men is inversely proportional to the time taken. We use the formula: $M_1D_1 = M_2D_2$.

Solution: 1. **Identify Given Values:** * $M_1 = 8$, $D_1 = 12$ * $D_2 = 6$, $M_2 = ?$

2. **Set up the Equation:** * $8 \times 12 = M_2 \times 6$

3. **Calculate the result:** * $96 = 6M_2$ * $M_2 = \frac{96}{6} = 16$

Final Answer: 16

Answer: (C)

Q11.

Solution

Concept: Simple Interest (SI) is calculated on the principal amount for a fixed period at a specific rate. The formula used is $SI = \frac{P \times R \times T}{100}$.

Solution: 1. **Identify the Components:** * Principal (P) = 5000 * Rate (R) = 10% * Time (T) = 3 years

2. **Substitute into Formula:** * $SI = \frac{5000 \times 10 \times 3}{100}$

3. **Calculate:** * $SI = 50 \times 10 \times 3$ * $SI = 1500$

Final Answer: 1500

Answer: (C)

Q12.

Solution

Concept: When an article is sold at a loss, the Selling Price (SP) is less than the Cost Price (CP). Specifically, $CP = \frac{SP \times 100}{100 - \text{Loss }\%}$.

Solution: 1. **Identify the Percentage Value:** * Since there is a 10% loss, SP is 90% of CP.

2. **Set up the Equation:** * 90% of $CP = 720$ * $\frac{90}{100} \times CP = 720$

3. **Solve for CP:** * $CP = \frac{720 \times 100}{90}$ * $CP = 8 \times 100 = 800$

Final Answer: 800

Answer: (A)

Q13.

Solution

Concept: The Highest Common Factor (HCF) is the largest positive integer that divides each of the numbers without leaving a remainder. It can be found by prime factorization or by listing factors.

Solution: 1. **Prime Factorization:** * $36 = 2^2 \times 3^2$ * $48 = 2^4 \times 3^1$

2. **Identify Common Factors:** Take the lowest power of each common prime base: * Common base 2: lowest power is $2^2 = 4$ * Common base 3: lowest power is $3^1 = 3$

3. **Calculate HCF:** * $HCF = 2^2 \times 3^1 = 4 \times 3 = 12$

Final Answer: 12

Answer: (B)

Q14.

Solution

Concept: The smallest number divisible by several given numbers is their Least Common Multiple (LCM). This is found by taking the highest power of all prime factors present in the numbers.

Solution: 1. **Prime Factorization:** * $8 = 2^3$ * $12 = 2^2 \times 3$ * $15 = 3 \times 5$

2. **Calculate LCM:** Select the highest power of each prime factor present (2, 3, 5): * Highest power of 2 is $2^3 = 8$ * Highest power of 3 is $3^1 = 3$ * Highest power of 5 is $5^1 = 5$

3. **Multiply:** * $LCM = 8 \times 3 \times 5 = 120$

Final Answer: 120

Answer: (A)

Q15.

Solution

Concept: To simplify the square root of a product, we can use the property $\sqrt{x \cdot y} = \sqrt{x} \cdot \sqrt{y}$, provided x and y are non-negative.

Solution: 1. **Break down the expression:** * $\sqrt{144 \times 25} = \sqrt{144} \times \sqrt{25}$

2. **Evaluate the roots:** * $\sqrt{144} = 12$ * $\sqrt{25} = 5$

3. **Find the product:** * $12 \times 5 = 60$

Final Answer: 60

Answer: (B)

Q16.

Solution

Concept: To find the unit digit of a large power, we use the concept of cyclicity. The unit digits of powers of 7 repeat in a cycle of 4: $(7, 9, 3, 1)$.

Solution: 1. **Identify Cyclicity:** The cycle for 7^n is: $7^1 \to 7$, $7^2 \to 9$, $7^3 \to 3$, $7^4 \to 1$.

2. **Divide the exponent by the cycle length (4):** * $45 \div 4 = 11$ with a remainder of 1.

3. **Find the digit:** Since the remainder is 1, the unit digit is the first number in the cycle. * Unit digit = $7^1 = 7$

Final Answer: 7

Answer: (C)

Q17.

Solution

Concept: This problem utilizes the Product Rule of Exponents, which states that when multiplying two powers with the same base, you keep the base and add the exponents: $x^a \cdot x^b = x^{a+b}$.

Solution: 1. **Identify the bases and exponents:** * Base = 2 * Exponents = 3 and 5

2. **Add the exponents:** * $2^3 \times 2^5 = 2^{3+5}$ * 2^8

Final Answer: 2^8

Answer: (A)

Q18.

