

XAT 2026 Question Paper with Solutions

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) $\frac{1}{30}$

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

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

- (A) 2
- (B) 3
- (C) 4
- (D) Infinite

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

- (A) 3
- (B) $\sqrt{10}$
- (C) $\sqrt{11}$
- (D) 10

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%

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) $y = 2x$

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

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

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) $\frac{53}{365}$

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

(A) 1

(B) 2

(C) $\sqrt{2}$

(D) 0

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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