

CAT 2025 Slot 3 QA Question Paper

Time Allowed :40 Minutes	Maximum Marks :66	Total Questions :22
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General Instructions

Read the following instructions very carefully:

1. The total duration of the QA section is **40 minutes**.
2. Each correct answer carries **+3 marks**.
3. For multiple-choice questions (MCQs), **-1 mark** will be deducted for each wrong answer.
4. There is **no negative marking** for Type-in-the-Answer (TITA) questions.
5. Once the allotted time for a section ends, you will automatically move to the next section. You cannot go back to a previous section.
6. All answers must be entered on the computer screen using the mouse and keyboard. Rough sheets will be provided.
7. The use of calculators, mobile phones, or any other electronic device is strictly prohibited. An on-screen basic calculator will be provided.

1. There are 4 people M, S, P, R.

- P gets 20% of the total.
- M gets 40% of the remaining amount.
- S gets 20% less than M.
- R gets the remaining amount.

Find the ratio P : R.

- (A) 25 : 28
(B) 20 : 23
(C) 5 : 6
(D) 50 : 53

2. N is a 3-digit number with non-zero digits. No digit is a perfect square and only 1 of the digits is a prime number. What is the number of factors of the smallest such number possible?

- (A) 6
(B) 8

- (C) 10
 - (D) 12
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3. From an external point P, two tangents PA and PB are drawn to a circle with centre O. Radii OA and OB are perpendicular to the tangents and the angle $\angle AOB = 50^\circ$. A third tangent is drawn which intersects both PA and PB. Find the angle $\angle APB$.

- (A) 110°
 - (B) 120°
 - (C) 130°
 - (D) 140°
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Question 4. If $(2m+n) + (2n+m) = 27$, find the maximum value of $(2m-3)$, assuming m and n are positive integers.

- (A) 11
 - (B) 13
 - (C) 15
 - (D) 17
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5. Find the sum of digits of the number $625^{65} \times 128^{36}$.

- (A) 20
 - (B) 25
 - (C) 30
 - (D) 35
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6. A man takes a loan of 1000 and repays it by paying 530 at the end of the first year, and 594 at the end of the second year. Find the rate of interest per annum.

- (A) 8%
 - (B) 10%
 - (C) 12%
 - (D) 9%
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7. The average of the first 7 numbers in a series is 60. When the 8th number is added, the average of the first 8 numbers becomes 63. The 9th number is 11 more than the 8th number. It is also given that the average of the 2nd to the 9th numbers is 66. Find the value of the 1st number in the series.

- (A) 68
 - (B) 70
 - (C) 71
 - (D) 75
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8. For the number $N = 2^3 \times 3^7 \times 5^7 \times 7^9 \times 10!$, how many factors are perfect squares and also multiples of 420?

- (A) 400
 - (B) 450
 - (C) 500
 - (D) 600
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9. For the quadratic function $f(x) = x^2 - kx + 12$, the minimum value of $f(x)$ is 3. Which of the following is the value of k ?

- (A) 6
 - (B) 8
 - (C) 10
 - (D) 12
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10. Two circles of radii 6 cm and 6 cm intersect each other. The distance between their centers is 8 cm. What is the length of their common chord?

- (A) $4\sqrt{5}$ cm
 - (B) $6\sqrt{2}$ cm
 - (C) 8 cm
 - (D) 6 cm
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11. A shopkeeper sells an item at a profit of 20%. If he had bought it at 10% less and sold it for 60 more, his profit would become 60%. What is the cost price of the item?

- (A) 200
 - (B) 250
 - (C) 300
 - (D) 280
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12. Find the range of x satisfying both: $|2x - 7| < 5$ and $x + 3 > 0$

- (A) $1 < x < 6$
 - (B) $x > 1$
 - (C) $1 < x < 7$
 - (D) $x > -3$
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13. A container has a mixture of milk and water in the ratio 5 : 2. If 14 liters of this mixture is removed and replaced with water, the ratio becomes 5 : 4. What is the initial quantity of the mixture?

- (A) 63 L
 - (B) 35 L
 - (C) 49 L
 - (D) 56 L
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