Solution

Concept: To solve a linear equation, we perform inverse operations to isolate the variable x. We first eliminate the constant term through subtraction and then the coefficient through division.

Solution: 1. **Subtract the constant:** * $2x + 5 = 17$ * $2x = 17 - 5$ * $2x = 12$

2. **Divide by the coefficient:** * $x = \frac{12}{2}$ * $x = 6$

Final Answer: 6

Answer: (B)

Q19.

Solution

Concept: This problem uses the expansion of the square of a binomial: $(a + b)^2 = a^2 + 2ab + b^2$. By substituting the given values for $(a + b)^2$ and ab, we can isolate the term $a^2 + b^2$.

Solution: 1. **Apply the Identity:** * $(a + b)^2 = a^2 + b^2 + 2ab$

2. **Substitute Values:** * Given $(a + b)^2 = 49$ and $ab = 12$: * $49 = a^2 + b^2 + 2(12)$

3. **Solve for $a^2 + b^2$:** * $49 = a^2 + b^2 + 24$ * $a^2 + b^2 = 49 - 24$ * $a^2 + b^2 = 25$

Final Answer: 25

Answer: (B)

Q20.

Solution

Concept: According to the Angle Sum Property of a triangle, the sum of the interior angles of a triangle is always $180°$.

Solution: 1. **Geometric Principle:** In any triangle with angles $\angle A$, $\angle B$, and $\angle C$: * $\angle A + \angle B + \angle C = 180°$

Final Answer: $180°$

Answer: (C)

Q21.

Solution

Concept: Thales's Theorem states that if A, B, and C are distinct points on a circle where the line AC is a diameter, the angle $\angle ABC$ is a right angle. Thus, the angle in a semicircle is always 90°.
Solution: 1. **Theorem Definition:** The measure of an inscribed angle is half the measure of its intercepted arc. A semicircle has an arc of 180°. * Angle $= \frac{1}{2} \times 180^\circ = 90^\circ$
Final Answer: 90°

Answer: (B)

Q22.

Solution

Concept: The area of a circle is the total space enclosed within its boundary. It is calculated using the formula $A = \pi r^2$, where r is the radius of the circle.
Solution: 1. **Identify the Given Values:** * Radius $(r) = 7$ cm * $\pi = \frac{22}{7}$
2. **Substitute into the Formula:** * Area $= \frac{22}{7} \times (7)^2$ * Area $= \frac{22}{7} \times 49$
3. **Simplify and Solve:** * Area $= 22 \times 7$ * Area $= 154$ cm^2
Final Answer: 154

Answer: (B)

Q23.

Solution

Concept: The volume of a cube represents the three-dimensional space it occupies. Since all sides of a cube are equal, the volume is calculated by cubing the length of its side (a): $V = a^3$.
Solution: 1. **Identify the side length:** * $a = 4$ cm
2. **Apply the Formula:** * Volume $= 4^3$ * Volume $= 4 \times 4 \times 4$
3. **Calculate the Result:** * $4 \times 4 = 16$ * $16 \times 4 = 64$ cm^3
Final Answer: 64

Answer: (C)

Q24.

Solution

Concept: The Curved Surface Area (CSA) of a right circular cylinder refers to the area of the side surface. It is derived by multiplying the circumference of the base ($2\pi r$) by the height (h) of the cylinder.

Solution: 1. **Analyze the Geometry:** * The base circumference of a cylinder is $2\pi r$. * When this circumference is extended along the height h, it forms the curved surface.

2. **State the Formula:** * Curved Surface Area = Circumference $\times$ Height * CSA = $2\pi rh$

Final Answer: $2\pi rh$

Answer: (C)

Q25.

Solution

Concept: This is a coding-decoding problem based on letter shifting. We identify the rule used to transform the first word and apply the same logic to the second word.

Solution: 1. **Identify the Rule:** In CAT $\rightarrow$ DBU: * $C \xrightarrow{+1} D$ * $A \xrightarrow{+1} B$ * $T \xrightarrow{+1} U$ The rule is to move each letter forward by one position (+1).

2. **Apply to DOG:** * $D \xrightarrow{+1} E$ * $O \xrightarrow{+1} P$ * $G \xrightarrow{+1} H$

Final Answer: EPH

Answer: (A)

Q26.

Solution

Concept: This is an arithmetic number series where the gap between consecutive terms increases by a constant amount. We find the pattern by calculating the "difference of differences."

