## **7.COORDINATE GEOMETRY**

1.	For each point on X-axis, Y-coordinate is equal to
2.	The distance of the point (3, 4) from X-axis is
3.	The distance of the point $(5, -2)$ from origin is
4.	The point equidistant from the points $(0, 0)$ , $(2, 0)$ and $(0, 2)$ is
5.	If the distance between the points $(3, a)$ and $(4,1)$ is $\sqrt{10}$ , then the value of a is
6.	If the point $(x, y)$ is equidistant from the points $(2, 1)$ and $(1, -2)$ then
7.	The closed figure with vertices (-2, 0), (2, 0), (2, 2), (0, 4) and (-2, 2) is a
8.	If the coordinates of P and Q are $(a\cos\theta, b\sin\theta)$ and $(-a\sin\theta, b\cos\theta)$ then $OP^2 + OQ^2 = $
9.	In quadrant does the point $(-3, -3)$ lie?
10.	If the distance between (k, 3) and (2, 3) is 5 then the value of k is
11.	is the condition that A, B, C are the successive points of a line.
	The coordinates of the point, dividing the join of the point (5, 0) and
12	(0, 4) in the ratio 2:3 internally are
	If the point (0, 0), (a, 0) and (0, b) are colinear then
14.	The coordinates of the centroid of the triangle whose vertices are (8, -5), (-4, 7) and (11, 13) are
15.	The coordinates of vertices A, B and C of the triangle ABC are (0, – 1), (2, 1) and (0, 3). the length of the median through B is
16.	The vertices of a triangle are $(4, y)$ , $(6, 9)$ and $(x, 4)$ . The coordinates of its centroid are $(3, 6)$ . The values of x and y are
17.	If a vertex of a parallelogram is (2, 3) and the diagonals cut at (3, – 2) is the opposite vertex.
18.	Three consecutive vertices of a parallelogram are $(-2, 1)$ , $(1, 0)$ and $(4, 3)$ . The fourth vertex is
19.	If the points $(1, 2)$ , $(-1, x)$ and $(2, 3)$ are collinear then the value of x is
20.	If the points (a, 0), (0, b) and (1, 1) are collinear the 1/a+1/b
	The coordinates of the point of intersection of X-axis and Y-axis are

22.	For each point on Y-axis, X-coordinate is equal to
23.	The distance of the point (3, 4) from Y-axis is
24.	The distance between the points $(0, 3)$ and $(-2, 0)$ is
25.	The opposite vertices of a square are $(5,-4)$ and $(-3, 2)$ . The length
	of its diagonal is
26.	The distance between the points $(a\cos\theta + b\sin\theta, 0)$ and $(0, a\sin\theta -$
	$b\cos\theta$ ) is
27.	The coordinates of the centroid of the triangle with vertices $(0, 0)$ ,
	(3a, 0) and (0, 3b) are
28.	If OPQR is a rectangle where O is the origin and P(3, 0) and R (0,
	4), then the coordinates of Q are
29.	If the centroid of the triangle (a, b), (b, c) and (c, a) is 0 (0, 0) then
	the value of $a^3 + b^3 + c^3$ is
30.	If $(-2, -1)$ , $(a, 0)$ , $(4, b)$ and $(1, 2)$ are the vertices of a parallelogram
	then the value of a and b are
31.	The area of the triangle whose vertices are (0, 0), (a, 0) and (0, b) is
32.	One end of a line is (4, 0) and its middle point is (4, 1), then the
	coordinates of the other end
33.	The distance of the mid point of the line segment joining the points
	(6, 8) and (2, 4) from the point (1, 2) is
34.	The area of the triangle formed by the points $(0, 0)$ , $(3, 0)$ and $(0, 4)$
	is
35.	The coordinates of the mid point of the line segment joining the
	points $(x_1, y_1)$ and $(x_2, y_2)$ are
36.	The distance between the points
	$(a\cos 25^0, 0)$ and $(0, a\cos 65^0)$ is
37.	The line segment joining points $(-3, -4)$ and $(1, -2)$ is divided by Y-
	axis in the ratio
38.	If A (5, 3), B (11, -5) and P (12, y) are the vertices of a right angled
	triangle if right angled at p, then y is
39.	The perimeter of the triangle formed by the points $(0, 0)$ , $(1, 0)$ and
	(0, 1) is
40.	The coordinates of the circumcentre of the triangle formed by the
	points 0(0, 0), A(a, 0) and B (0, b) is

## **ANSWERS**

- 1) 0; 2) 4; 3)  $\sqrt{29}$ ; 4) (1, 1); 5) 4, -2;
  - 6) x+3y = 0; 7) pentagon; 8)  $a^2+b^2$ ; 9) 3; 10) 7; 11) AB + BC = AC;
  - 12) (3, 8/5); 13) ab = 0; 14) (5, 5); 15) 2; 16) -1, -5; 17) (4, -7);
  - 18) (1, 4); 19) 0; 20) 1;
  - 21) (0, 0); 22) 0; 23) 3; 24)  $\sqrt{13}$ ; 25) 10;
  - 26)  $\sqrt{a^2 + b^2}$ ; 27) (a, b); 28) (3, 4);
  - 29) 3abc; 30) a=1, b=3; 31) 1/2ab;
  - 32) (4, 2); 33) 5; 34) 6; 35)  $\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}$
  - 36) a; 37) 3:1; 38) 2 or -4; 39)  $2+\sqrt{2}$ ;
  - 40) (a/2, b/2).