

## WORKSHEET 2

### CHAPTER 3

#### MCQ

Q1 The measure of angle between the coordinate axes is

- (a)  $0^\circ$       (b)  $90^\circ$       (c)  $180^\circ$       (d)  $360^\circ$

Q2 The area of the triangle formed by the points A (2,0), B (6,0) and C (4,6) is

- (a) 24 sq units      (b) 12 sq units      (c) 10 sq units      (d) none of these

#### ASSERTION AND REASONING

Q3 In the following question a statement of assertion is followed by a statement of Reason. Mark the correct choice as

a if both Assertion and Reason are true and Reason is correct explanation of Assertion.

b. if both Assertion and Reason are true but Reason is not correct explanation of Assertion.

c. if Assertion is true but Reason is false.

d. if Assertion is false but Reason is true.

e) if both Assertion and Reason are false.

Assertion :- The point (3,0) lies on x axis

Reason:- All the points of the form (x,0) lies on x axis

Q4 In the following question a statement of assertion is followed by a statement of Reason. Mark the correct choice as

a if both Assertion and Reason are true and Reason is correct explanation of Assertion.

b.if both Assertion and Reason are true but Reason is not correct explanation of Assertion.

c.if Assertion is true but Reason is false.

d.if Assertion is false but Reason is true.

e) if both Assertion and Reason are false.

Assertion :- The coordinates of origin are (0,0)

Reason:- The coordinate axis divide coordinate plane in four parts called quadrants.

### VERY SHORT ANSWERS

Q5 What is the abscissa of the point (-5,2) ?

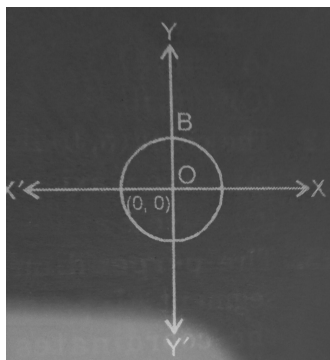
Q6 Name the quadrant in which the point (-3,-4) lies?

### SHORT ANSWERS

Q7 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.

Q8. Plot the points A (-3,2), B(1,-2) and C (9, -10) on the graph paper and find whether they are collinear ?

Q9 The radius of a circle with Centre O is 5 units if O lies on the origin find the coordinates of point B which lies on the circle?



Q10 if the coordinates of a point M are(-2,9) which can also be expressed as  $(1+x, y^2)$  and  $y > 0$  then find in which quadrant the point P(  $x^2$  ,  $y - 1$ ) lies?

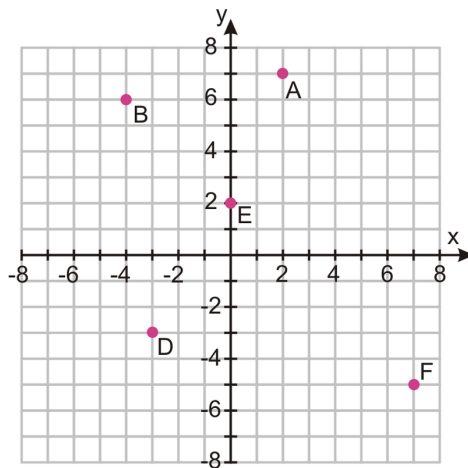
Q11(i) What is the name of horizontal and the vertical lines drawn to determine the position of any point in the Cartesian plane?

(ii) What is the name of each part of the plane formed by these two lines?

(iii) Write the name of the point where these two lines intersect.

### LONG ANSWERS

Q12



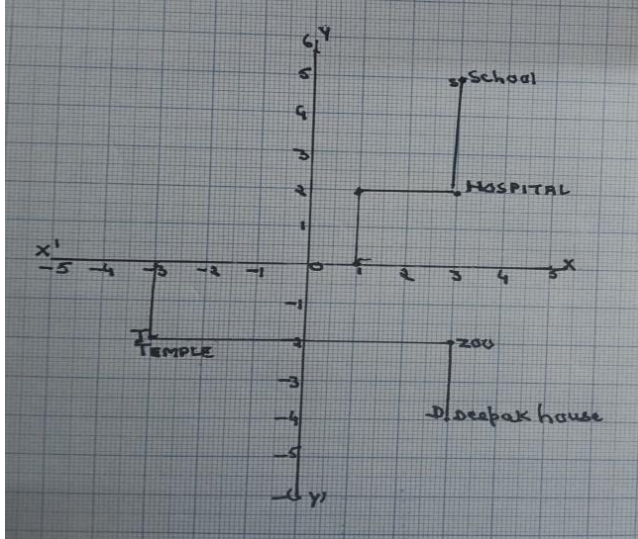
(i) Find the coordinates of point B in the given figure

(ii) what is the abscissa and ordinate of point A?

