CHAPTER-3

Co-ordinate Geometry

QUESTION BANK

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

(2) Ordinate of all points on the x-axis is
(a) 0 (b) 1 (c) –1 (d) any number

(3) Abscissa of all the points on the x-axis is
(a) 0 (b) 1 (c) 2 (d) any number

(4) If y coordinate of a point is zero, then the point always lies
(a) In I quadrant (b) In II quadrant
(c) on x-axis (d) on y-axis

(5) Signs of the abscissa and ordinate of a point in the second quadrant are respectively
(a) +, + (b) –, – (c) –, + (d) +, –

(6) Abscissa of a point is positive in
(a) I and II quadrants (b)I and IV quadrants
(b) I quadrant only (d) II quadrant only

(7) 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

(8) A point both of whose coordinates are negative will lie in
(a) I quadrant (b) II quadrant
(c) III quadrant (d) IV quadrant

(9) Any point on the y-axis is of the form
(a) (0, y) (b) (y, 0) (c) (0, x) (d) (y, y)

(10) The equation of y-axis is
(a) x =0 (b) y=0 (c) x+y=0 (d) x = y

(11) Point (–3, 5) lies in the
(a) first quadrant (b) second quadrant
(c) third quadrant (d) fourth quadrant

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

(13) Point (–10, 0) lies
(a) on the negative direction of the x-axis
(b) on the negative direction of the y-axis
(c) in the third quadrant
(d) in the fourth quadrant

(14) 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

(15) Points (1, –1), (2, –2), (4, –5), (–3, –4)
(a) lie in II quadrant
(b) lie in III quadrant
(c) lie in IV quadrant
(d) do not lie in the same quadrant

(16) The point whose ordinate is 4 and which lies on y-axis is
(a) (4, 0) (b) (0, 4) (c) (1, 4) (d) (4, 2)

(17) 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

(18) The point which lies on y-axis at a distance of 5 units in the negative direction of y-axis is
(a) (0,5) (b) (5,0) (c) (0, –5) (d) (–5,0)

(19) The perpendicular distance of the point P (3, 4) from the y-axis is
(a) 3 (b) 4 (c) 5 (d) 7

(20) If P (5, 1), Q (8,0), R (0, 4), S (0, 5) and (0, 0) are plotted on the graph paper, then the point (s) on the x-axis are
(a) P and R (b) R and S (c) Only Q (d) Q and O

(21) If the perpendicular distance of a point P from the x-axis is 15 units and the foot of the perpendicular lies on the negative direction of x-axis, then the point P has

(a) x-coordinate = –5 (b) y-coordinate = 5 only

(c) y-coordinate = –5 only (d) y-coordinate = 5 or –5

(22) On plotting the points O, (0, 0), A (3, 0), B (3, 4), C(0,4) and joining OA, AB, BC and CO, which of the following figure is obtained?

(a) Square (b) Rectangle (c) Trapezium (d) Rhombus

(23) Find the point on the line 2x + 5 =20, whose abscissa is 5/2 times its ordinate.

(a) (2,5) (b) (–2, 5) (c) (5, 2) (d) (–5, 2)

(24) The coordinate axes divide the cartesian plane into four parts called _____.

(25) The vertical line on the coordinate plane is called _____.

(26) The point of intersection of the coordinate axes is called the _____.

(27) The equation of x-axis is _____.

(28) The equation of y-axis is _____.

(29) The values of the ordered pair of coordinates _____be interchanged.

(30) The coordinates of a point on x-axis are _____.

(31) The x-coordinate of an ordered pair is called _____ while y-coordinate is called _____.

(32) The distance of a point from the y-axis is called _____.

(33) The coordinates of the origin are _____.

(34) Graph of the line x=a is always parallel to the _____.

(35) Abscissa is _____ to the right of the origin and _____ to the left of the origin.

(36) In the second quadrant x-coordinate is _____while y-coordinate is _____.

(37) In the third quadrant, the sign of both x-and y-coordinates is _____.

(38) The point (3, –1) lies in the _____ quadrant of the coordinate plane.

(39) Find the coordinates of the point which lies on the y-axis at a distance of 4 units from the origin in the negative direction of y-axis.

(40) What is the mirror image of the point (3, 9) on x-axis?

(41) In which quadrants do points have abscissa and ordinate with the same sign?

(42) Name the quadrant in which the following points lie:

(i) (–4, –5) (ii) (–3, 5) (iii) 2, 3 (iv) (4, –1)

(43) Plot the points P (–1, 0), Q (0, 1) and R (2, 3) on the graph paper and check whether they are collinear or not.

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

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

(45) On which axes the following points lie?

(0, 4), (–5, 0), (5, 0) and (0, –3).

(46) 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.

(47) 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.

(48) 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?

(49) Points (0, –1) and (1, 0) lie on which axis.

(50) In which quadrants P (2, –3) and Q (–3, 2) lie?

(51) Give the signs of abscissa and ordinate of a point in quadrant II.

(52) If a person is on the negative side of y-axis at a distance of 3 units form the origin, then find the coordinates of the point.

(53) 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.

(54) 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.

(55) 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.

(56) 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.

(57) 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.

(58) Taking 1 cm = 1 unit on the axes, plot the following points in the Cartesian plane: A (3, 4), B (–3, –4), C (0, –4), D (2, –5), E (2, 0)

(59) Plot the following in the Cartesian plane. Use the scale 1 cm = 1 unit on the axes.

x	–3	0	–1	4	2
y	7	–3.5	–5	4	3

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

x	2	4	–3	–2	3	0
y	4	2	0	5	–3	0

(61) 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.

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

(63) Plot the point P (–5, 3) on a graph paper. Draw PM⊥ x-axis and PN⊥ y-axis. Write the coordinates of M and N.

(64) Plot the points A (4, 4), B (–4, 4) and join OA, OB and BA. What figure do you obtain?

(65) Mark the points on the graph paper:

A (2, 0), B (2, 2), C (0, 2)

Join OA, AB, BC and CO. Name the figure and calculate its area.

(66) Plot the point O (0, 0), B (16, 0), C (16, 12) on the graph paper. Join OB, BC and OC. Name the figure and find its area.

(67) Plot the points P (1, 0), Q (4, 0) and S (1, 3). Find the coordinates of the point R such that PQRS is a square.

(68) Plot the points A (1, 3), B (1, –1), C (7, -1) and D (7, 3) on the graph paper. Join them in order and name the figure so formed. Finds its area.

(69) 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.

(70) 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.

(71) (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.

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