

**INTERNATIONAL TALENT SEARCH EXAMINATION
2024 – 2025 PRACTICE PAPER**

CLASS –VIII (MATHEMATICS)

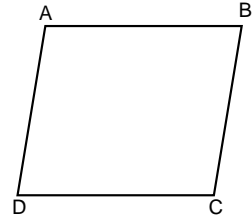
Set – A

1. The multiplicative inverse of -1 is equal to
(A) 1 (B) -1
(C) 10 (D) -10
2. If $-\frac{15}{28}k = -\frac{5}{7}$, then k is equal to
(A) $\frac{4}{3}$ (B) $\frac{3}{4}$
(C) $\frac{5}{3}$ (D) $\frac{3}{5}$
3. If $16 \times 196 = x^2$, then the value of x is
(A) 46 (B) 49
(C) 56 (D) 59
4. The square of x is an odd number, and then x must be (out of the four choices given)
(A) 2248 (B) 1392
(C) 2223 (D) 28
5. 1372 becomes a perfect cube after multiplying by
(A) 2 (B) 3
(C) 4 (D) 15
6. $\sqrt[3]{\frac{0.008}{0.027}} \times \sqrt{\frac{x}{0.16}} = 1$, then $x = ?$
(A) 0.16 (B) 0.25
(C) 0.36 (D) none of these
7. The value of y in $2y + 8 = -5$ is
(A) $\frac{1}{2}$ (B) $\frac{15}{2}$
(C) $\frac{8}{3}$ (D) $-\frac{13}{2}$
8. If $0.18(5x - 4) = 0.5x + 0.8$, then x equals
(A) 4.8 (B) 3.8
(C) 5.8 (D) none of these

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9. If ABCD is a rhombus then which of the following statement is not true?

- (A) $AB = AD$ (B) $BC = DC$
(C) $\triangle ABC \cong \triangle ADC$ (D) $\triangle ABC \cong \triangle ABD$



10. The diagonals of a quadrilateral bisect each other at 90° . The quadrilateral is a

- (A) rectangle (B) square
(C) parallelogram (D) trapezium

11. The angles of a quadrilateral are in the ratio $1 : 3 : 7 : 9$ the measure of the shortest angle is:

- (A) 18° (B) 15°
(C) 12° (D) 54°

12. The length of a rectangle is 8cm and each of its diagonals measures 12cm, the breadth of the rectangle is:

- (A) 15 cm (B) $4\sqrt{5}$ cm
(C) $2\sqrt{2}$ cm (D) $3\sqrt{3}$ cm

13. The inclusive class interval are also called:

- (A) discontinuous class intervals (B) continuous class intervals
(C) unequal class intervals (D) higher class intervals

14. The class size of the intervals $14 - 17$, $18 - 21$, $22 - 25$ is:

- (A) 3 (B) 4
(C) 5 (D) none of these

15. The x-coordinates of a point is its distance from

- (A) x-axis (B) y-axis
(C) origin (D) none of these

16. The y-coordinates of a point is its distance from

- (A) x-axis (B) y-axis
(C) origin (D) none of these

17. A retailer buys a radio for Rs 225. His overhead expenses are Rs 15. If he sells the radio for Rs 300. Determine his profit percent.

- (A) 25% (B) 36%
(C) 37% (D) 24%

18. Jyoti and Meena run a ready-made garment shop. They mark the garments at such a price that even after allowing a discount of 12.5% They make a profit of 10%. Find the marked price of a suit which costs them Rs.1470

