

CUET 2025 May 14 General Test Question Paper with Solutions

1. In a coding system, each letter in a word is replaced by the letter that is two positions ahead in the alphabet (e.g., A becomes C, B becomes D, ..., Z becomes B). If the word "CAT" is coded using this system, what will be the code for the word "DOG"?

- (1) FQI
- (2) GPH
- (3) HPJ
- (4) IQK

Correct Answer: (1) FQI

Solution:

Given:

Word = DOG, Rule: Each letter is replaced by the letter two positions ahead in the alphabet

Step 1: Understand the Coding Rule

The alphabet is A, B, C, ..., Z (positions 1 to 26). For each letter, the coded letter is the one two positions ahead:

A (1) $\rightarrow$ C (3), B (2) $\rightarrow$ D (4), ..., Y (25) $\rightarrow$ A ($27-26=1$), Z (26) $\rightarrow$ B ($28-26=2$).

Thus, the position of the coded letter is Original position + 2, with wrapping around the alphabet (if position is more than 26, subtract 26).

Step 2: Code the Word "DOG"

Break down the word "DOG" into individual letters and apply the rule:

D: Position 4 $\rightarrow 4 + 2 = 6 \rightarrow$ Letter F

O: Position 15 $\rightarrow 15 + 2 = 17 \rightarrow$ Letter Q

G: Position 7 $\rightarrow 7 + 2 = 9 \rightarrow$ Letter I

So, "DOG" is coded as FQI.

Step 3: Verify with Example "CAT"

To ensure understanding, code "CAT" as given in the question:

C: Position 3 $\rightarrow 3 + 2 = 5 \rightarrow$ Letter E

A: Position 1 $\rightarrow 1 + 2 = 3 \rightarrow$ Letter C

T: Position 20 $\rightarrow 20 + 2 = 22 \rightarrow$ Letter V

Thus, "CAT" becomes ECV, confirming the rule is consistent. Now, check "DOG" again:

FQI matches the calculation.

Answer: The correct answer is option (1): FQI.

Quick Tip

Remember: In coding-decoding, identify the pattern (e.g., shifting letters by a fixed number) and apply it consistently to each letter. Use alphabet positions (A=1, Z=26) for clarity.

2. In a class of 40 students, the ratio of boys and girls is 3 : 2 and the average marks scored by boys is 42 and that by girls is 46. What is the average marks scored by the whole class?

(1) 43.6

(2) 44.0

(3) 45.2

(4) 45.6

Correct Answer: (1) 43.6

Solution: Given:

Total number of students = 40

Ratio of boys to girls = 3 : 2

Average marks of boys = 42

Average marks of girls = 46

Step 1: Calculate the number of boys and girls:

$$\text{Total ratio parts} = 3 + 2 = 5$$

$$\text{Number of boys} = \frac{3}{5} \times 40 = 24, \quad \text{Number of girls} = \frac{2}{5} \times 40 = 16$$

Step 2: Calculate the total marks scored by boys and girls:

$$\text{Total marks of boys} = 24 \times 42 = 1008$$

$$\text{Total marks of girls} = 16 \times 46 = 736$$

Step 3: Calculate the total marks for the whole class:

$$\text{Total marks} = 1008 + 736 = 1744$$

Step 4: Calculate the average marks for the whole class:

$$\text{Average marks} = \frac{1744}{40} = 43.6$$

Quick Tip

In problems involving averages for groups, use weighted averages when the group sizes are unequal.

3. If the ratio between the first number and the second number is 2:3 and that between the second and third number is 5:3, then the first number is:

- (1) 6
- (2) 12
- (3) 15
- (4) 18

Correct Answer: (1) 6

Solution: Given:

Ratio between first and second number = 2:3

Ratio between second and third number = 5:3

Step 1: Let the numbers be represented as follows:

First number = $2x$

Second number = $3x$

Third number = $3y$

Step 2: Use the second ratio to express x and y :

$$\frac{3x}{3y} = \frac{5}{3} \Rightarrow x = y$$

Step 3: Find the value of the fiRs t number: Since $x = y$, the fiRs t number is:

$$\text{FiRs t number} = 2x = 2 \times 3 = 6$$

Quick Tip

When given ratios, express all variables in terms of a common variable (e.g., x) to simplify the solution.

4. The volume of a cylinder having base radius 3 cm is 396 cm^3 . Find its curved surface area (in cm^2).

- (1) 264
- (2) 300
- (3) 320
- (4) 350

Correct Answer: (1) 264

Solution: Given:

Radius $r = 3 \text{ cm}$

Volume of the cylinder $V = 396 \text{ cm}^3$

Step 1: Use the formula for volume of a cylinder:

$$V = \pi r^2 h$$

Substitute the known values to find h :

$$396 = \pi(3)^2 h \Rightarrow 396 = 9\pi h$$

$$h = \frac{396}{9\pi} \approx 14 \text{ cm}$$

Step 2: Use the formula for the curved surface area of a cylinder:

$$A = 2\pi rh$$

Substitute $r = 3$ and $h = 14$:

$$A = 2\pi \times 3 \times 14 = 84\pi \approx 264 \text{ cm}^2$$

Quick Tip

Remember, the volume and surface area formulas for cylinders are fundamental and are often used together in problems.

5. What should come in the place of the question mark (?) in the following alphanumeric series? A1X, B4P, E25J, J100F, ?

- (1) O289D
- (2) P225D
- (3) R289G
- (4) S289E

Correct Answer: (1) O289D

Solution: Step 1: Observe the pattern in the letters and numbers :

Letters at the beginning: A, B, E, J (these are increasing by positions in the alphabet: A -> B -> E -> J)

Numbers : 1, 4, 25, 100 (these are squares of 1, 2, 5, 10)

Letters at the end: X, P, J, F (these are moving backwards in the alphabet with steps: X -> P -> J -> F)

Step 2: Predict the next elements:

The next letter in the sequence after J is O.

The next number is 289, which is the square of 17.

The next letter at the end is D (following the reverse alphabet pattern).

Thus, the missing term is O289D.

Quick Tip

In alphanumeric sequences, focus on the individual patterns for letters and numbers separately.
