



General Instructions

- (i) The examination will be conducted in Computer-Based Test (CBT) mode.
- (ii) Each question carries +5 marks for correct answer and -1 mark for wrong answer.
- (iii) The total number of questions are 50.
- (iv) Duration of the exam is 1 hour (60 minutes).

1. A cube of side 125 cm is painted red on all the faces and then cut into smaller cubes of side 25 cm each. Find the number of smaller cubes having at least two faces painted.

- (A) 48
- (B) 36
- (C) 44
- (D) 52

2. In a square, lengths of the diagonals are $(4k+6)$ cm and $(7k-3)$ cm. The area of the square (in cm^2) is:

- (A) 144
 - (B) 162
 - (C) 169
 - (D) 172
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3. A boy leaves his house. He travels 6 km towards South, then travels 8 km towards West and further travels 9 km towards South. How far and in which direction is he from his house now?

- (A) 13 km, South West
 - (B) 17 km, South West
 - (C) 17 km, North West
 - (D) 13 km, West
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4. The sum of three numbers is 136. If the ratio between the first number and the second number is 2:3 and that between the second and the third number is 5: 3, then the first number is:

- (A) 42
 - (B) 40
 - (C) 36
 - (D) 32
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5. The volume of a cylinder having base radius 3 cm is 396 cm^3 . Find its curved surface area (in cm^2). (Use $\pi = \frac{22}{7}$)

- (A) 280
 - (B) 301.5
 - (C) 264
 - (D) 320.6
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6. Three statements are given below followed by their conclusions. Choose the best option that fits :

Statements:

- 1. All lemons are plums.
- 2. All plums are dates.

3. Some dates are mangoes.

Conclusions:

I. Some lemons are mangoes.

II. Some mangoes are plums.

III. All lemons are dates.

IV. Some mangoes are dates.

(A) Only conclusions II and III follow

(B) Only conclusions I and IV follow

(C) Only conclusions I and II follow

(D) Both conclusions III and IV follow

7. What will be the next number of the series: 3, 6, 10.5, 17, 26, ?

(A) 31

(B) 38

(C) 40

(D) 41

8. A train running at the speed of 80 km/h crosses a 450 m long tunnel in 36 seconds. The length of the train (in m) is:

(A) 350

(B) 380

(C) 420

(D) 450

9. A tap can fill a tank in 6 hours. After half the tank is filled, three more similar taps are opened. What is the total time taken to fill the tank completely?

- (A) 4 hours
 - (B) 5 hours
 - (C) 3 hours 30 minutes
 - (D) 3 hours 45 minutes
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10. The present age of Harish is 8 times the sum of the ages of his two sons at present. After 8 years, his age will be 2 times the sum of the ages of his two sons. The present age of Harish (in years) is:

- (A) 31
 - (B) 32
 - (C) 33
 - (D) 34
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