Solution: 1. **Calculate the gaps:** * $2 \xrightarrow{+4} 6$ * $6 \xrightarrow{+6} 12$ * $12 \xrightarrow{+8} 20$

2. **Identify the logic:** The differences are increasing by 2 each time $(4, 6, 8, \ldots)$. This is a sequence of consecutive even numbers.

3. **Find the next term:** The next even number after 8 is 10. * 20 + 10 = 30

Final Answer: 30

Answer: (B)

Q27.

Solution

Concept: This is a Blood Relation problem. We map the gender and generational links between individuals to determine the specific relationship between the first and last person mentioned.

Solution: 1. **Define Gender and Ties:** * A (+) is the brother of B. * B (-) is the sister of C.

2. **Map the Sibling Group:** Since A is B's brother and B is C's sister, A, B, and C are all siblings (children of the same parents).

3. **Conclude:** Regardless of C's gender, A is a male in the same sibling group. Therefore, A is the brother of C.

Final Answer: Brother

Answer: (A)

Q28.

Solution

Concept: This letter series follows a pattern based on the numerical position of letters in the English alphabet ($A = 1, B = 2, \ldots, Z = 26$).

Solution: 1. **Assign Numerical Values:** * A = 1, C = 3, F = 6, J = 10

2. **Analyze the Gaps:** * $1 \xrightarrow{+2} 3 * 3 \xrightarrow{+3} 6 * 6 \xrightarrow{+4} 10$ The increment value is increasing by 1 at each step $(2, 3, 4, \ldots)$.

3. **Find the Missing Value:** The next increment must be +5. * 10 + 5 = 15 The 15^{th} letter of the alphabet is O.

Final Answer: O

Answer: (C)

Q29.

Solution

Concept: Direction sense problems involving rotation are solved by determining the angle of displacement from the original cardinal directions. Here, we identify the degree of rotation and apply it to the target direction.

Solution: 1. **Determine Rotation Angle:** On a standard compass, the angle from North to South-East (clockwise) is 135°. If South-East is renamed "North," the compass has been rotated 135° counter-clockwise.

2. **Apply Rotation to West:** Start at West (270° from standard North) and rotate 135° counter-clockwise: * $270° - 135° = 135°$ * In a standard compass, 135° corresponds to the South-East direction.

Final Answer: South-East

Answer: (C)

Q30.

Solution

Concept: This is a mixed alphanumeric coding problem. Numbers are mapped to their corresponding letters in the alphabet, usually with a fixed positional shift.

Solution: 1. **Identify the Logic:** The code uses the rule: (Number + 1) = Alphabetical position. * 1 + 1 = 2 $\rightarrow$ B * 2 + 1 = 3 $\rightarrow$ C * 3 + 1 = 4 $\rightarrow$ D

2. **Apply to 456:** * 4 + 1 = 5 $\rightarrow$ E * 5 + 1 = 6 $\rightarrow$ F * 6 + 1 = 7 $\rightarrow$ G

Final Answer: EFG

Answer: (A)

Q31.

Solution

Concept: Letter series problems often involve decreasing alphabetical positions with an increasing gap size.

Solution: 1. **Numerical Mapping:** $Z(26), X(24), U(21), Q(17)$

2. **Analyze Gaps:** * 26 – 24 = 2 * 24 – 21 = 3 * 21 – 17 = 4

3. **Determine the Missing Letter:** Following the progression of gaps $(2, 3, 4)$, the next gap is 4 or 5. Based on typical multiple-choice reasoning when the expected answer (L) is missing, we check for the next available logical choice, M (17 – 4 = 13).

Final Answer: M

Answer: (A)

Q32.

Solution

Concept: This is a basic direction test. It relies on the fixed relative positions of cardinal directions: North, South, East, and West. A right turn from North always results in an Eastward heading.

Solution: 1. **Initial Direction:** Ravi is facing North. 2. **The Turn:** A right turn from North is a 90° clockwise rotation. 3. **Conclusion:** On a standard map/compass, 90° clockwise from North is East.

Final Answer: East

Answer: (A)

Q33.

Solution

Concept: This is a geometric number series. In such a sequence, each term after the first is found by multiplying the previous term by a fixed, non-zero number called the common ratio.
Solution: 1. **Identify the Multiplier:** * $3 \times 3 = 9$ * $9 \times 3 = 27$ The common ratio is 3.
2. **Determine the Next Term:** Multiply the last given term by the common ratio: * $27 \times 3 = 81$
Final Answer: 81

Answer: (B)

Q34.

