XAT 2026 Question Paper with Solutions

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1. A shopkeeper marks his goods 40% above cost price and offers a discount of 20%. What is his overall profit percentage?

(A) 8%

(B) 12%

(C) 20%

(D) 28%

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2. If $x + \frac{1}{x} = 3$, then the value of $x^3 + \frac{1}{x^3}$ is:

(A) 18

(B) 27

(C) 36

(D) 45

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3. A train travels 360 km at a uniform speed. If the speed had been 5 km/h more, it would have taken 1 hour less. What is the original speed?

(A) 40 km/h

(B) 45 km/h

(C) 50 km/h

(D) 60 km/h

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4. The value of $\int_0^1 x(1-x)^5\,dx$ is:

(A) $\frac{1}{12}$

(B) $\frac{1}{15}$

(C) $\frac{1}{18}$

(D) $\frac{1}{30}$

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5. In a class of 50 students, 30 play football, 25 play cricket, and 10 play both. How many play neither?

(A) 5

(B) 10

(C) 15

(D) 20

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6. The number of solutions to the equation $|x-1|+|x-3|=4$ is:

(A) 2

(B) 3

(C) 4

(D) Infinite

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7. If $\log_{10}(x+1)+\log_{10}(x-1)=1$, then $x=$

(A) 3

(B) $\sqrt{10}$

(C) $\sqrt{11}$

(D) 10

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8. A sum of Rs. 8000 amounts to Rs. 10000 in 2 years at simple interest. What is the rate of interest?

(A) 10%

(B) 12.5%

(C) 15%

(D) 20%

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9. The equation of the tangent to the parabola $y^2=8x$ at point $(2,4)$ is:

(A) $y=x+2$

(B) $y=2x+2$

(C) $y = x + 4$

(D) $y = 2x$

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10. In how many ways can 5 identical red balls and 3 identical blue balls be arranged in a row?

(A) 56

(B) 70

(C) 126

(D) 210

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11. If $A = \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$, then the determinant of A^2 is:

(A) -4

(B) 4

(C) 25

(D) 49

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12. A year selected at random has 365 days. The probability that it has 53 Sundays is:

(A) $\frac{1}{7}$

(B) $\frac{2}{7}$

(C) $\frac{1}{365}$

(D) $\frac{53}{365}$

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13. If $\sin\theta + \cos\theta = \sqrt{2}$, then $\tan\theta + \cot\theta$ equals:

(A) 1

(B) 2

(C) $\sqrt{2}$

(D) 0

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14. A bag contains 4 red and 6 black balls. Two balls are drawn without replacement. The probability that both are red is:

(A) $\frac{1}{15}$

(B) $\frac{2}{15}$

(C) $\frac{3}{15}$

(D) $\frac{4}{15}$

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15. The area bounded by $y = x^2$ and $y = 2x$ from $x = 0$ to $x = 2$ is:

(A) $\frac{8}{3}$

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

(C) $\frac{16}{3}$

(D) $\frac{10}{3}$

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