- (A) Rs1800 (B) Rs1848
(C) Rs3200 (D) Rs3400

19. The value of 95×96 is

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- (A) 8520
(C) 9120
- (B) 8730
(D) 9130
20. The value of b in the equation $(x + 6)(x + b) = x^2 + 2x - 24$ is
(A) 2
(C) -2
- (B) 4
(D) -4
21. The factor of $2mx - 2my - nx + ny$ is:
(A) $(x - y)(2m - n)$
(C) $(x - y)(2m + n)$
- (B) $(x + y)(2m - n)$
(D) $(x + y)(2m + n)$
22. If $a - b = 3$ and $a^3 - b^3 = 117$, then ab is equal to
(A) 5
(C) 9
- (B) 10
(D) 11
23. $\left(27\frac{2}{3}\right)^{\frac{1}{2}}$ is equal to:
(A) $\frac{1}{9}$
(C) $\frac{2}{3}$
- (B) $\frac{27}{54}$
(D) $\frac{1}{3}$
24. The value of $\frac{x^{a+b} \cdot x^{b+c} \cdot x^{c+a}}{(x^a \cdot x^b \cdot x^c)^2}$ is:
(A) x^2
(C) x^{abc}
- (B) x^{a+b+c}
(D) x^0
25. The third proportional to $(a - b)$ and $(a^2 - b^2)$ is
(A) $(a - b)(a^2 - b^2)$
(C) $(a + b)(a^2 - b^2)$
- (B) $(a + b)(a^2 + b^2)$
(D) $(a - b)(a^2 + b^2)$
26. The mean proportion between 3 and 27 is
(A) 9
(C) 12
- (B) 18
(D) 21
27. The volume of earth must be dug out to sink a well 21 m deep and 6 m diameter would be equal to:
(A) 594 m^3
(C) 495 m^3
- (B) 549 m^3
(D) none of these
28. Water flows through a circular pipe whose internal diameter is 2 cm at 6 m/s into a cylindrical tank, the radius of whose base is 60 cm. The rise in level of water in 30 minutes is equal to:
(A) 3 m
(C) 4 m
- (B) 2m
(D) none of these
29. When a certain number is multiplied by 13, the product consists entirely of fives. The smallest such number is

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- (A) 41625 (B) 42515
(C) 42735 (D) 42135

30. A number $\overline{67y19}$ is divisible by 9, where y is a digit, then the number of possible values of y are

- (A) 4 (B) 1
(C) 2 (D) 3

31. Polygons forming a polyhedron are called.

- (A) edges (B) faces
(C) vertices (D) lines

32. Points of intersection of edges of a polyhedron are called

- (A) edges (B) faces
(C) vertices (D) lines

33. If $-\frac{4}{5} \times \left(\frac{5}{7} \times -\frac{8}{9} \right) = \left(-\frac{4}{5} \times k \right) \times -\frac{8}{9}$, then k is equal to

- (A) $-\frac{5}{7}$ (B) $\frac{5}{7}$
(C) $\frac{4}{7}$ (D) none of these

34. The unit digit of the square of 12796 is

- (A) 5 (B) 6
(C) 7 (D) 8

35. The ratio of greatest four digits perfect cube to greatest three digits perfect cube is equal to

- (A) $\frac{81}{1000}$ (B) $\frac{728}{343}$
(C) $\frac{343}{27}$ (D) none of these

36. If the sum of two numbers is 8 and their difference is 2, then the numbers are:

- (A) 10, -2 (B) 6, -4
(C) 5, 3 (D) -5, -3

37. The diagonals of a quadrilateral are equal. The quadrilateral is

- (A) parallelogram (B) rhombus
(C) trapezium (D) rectangle

38. In a square PQRS if $PQ = 2x + 3$ cm and $QR = (5x - 12)$ then

- (A) $x = 4$ (B) $x = 5$
(C) $x = 6$ (D) $x = 8$

39. The class marks of an interval are also known as the:

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- (A) width of class interval
(B) class size
(C) mid-value of class interval
(D) class limit

40. The coordinates of the origin are

- (A) (0, 0) (B) (0, 1)
(C) (1, 0) (D) (1, 1)

41. What price should Aslam mark on a pair of shoes which costs him Rs. 1200 so as to gain 12% after allowing a discount of 16%

- (A) Rs.1600 (B) Rs. 400
(C) Rs. 300 (D) Rs. 200

42. The value of $p^3 + 8q^3$ if $p + 2q = 8$ and $pq = 6$ is

- (A) 224 (B) 234
(C) 244 (D) 254

43. The factor of $ab(x^2 + 1) + x(a^2 + b^2)$ is:

- (A) $(xa - b)(bx + a)$ (B) $(xa + b)(bx + a)$
(C) $(xa + b)(xb - a)$ (D) $(xa - b)(bx - a)$

44. $\left(\frac{5^{-1} \times 7^2}{5^2 \times 7^{-4}}\right)^{\frac{1}{3}}$ is equal to:

- (A) $\frac{49}{5}$ (B) $\frac{5}{49}$
(C) $\frac{7}{25}$ (D) $\frac{5}{7}$

45. If $a : b = 5 : 7$, then $(3a + 5b) : (5a - 2b) =$

- (A) 40 : 7 (B) 50 : 11
(C) 35 : 9 (D) 17 : 5

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