Chapter- 3

Co-ordinate Geometry

WORKSHEET

1 Mark

(1)   The point at which the two coordinate axes meet is called the
(a)   abscissa   (b) ordinate
(c)   origin   (d) quadrant

(2)   The points in which abscissa and ordinate have different signs will lie in
(a) I and II quadrants   (b) II and III quadrants
(c) I and III quadrants   (d) II and IV quadrants

(3)   Point (0, −7) lies
(a) on the x-axis   (b) in the second quadrant
(c) on the y-axis   (d) in the fourth quadrant

(4)   The points (−5, 2) and (2, −5) lie in the
(a) same quadrant
(b) II and III quadrants, respectively
(c) II and IV quadrants, respectively
(d) IV and II quadrants, respectively

(5)   Which of the points P (0,3), Q (1, 0), R (0, −1), S (−5,0), T(1, 2) do not lie on the x-axis?

(a)   P and R only   (b) Q and S

(c)   P, R and T   (d) Q, S and T

2 Marks

(6)   Locate the following points in the Cartesian plane:

A (0, 3) , B (5, 0), C (3, −3) and D (−2, −5)

(7)   On which axes the following points lie?

(0, 4), (−5, 0), (5, 0) and (0, −3).

(8)   Write the coordinates of the vertices of a rectangle whose length and breadth are 4 units and 3 units respectively and has onevertex at the origin,

the longer side is on the x-axis and one of the vertices lies in the 4th quadrant. Also find the area.

(9) Plot three points A, B and C which have same abscissa 4 but lie in I and IV quadrants and on x-axis respectively. Also, plot mirror image of A in y-axis.

(10) Plot the points A (−3, 2), B (−5, −4), C(−2, −4) and D(0,2). What figure do you get on joining the points in order?

3 Marks

(11) Plot two points P (0, −4) and Q(0, 4) on the graph paper. Now, plot R and S such that Δ PQR and ΔPQS are isosceles triangles.

(12) The lengths of the perpendiculars PM and PN drawn from a point P, on x-axis and y-axis are 3 and 2 units respectively. Find the coordinate of P, M and N.

(13) Draw the quadrilateral on a Cartesian plane with vertices (−4, 4), (−6, 0), (−4, −4) and (−2, 0) and name the type of the quadrilateral.

(14) The vertices of a square are P (−4, 0), Q (1, 0), R (1, −5). Plot these points. Also find the coordinates of the missing vertex S.

(15) Locate the points A (3,1), B (2, −3), C (−4, 0), D (−2, −1), E (−5, 2) and F (0, −5) in the Cartesian plane.

4 Marks

(16) Plot the points (x, y) given by the following table:

x	2	4	−3	−2	3	0
y	4	2	0	5	−3	0

(17) Plot the point A (5, 3), B (−2, 0) and C(−1, −3) on a graph paper and check whether they are collinear or not.

(18) Draw the quadrilateral whose vertices are :

(i) (1, 1), (2, 4) , (8,4) and (10, 1)

(ii) (−2, −2), (−4, 2) (−6, −2) and (−4, −6).

Name the type of quadrilateral formed in each case.

(19)   The three vertices of a rectangle ABCA are A(2, 2), B(−3, 2) and C(−3, 5). Plot these points on a graph paper and find the coordinates of D. Also, find the area of the rectangle ABCD.

(20)   (i) Plot the points A(−5, 3), B (3, 3), C (3, 0) and D (−5, 0) in the Cartesian plane.

   (ii) Name the figure ABCD.

   (iii) Find the ratio of areas of two parts of ABCD in the I quadrant and II quadrant.