

11. Abscissa of a point is positive in quadrant:

- (a) I only (b) II only (c) I and II (d) I and IV

Value based questions:

12. The points A(2, -2), B(3, -3), C(4, -4), D(5, -5) all lie in quadrant

- (a) II only (b) III only (c) IV only (d) different quadrants

13. Which of the following points does not lie on the line $y = 3x + 4$

- (a) (4,12) (b) (2,10) (c) (-1,1) (d) (1,7)

14. If $x + y + z = 9$ and $xy + yz + zx = 23$, then the value of $x^3 + y^3 + z^3 - 3xyz$ is

- (a) 108 (b) 207 (c) 669 (d) 729

15. $4a^2 + b^2 + 4ab + 8a + 4b + 4 = ?$

- (a) $(2a - b + 2)^2$ (b) $(2a + b + 2)^2$ (c) $(a + 2b + 2)^2$ (d) none of these

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

- (a) 50 (b) 51 (c) 52 (d) 53

17. $\sqrt[3]{2} \times \sqrt[4]{2} \times \sqrt[12]{32} = ?$

- (a) 2 (b) $\sqrt{2}$ (c) $2\sqrt{2}$ (d) 4

HOTS:

18. The area of $\triangle OAB$ with O(0,0), A(4,0) and B(0,6) (in sq. units) is:

- (a) 8 (b) 12 (c) 16 (d) 24

19. If $\frac{(\sqrt{3}-1)}{(\sqrt{3}+1)} = a - b\sqrt{3}$, then the values of a and b are:

- (a) -2,1 (b) 1,2 (c) -1, 2 (d) 2,1

20. If $(x^{100} + 2x^{99} + k)$ is divisible by $(x + 1)$, then the value of k is

- (a) 1 (b) 2 (c) -2 (d) -3