### A. Short Answer Type Questions

- In the adjoining figure find
  - (i) abscissa
  - (ii) ordinate
  - (iii) co-ordinates of point P.



Q.2 Determine

Q.I

- (i) abscissa
- (ii) ordinate
- (iii) co-ordinate of point P in this given figure.



Q.3 Determine

- (i) abscissa
- (ii) ordinate
- (iii) coordinates of point P, in the figure.



Q.4 In the given figure find

- (i) abscissa
- (ii) ordinate
- (iii) co-ordinates of point P.



- Q.5 Write down
  - (i) abscissa
    - (ii) ordinates and
    - (iii) co-ordinates of the points P, Q, R and S in the given figure.



- **Q.6** Draw X-axis and Y-axis and mark the poiont A (3, 9), B (4, -7), C (-8, 9), D (-3, -5), E (4, -2) and F (7, 5)
- Q.7 Draw a trignale PQR whose vertices are P = (1, -6), Q = (7, 4) and R = (-4, 4).
- Q.8 Draw a triangle ABC whose vertices A, B, and C are (-3, 0), (3, 3) and (-3, 3) respectively.
- Q.9 Draw a rectangle ABCD such that its vertices A, B, C and D are (4, 3), (4, -2), (-7, -2) and (-7, 3) respectively.
- Q.10 Draw a rectangle KLMN such that its vertices K, L, M, and N are (5, 0), (5, 3), (0, 3) and (0, 0) respectively.
- Q.11 Construct a square ABCD such that its vertices A, B, C, and D are (1, 2,) (-7, 2), (-7, -6) and (1, -6) respectively.
- Q.12 Construct a square PQRS whose vertices P, Q, R and S are (0, 0), (-4, 0), (-4, -4) and (0, -4) respectively
- Q.13 Draw a parallelogram ABCD whose vertices A, B, C, and D are (-4, 8), (-4, 2), (6, -7) and (6, -1) respectively.

- Q.14 Construct a trapezium PQRS in which vertices P, Q, R and S are (3, 0), (7, 9), (-6, 9) and (-2, 0) respectively.
- Q.15 Draw a rhombus ABCD whose vertices A, B, C and D are (1, 4.5), (-1, 0) (1, -4.5) and (3, 0) respectively
- Q.16 Find the co-ordinates of the vertices of the square ABCD (side 2a)



- (i) Taking AB and AD as axis,
- (ii) Taking the centre of the square as origin and axes parallel to the sides AB, AD.
- Q.17 Show that the points (-4, -1), (-2, -4), (4, 0) and (2, 3) are the vertices points of a rectangle.
- **Q.18** Show that the points A (1, -2), B (3, 6), C (5, 10) and D (3, 2) are the vertices of a parallelogram.
- Q.19 Prove that the points (2, 3), (-4, -6) and (1, 3/2) do not form a triangle
- Q.20 Without plotting the given points on a graph paper indicate the quadrants in which they lie, if
  - (a) ordinate = 6, abscissa = -3
  - (b) ordinate = -6, abscissa = 4
  - (c) abscissa = -5, ordinate = -7
  - (d) ordinate = 3, abscissa = 5
- Q.21 Plot the point P(-6, 3) on a graph paper. Draw PL  $\perp$  x-axis and PM  $\perp$  y-axis. Write the coordinates of L and M.
- **Q.22** Plot the points A(-5, 2), B(3, -2), C(-4, -3) and D(6, 0) on a graph paper.

#### **B.** Long Answer Type Questions

- **Q.23** The three vertices of  $\triangle$ ABC are A(1, 4), B(-2, 2) and C(3, 2). Plot these points on a graph paper and calculate the area of  $\triangle$ ABC.
- Q.24 The three vertices of a rectangle ABCD 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 rectangle ABCD.
- Q.25 The three vertices of a square ABCD are A(3, 2), B(-2, 2) and D(3, -3). Plot these points on a graph paper and hence, find the coordinates of C. Also, find the area of square ABCD.

#### **C.** Fill in the blanks type Questions

- Q.26 The horizontal & the vertical lines drawn in the Cartesian plane to determine the position of a point are respectively, the.....and the.....
- **Q.27** The point of intersection of the x-axis and the y-axis in the Cartesian plane is .....
- Q.28 The x-axis and the y-axis divide the Cartesian plane in .....quadrants
- Q.29 The abscissa of a point on the y-axis is .....
- **Q.30** The ordinate of a point on the x-axis is.....
- **Q.31** If 'A' be point on the negative half of the x-axis such that the distance between A and the origin O is 5 units, then the coordinates of point A are ......
- **Q.32** If the perpendicular distance of a point P from the x-axis is 7 units along the negative direction of the y-axis then the ordinate of P is.....

# **ANSWER KEY**

23.

## A. SHORT ANSWER TYPE QUESTIONS:

1.	(i) 2	(ii) 5	(iii) (2, 5)		
2.	(i) -5	(ii) 2	(iii) (-5, 2)		
3.	(i) –4	(ii) –3	(iii) (-4, -3)		
4.	(i) 6	(ii) –3	(iii) (6, -3)		
5.	(i) 1, -3, -8, 8		(ii) 3, 5, -5, -7		
	(iii) P(1, 3)	, Q (-3, 5), R	(-8, -5), S(8, -7)		





(i) A(0, 0), B(2a, 0), C (2a, 2a), D (0, 2a)
(ii) A (-a, -a), B(a, -a), C(a, a), D(-a, a)

**20.** (a) II (b) IV (c) III (d) I

21.



22.





Area = 5 sq. units.

**24.** D(2, 5), 15 sq units

	C(−3,	5)	Y 4	M	D	
			_4_			
			3_			
	₿(−3,	2)	-2-	L	A(2, 2)	
			1_			
<u>-4</u>	-3 -	2 _	10	1	2 3 4	X

**25.** C(-2, -3), 25 sq units

		4 <b>•</b> Y	
	B(-2, 2)	3	A(3, 2)
	T	-1	
X'		-	
-4 -	3 -2 -	1 O L 1 1	2 3 4
		2	
		2	

- 26. x-axis, y-axis
- 27. Origin O
- **28.** 4
- **29.** 0
- **30.** 0
- **31.** (-5, 0)
- **32.** –7