

**Section A : Do any five question out of 6 in section A (5 x 5 = 25 marks)**

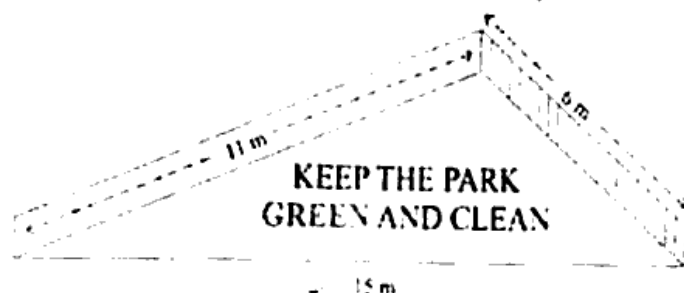
1. Plot the following points on graph

X	2	1	3	4	0
Y	5	3	-1	-2	4

2. The distance (in km) of 40 engineers from their residence to their place of work were found as follows:

5, 3, 10, 20, 25, 11, 13, 7, 12, 31, 19, 10, 12, 17, 18, 11, 32, 17, 16, 27, 9, 7, 8, 3, 5, 12, 15, 18, 3, 12, 14, 2, 9, 6, 15, 15, 7, 6, 12. Construct a grouped frequency distribution table with class size 5 for the data given above taking the first interval as 0-5 (5 not included).

3. There is a slide in a park. One of its side walls has been painted in some colour with a message "KEEP THE PARK GREEN AND CLEAN" the sides of the wall are 15 m, 11 m and 6 m, find the area painted in colors.



4. The length, breadth and height of a room are 5 m, 4 m and 3 m respectively. Find the cost of white washing the walls of the room and the ceiling at the rate of 7.50 per m<sup>2</sup>

5. The following number of goals was scored by a team in a series of 10 matches: 2, 3, 4, 5, 0, 1, 3, 3, 4, 3. Find the mean, median and mode of these scores.

6. Draw the Graph of  $x+y = 4$ .

**Section B: Each Question carry 4 marks each (5x4=20)**

7. Find the total surface area of a cone, if its slant height is 21 m and diameter of its base is 24 m.

8. Find the area of a triangle two sides of which are 18cm and 10cm and the perimeter is 42cm.

9. The following data on the number of girls (to the nearest ten) per thousand boys in different sections of Indian society is given below.

Section	Number of girls per thousand boys
Scheduled Caste (SC)	940
Scheduled Tribe (ST)	970
Non SC/ST	920
Backward districts	950
Non-backward districts	920
Rural	930
Urban	910

10. Draw the graph of  $x + y = 4$ .

11. Sides of a triangle are in the ratio of 12 : 17 : 25 and its perimeter is 540cm. Find its area.

**Section C: Each Question carry 3 marks each (3 x 5 = 15)**

12 Find the surface area of a sphere of radius: 14 cm

13 Find the TSA of a hemisphere of radius 10 cm.

14. 1500 families with 2 children were selected randomly, and the following data were recorded:

Number of girls in a family	2	1	0
Number of families	475	814	211

15. Three coins are tossed simultaneously 200 times with the following frequencies of different outcomes:

Outcome	3 heads	2 heads	1 head	No head
Frequency	23	72	77	28

16 Equal chords of a circle subtend equal angles at the centre.

**Section D: Section D contains 20 question of 1 mark each (20 x 1 = 20)**

17. What is the name of the horizontal line in the Cartesian plane?

18. The x- coordinate is called \_\_\_\_\_ (Abscissa/ordinate).

19. The Y-coordinate is called \_\_\_\_\_ (Abscissa/ordinate).

20. How many quadrants are there in Cartesian plane system?

21. The Probability of an event lies between \_\_\_\_\_.

a) 0-1      b) Greater than 1      c) Less than      d) Above 100

22 The sum of probabilities of all events is: a) 100    b) 1    c) 50    d) 60

23. The centre of circle lies \_\_\_\_\_ (Exterior/Interior) of the circle.

24. The Longest chord of circle is \_\_\_\_\_.

25 Heron's Formula for area of Triangle is \_\_\_\_\_.

26. The angle subtended by the diameter of a semicircle is \_\_\_\_\_ ( $90^\circ$  /  $180^\circ$ ).

27. The highest power of variable in Linear equation is \_\_\_\_\_ ( $1/2/3/4$ ).

28. CSA of right Circular Cylinder is \_\_\_\_\_ (Write formula).

29. The curved surface area of hemisphere is \_\_\_\_\_ (Write formula).

30. The Triangle with two equal sides is called \_\_\_\_\_ triangle. (Equilateral/Isosceles)

31. The smaller sector of a circle is called \_\_\_\_\_ (Major sector /Minor sector).

32 The Mode is the most frequently occurring observation. (True/False).

33. Two congruent triangles have \_\_\_\_\_ area s (Equal /unequal).

34. Surface area of Cuboid is \_\_\_\_\_ (Write formula).

35. Volume of cone \_\_\_\_\_ (Write formula).

36 If  $x + 7 = 9$  Then Value of  $x =$  \_\_\_\_\_.