(iii) what is the distance of point D from x axis and y axis.?

Q13. Mark the points  $(0, 2)$   $(3, 0)$   $(-3, 0)$  and  $(0, -2)$  on a graph. Join these points. Name the figure obtained and find the area of the figure so obtained.

Q14 **CASE STUDY**



In the above picture one small square of size  $1\text{km} \times 1\text{km}$ . From the starting point  $O(0,0)$  Deepak started drive towards his home. He first drives  $3\text{km}$  in left then he turned to his left and drive  $2\text{km}$  there he found a temple. He worshiped there and drove  $6\text{km}$  in the left direction there is a zoo and from the zoo he drives  $2\text{km}$  on the right side then he reached at home.

From  $O$  Sanjay drove his school he drove  $1\text{km}$  to his right then took a left turn and drives  $2\text{km}$  then again took a right turn and drives  $2\text{km}$ . He found a hospital in a way. From hospital he drove  $3\text{km}$  and finally reached his school.

(i) What are the coordinate of the Hospital?

(a)  $(3,2)$

(b)  $(2,3)$

(c)  $(3,3)$

(d)  $(5,5)$

(ii) What is the common abscissa of the Hospital, School, Zoo, and Deepak house?

(a)  $3$

(b) 5

(c) -3

(d) -2

(iii) What is the common ordinate Temple and Zoo?

(a) 3

(b) 5

(c) -3

(d) -2

(iv) Deepak drove in which quadrant

(a) I and II

(b) III and II

(c) III and IV

(d) none of these

(V) Sanjay drove in which quadrant

(a) I ONLY

(b) II and III

(c) III only

(d) II and IV

## ANSWERS

Q1 b

Q2 b

Q3 a

Q4 b

Q5 -5

Q6 III quadrant

7

Q7 (4,3)

Q8 Plot the given points in coordinate plain and join them we get a straight line . So given points are collinear.

Q9 (0,5)

Q10  $1+x=-2$

$x=-3$

$y^2=9$

$y=+3, y=-3$

If  $y=3,$

Then coordinates of point P(9,2) so it will lie in I Quadrant

If  $y=-3,$

Then coordinates of point P(9,-4) so it will lie in IV Quadrant

Q 11 (i)Horizontal Line -x axis

Vertical line – y axis

(ii)Quadrants

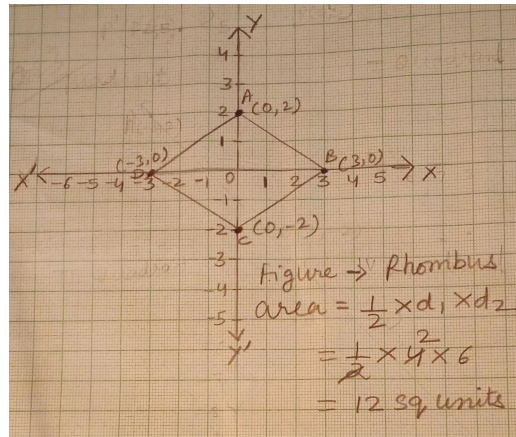
First Quadrant ,Second Quadrant ,Third Quadrant ,Fourth Quadrant

(iii) origin

Q12 (i) (-4,6) (ii)abscissa of point A is 2,Ordinate of point A is 7 (iii)distance of point

D from x axis is 3 units.,distance of point D from y axis is 3 units.

Q13



Q14 (i)a (ii)a (iii)d (iv)c (v)a

PREPARED BY

SWATI GUPTA

TGT MATHS

KV AFS CHANDINAGAR