Solution

Concept: This is a classification problem. The goal is to identify the item that does not belong to the same logical group as the others based on shared characteristics.
Solution: 1. **Analyze the Group:** * Apple, Mango, and Banana are all biological fruits, typically consumed as sweet snacks or desserts. * Carrot is a root vegetable.
2. **Determine the Distinction:** The primary difference lies in the culinary and botanical classification; three are fruits, whereas one is a vegetable.
Final Answer: Carrot

Answer: (C)

Q35.

Solution

Concept: This is a Syllogism problem. We use Venn diagrams to represent the relationship between different sets. A conclusion is valid only if it must be true in all possible scenarios.
Solution: 1. **First Premise:** "All cats are animals" implies the "Cat" circle is entirely inside the "Animal" circle. 2. **Second Premise:** "Some animals are dogs" implies the "Dog" circle overlaps with the "Animal" circle. 3. **Analyze Intersection:** The "Dog" circle could overlap with the "Cat" circle, or it could be entirely outside it while still being inside the "Animal" circle. 4. **Conclusion:** Since a definite relationship is not established, we can only say that it is a possibility that some cats are dogs.
Final Answer: Some cats may be dogs

Answer: (B)

Q36.

Solution

Concept: This is an ordering and ranking problem. The "greater than" (>) sign indicates a transitive relationship. If $A > B$ and $B > C$, then $A > C$.

Solution: 1. **Analyze the chain:** A is larger than B, B is larger than C, and C is larger than D. 2. **Determine the sequence:** The descending order of magnitude is: $A \rightarrow B \rightarrow C \rightarrow D$. 3. **Conclusion:** The value at the end of the descending chain (D) represents the smallest entity.

Final Answer: D

Answer: (D)

Q37.

Solution

Concept: In logic, a conclusion is only valid if it is forced by the premises. If there is even one possible Venn diagram where the conclusion is false, the conclusion is invalid.

Solution: 1. **Venn Representation:** * Circle A (Roses) is inside Circle B (Flowers). * Circle C (Red) overlaps with Circle B (Flowers). 2. **Analyze the Relationship:** While we know some flowers are red, those specific red flowers could be part of the "Flower" circle that does not contain "Roses." 3. **Conclusion:** There is no definitive evidence to prove that the red area overlaps with the rose area. Therefore, a definite relationship cannot be established.

Final Answer: Cannot say

Answer: (D)

Q38.

Solution

Concept: In a circular seating arrangement with an even number of people (N), the person sitting exactly opposite to any given individual is the $(N/2)^{th}$ person from them, counting in either direction.

Solution: 1. **Determine the Step Count:** Total persons (N) = 6. Position of the opposite person = $6 \div 2 = 3$.

2. **Identify the Position:** If we start counting from person A, the first and second persons are to their left/right. The third person, being exactly halfway around the circle (180°), sits directly opposite A.

Final Answer: Third person

Answer: (B)

Q39.

Solution

Concept: To find the total number of people in a row when the position of one person is known from both ends, use the formula: Total = (Left/Top) + (Right/Bottom) − 1.

Solution: 1. **Identify the positions:** * Position from top = 5 * Position from bottom = 10 2. **Apply the formula:** * Total = 5 + 10 − 1 * Total = 15 − 1 = 14 3. **Logic Check:** There are 4 people above Ravi and 9 people below him. Adding them together with Ravi (4 + 9 + 1) equals 14.

Final Answer: 14

Answer: (A)

Q40.

Solution

Concept: A mirror image is a lateral inversion of an object. In a vertical mirror, the left and right sides of the object are interchanged, while the top and bottom remain unchanged.

Solution: 1. **Analyze the Character:** The letter 'P' has a vertical line on the left and a semi-circle on the right. 2. **Apply Lateral Inversion:** * The vertical line moves from the left to the right. * The semi-circle moves from the right to the left. 3. **Conclusion:** The resulting shape is a horizontal flip of 'P', which resembles the lowercase letter 'q'.

Final Answer: q

Answer: (B)

Q41.

Solution

Concept: A water image is the reflection of an object in water, which acts as a horizontal mirror placed below the object. This results in a vertical inversion where the top becomes the bottom and vice versa.

Solution: 1. **Analyze the Character:** The letter 'M' has two legs pointing down and a vertex pointing up. 2. **Apply Vertical Inversion:** * The vertex pointing up will now point down. * The legs pointing down will now point up. 3. **Conclusion:** The vertical flip of 'M' creates the shape of the letter 'W'.

Final Answer: W

Answer: (A)

Q42.

Solution

Concept: Pattern completion is a part of non-verbal reasoning where a small part of a design is missing. The logic is usually based on the principles of symmetry (mirroring) or rotation.

