

## S S LC Top Test Series

KP(G)  
Std 10

Mathematics  
(Chapters 6 & 9)

Time: 45 Mnts  
Score : 20

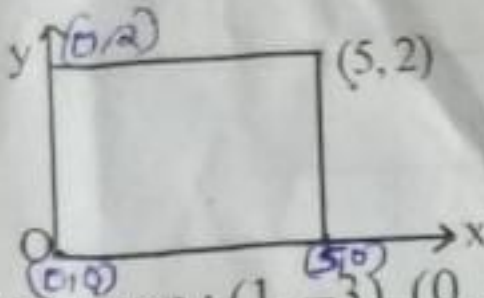
**Instructions:**

- The first 7 minutes are cool-off time.
- Time is spent for reading the question paper you are not suppose to write any thing during cool-off time.
- Read the instructions carefully and attempt this questions.

**Type-A**

Answer any 3 questions from 1 to 4. Each carries 2 marks.

- ✓ 1. Find the co-ordinates of other three vertices of the rectangle?



2. The co-ordinates of some points are given :  $(1, -3), (0, -3), (1, 4), (0, 3)$

- a) Identify the points on y-axis?  
b) Points on a line parallel to x-axis?

- ✗ 3. Find the slope of the line joining  $(2, 3)$  and  $(-1, 3)$ ?

- ✗ 4. The co-ordinates of end points of diameter of a circle are  $(-3, 4)$  and  $(5, 2)$ . Write the co-ordinates of centre?

Answer any 2 questions from 5 to 7. Each carries 3 marks.

5. Can we get a right triangle by joining the points  $(2, 1), (3, 4)$  and  $(-3, 6)$ ?

- ✓ 6. Draw x-axis and y-axis and mark the points:  $(-3, 4), (1, 2), (4, -3), (0, -2), (-1, -4)$ ?

- ✗ 7. The slope of a line is  $1/3$  and  $(2, 3)$  is a point on it.

- a) Write the equation of the line?  
b) Find the co-ordinates of the point which the line cuts x-axis?

Answer any 2 questions from 8 to 10. Each carries 4 marks.

- ✗ 8. P is a point on x-axis which is equidistant from  $A(-3, 2)$  and  $B(3, -6)$ .

- a) Find the co-ordinates of P?  
b) Write the co-ordinates of midpoint of AB?

- ✗ 9. The equation of two lines are given :  $2x - 5y + 4 = 0$  and  $2x + y + 2 = 0$

- a) Is the two lines are parallel?  
b) Find the co-ordinates of the point which the first line cuts the x-axis and the second line cut the y-axis?

- ✗ 10. The equation of a circle is  $x^2 + y^2 - 4x + 6y = 0$ .

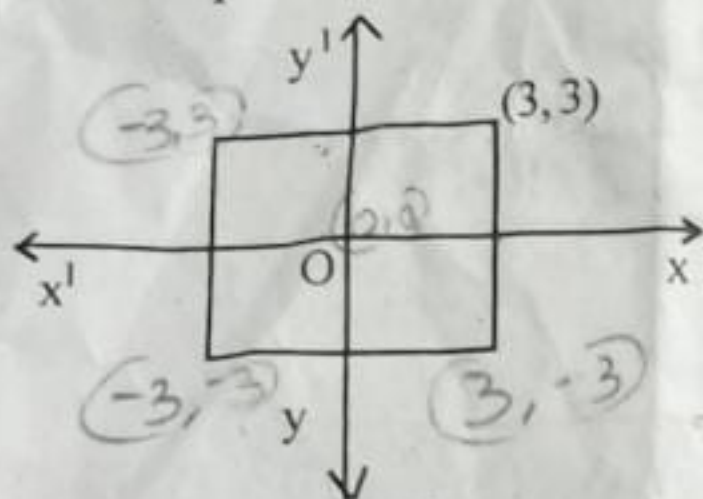
- a) Find the centre?  
b) Calculate the radius?  
c) Is  $(3, -1)$  a point on the circle?

[P.T.O]

**Type-B**

Answer any 3 questions from 1 to 4. Each carries 2 marks.

1. The co-ordinates of a point on the line which is a parallel to y-axis is  $(5, -1)$ . Write the co-ordinates of other two points on the line?
2. Calculate the slope of the line joining  $(3, 1)$  and  $(5, -2)$ ?
3. The centre of the square is origin. Write the co-ordinates of other three vertices?



4. Write the co-ordinates of midpoint of the line joining  $(5, -1)$  and  $(3, -3)$ ?

Answer any 2 questions from 5 to 7. Each carries 3 marks.

5. Check whether the given point are on a line :  $(1, 3)$ ,  $(2, 5)$  and  $(3, 7)$ ?
6. The centre of a circle is at  $(3, 2)$  and  $(-1, 4)$  is a point on it. Write the equation of the circle?
7. Draw x -axis and y-axis and mark the points.  $(0, -4)$ ,  $(-3, 0)$ ,  $(1, 4)$ ,  $(-3, -2)$ ,  $(3, -3)$ ?

Answer any 2 questions from 8 to 10. Each carries 4 marks.

- 8.a) Write the co-ordinate of a point on y-axis. Which is 5 units away from  $(4, 2)$ .
  - b) A circle is drawn as origin is centre and radius is 5 units. Can this circle pass through the point  $(4, 2)$ ?
9. The equation of circle is  $(x-2)^2 + (y+3)^2 = 25$ ;
    - a) Write the co-ordinates of centre?
    - b) Calculate the radius?
    - c) Check whether  $(2, 2)$  is a point on the circle?
  10. The equation of a line is  $2x + 3y + 5 = 0$ 
    - a) Write the co-ordinates of a point which this line cut x-axis?
    - b) Calculate the slope of the line?