

ADMISSION TEST

Class 09 - Admission Test

Time Allowed: 30 minutes

Maximum Marks: 33

General Instructions:

All the questions are compulsory.

1. 160 m³ of water is to be used to irrigate a rectangular field whose area is 800 m². What will be the height of the water level in the field? [1]
a) 2 m
b) 1.6 m
c) 0.2 m
d) 0.4 m
2. Which of the following is not a random experiment? [1]
a) Rolling a die
b) Tossing a coin
c) Throwing a stone from the roof of a building
d) Choosing a card from a deck of 52 cards
3. _____ of a solid is the sum of the areas of its faces. [1]
a) Perimeter
b) Area
c) Volume
d) Surface area
4. A sum of money placed at compound interest doubles itself in 4 years. In how many years will it amount to eight times itself? [1]
a) 14 yrs
b) 12 yrs
c) 16 yrs
d) 18 yrs
5. 729 ml of a mixture contains milk and water in the ratio 7 : 2. How much more water is to be added to get a new mixture containing milk and water in the ratio 7 : 3? [1]
a) 520 ml
b) none of these
c) 710 ml
d) 600 ml
6. Evaluate: 8^2 . [1]
a) 64
b) 16
c) 8
d) 24
7. Ratio of 250 ml to 2 L is [1]
a) 25 : 200
b) 1 : 8
c) 8 : 1
d) 2 : 1
8. If 12.5% of 192 = 50% of x, then x = [1]

- a) 48
b) 45
c) 25
d) 92

9. A rectangular container is of size 12 cm (length) \times 8 cm (width) and 4 cm (height). How many ice cubes of side 2 cm each can be placed in this container? [1]
a) 58
b) 28
c) 38
d) 48

10. A cube of side 4 cm is cut into 1 cm cubes. What is the ratio of the surface areas of the original cube and cut-out cubes? [1]
a) 1 : 4
b) 1 : 6
c) 1 : 2
d) 1 : 3

11. Samir purchased a pair of shoes for ₹1344 including GST. If the sale price of the shoes is ₹1200, then the rate of GST is [1]
a) 18%
b) 12%
c) 6%
d) $10\frac{5}{7}\%$

12. $A \times A = 3A$ when A [1]
a) 6
b) 7
c) 4
d) 2

13. In the given multiplication, the value of A is [1]

$$\begin{array}{r} AB \\ \times 5 \\ \hline CAB \end{array}$$
a) A = 2, B = 5, C = 1
b) A = 7, B = 0, C = 0
c) A = 5, B = 0, C = 3
d) A = 2, B = 8, C = 4

14. Evaluate the exponential expression $(-y)^4 \times (-y)^5$, for y = 1. [1]
a) 9
b) 2
c) 1
d) -1

15. Which of the following properties of rational numbers is shown below? [1]

$$\frac{3}{4} \times \left(\frac{7}{3} \times \frac{-4}{5} \right) = \left(\frac{3}{4} \times \frac{7}{3} \right) \times \frac{-4}{5}$$
a) Distributivity of addition over multiplication
b) Commutativity of addition
c) Distributivity of multiplication over addition
d) Associativity of multiplication

16. The compound interest on ₹ 30000 at 7% per annum is ₹ 4347. The period (in years) is: [1]
a) 3
b) 2
c) $2\frac{1}{2}$
d) 4

17. Find $\frac{3}{7} + \left(-\frac{6}{11} \right) + \left(-\frac{8}{21} \right) + \frac{5}{22}$ [1]
a) 462
b) 125
c) $\frac{-125}{462}$
d) -125

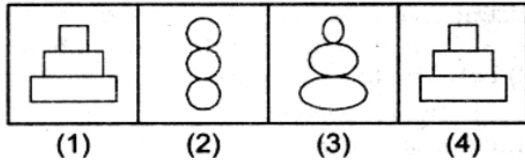
18. Find a rational number between $\frac{1}{4}$ and $\frac{1}{2}$. [1]
- a) $\frac{3}{8}$ b) 0
c) $\frac{1}{2}$ d) 2
19. Find $\frac{3}{4} + \left(-\frac{5}{2}\right) + \left(-\frac{8}{3}\right) + \frac{5}{5}$ [1]
- a) -41 b) -1
c) $-\frac{41}{12}$ d) 12
20. Find the surface area of a chalk box whose length, breadth and height are 10 cm, 6 cm and 3 cm respectively. [1]
- a) 256 cm^2 b) 117 cm^2
c) 275 cm^2 d) 216 cm^2
21. The price of a washing machine is Rs 15,000. The sales tax charged on it is at the rate of 15%. Find the amount that Arjun will have to pay if he buys it. [1]
- a) Rs 14,250 b) Rs 14,550
c) Rs 15,250 d) Rs 17,250
22. An item marked at Rs 540 is sold for Rs 500. What is the discount amount? [1]
- a) Rs 50 b) Rs 40
c) Rs 30 d) Rs 60
23. The standard form for 0.000064 is: [1]
- a) 6.4×10^{-5} b) 6.4×10^5
c) 64×10^{-4} d) 64×10^4
24. If 8% VAT is included in the prices, find the original price of a TV bought for Rs 13,500. [1]
- a) Rs 13,000 b) Rs 12,500
c) Rs 12,000 d) Rs 14,000
25. Simplify: $2^5 \div 2^{-6}$ [1]
- a) 2^9 b) 2^{11}
c) 2^{10} d) 2^8
26. Data represented using circles is known as: [1]
- a) histogram b) pie chart
c) bar graph d) pictograph
27. The difference of a amount of two years compounded interest and simple interest is ₹160. If simple interest for 2 years is ₹2880, then what is rate of interest? [1]
- a) $11\frac{1}{9}\%$ b) 9%
c) $5\frac{5}{9}\%$ d) $12\frac{1}{2}\%$
28. Solve: $\frac{2x}{3} + 1 = \frac{7x}{15} + 3$ [1]
- a) 6 b) 5

c) 3

d) 10

29. Select the figure which is different from others.

[1]



a) Figure (1)

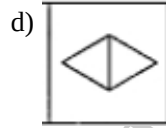
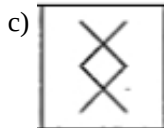
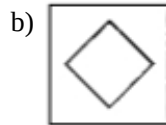
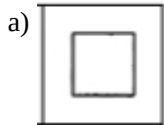
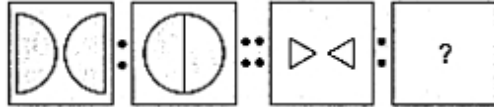
b) Figure (2)

c) Figure (4)

d) Figure (3)

30. Select the figure that shows a similar relationship.

[1]



31. Riya walks 15 m towards West. She turned left and walks 20 m. She then turned left and walked 15 m. After this she turned to her right and walks 12 m. How far and in which direction is she now from the starting point? [1]

a) 47 m, East

b) 42 m, South

c) 42 m, North

d) 32 m, South

32. In the English alphabet, which letter will be to the immediate left of M? [1]

A, B, C, D, M, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z

a) P

b) O

c) L

d) N

33. Select the figure that shows the similar relationship. [1]