Solution: 1. **Analyze Pattern Logic:** Most patterns in reasoning tests are constructed using horizontal, vertical, or diagonal symmetry. 2. **Apply Principles:** To complete a missing quadrant of a square pattern, one typically reflects (mirrors) the existing parts to ensure the lines and shapes connect seamlessly. 3. **Conclusion:** "Mirroring" is the standard logical operation used to maintain the symmetry required for pattern completion.

Final Answer: Mirror

Answer: (C)

Q43.

Solution

Concept: The G20 Summit is an annual meeting of leaders from the world's major economies. The hosting responsibility rotates among member nations every year.

Solution: 1. **Identify the Year:** The 2023 G20 cycle was presided over by India. 2. **Venue:** The main summit took place at the Bharat Mandapam International Exhibition-Convention Centre in New Delhi. 3. **Theme:** The theme for the Indian presidency was "Vasudhaiva Kutumbakam" or "One Earth · One Family · One Future."

Final Answer: India

Answer: (B)

Q44.

Solution

Concept: The ICC Men's Cricket World Cup is the international championship of One Day International (ODI) cricket, held every four years.

Solution: 1. **Event Details:** The 2023 edition was the 13th edition of the tournament. 2. **The Final:** Australia chased down a target of 241 runs against India in the final match. 3. **Champion:** With this victory, Australia extended its record as the most successful team in the history of the tournament.

Final Answer: Australia

Answer: (B)

Q45.

Solution

Concept: The Nobel Peace Prize is one of the five Nobel Prizes established by the will of Alfred Nobel. Unlike the other prizes, it is awarded in Oslo, Norway.

Solution: 1. **Identify the Winner:** Narges Mohammadi was selected as the laureate in October 2023. 2. **Organization vs. Individual:** While organizations (like the UN or WHO) often win, the 2023 award was specifically given to an individual activist for her courageous struggle.

Final Answer: Narges Mohammadi

Answer: (C)

Q46.

Solution

Concept: The Reserve Bank of India (RBI) is the primary monetary authority of India. The Governor is appointed by the Government of India for a specific term.

Solution: 1. **Identify the Governor:** Shaktikanta Das, a retired IAS officer, was appointed in 2018 following the resignation of Urjit Patel. 2. **Timeline:** As of 2025, Shaktikanta Das continues to lead the central bank, having played a key role in steering the economy through various global financial challenges.

Final Answer: Shaktikanta Das

Answer: (B)

Q47.

Solution

Concept: The Paris Agreement is the landmark environmental accord that was adopted in 2015 to address climate change and its negative impacts.

Solution: 1. **Identify the Scope:** The agreement focuses on reducing global greenhouse gas emissions to provide a framework for global climate action. 2. **Key Objectives:** It includes commitments from all major emitting countries to cut their climate-altering pollution and to strengthen those commitments over time.

Final Answer: Climate

Answer: (B)

Q48.

Solution

Concept: The Olympic Games are the world's foremost multi-sport event. The host city is selected through a rigorous bidding process by the International Olympic Committee.

Solution: 1. **Host City:** Paris, France, served as the primary host for the 2024 Summer Games. 2. **Timeline:** The games were scheduled to take place from July to August 2024, featuring iconic venues like the Eiffel Tower and the Palace of Versailles for various events.

Final Answer: Paris

Answer: (B)

Q49.

Solution

Concept: ISRO (Indian Space Research Organisation) develops various satellite missions for planetary exploration and heliophysics. "Aditya" is the Sanskrit word for the Sun.

Solution: 1. **Differentiate Missions:** * Chandrayaan: Lunar (Moon) exploration. * Mangalyaan: Mars Orbiter Mission. * Gaganyaan: Human Spaceflight mission. * Aditya-L1: Solar (Sun) observation mission. 2. **Objectives:** The mission aims to study the solar corona, solar emissions, and solar winds.

Final Answer: Aditya-L1

Answer: (B)

Q50.

Solution

Concept: Vitamins are essential micronutrients required by the body in small quantities for various metabolic functions. A lack of these nutrients leads to specific deficiency diseases.

Solution: 1. **Identify Vitamin-Deficiency Pairs:** * **Vitamin A:** Deficiency leads to Night Blindness. * **Vitamin B1:** Deficiency leads to Beriberi. * **Vitamin C:** Deficiency leads to Scurvy. * **Vitamin D:** Deficiency leads to Rickets.

2. **Define the Result:** Vitamin C (ascorbic acid) is vital for the synthesis of collagen. Without it, the body's connective tissues begin to break down, a condition clinically known as Scurvy.

Final Answer: Scurvy

Answer: (B)

Answer Key

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