1. The coordinate of A in the below graph is
(a) $(-7,3)$
(b) $(7,-7)$
(c) $(-6,-1)$
(d) $(2,-3)$
2. The coordinate of $B$ in the below graph is
(a) $(-7,3)$
(b) $(7,-7)$
(c) $(-6,-1)$
(d) $(2,-3)$
3. The coordinate of C in the below graph is
(a) $(-7,3)$
(b) $(7,-7)$
(c) $(-6,-1)$
(d) $(2,-3)$
4. The coordinate of D in the below graph is
(a) $(-7,3)$
(b) $(7,-7)$
(c) $(-6,-1)$
(d) $(2,-3)$

5. The coordinate of E in the given graph is
(a) $(9,-3)$
(b) $(-4,2)$
(c) $(-3,-4)$
(d) $(-7,9)$
6. The coordinate of F in the given graph is
(a) $(9,-3)$
(b) $(-4,2)$
(c) $(-3,-4)$
(d) $(-7,9)$
7. The coordinate of $G$ in the given graph is
(a) $(9,-3)$
(b) $(-4,2)$
(c) $(-3,-4)$
(d) $(-7,9)$
8. The coordinate of H in the given graph is
(a) $(9,-3)$
(b) $(-4,2)$
(c) $(-3,-4)$
(d) $(-7,9)$
9. The coordinate of P in the given graph is
(a) $(2,6)$
(b) $(-6,-7)$
(c) $(6,-2)$
(d) $(6,0)$
10. The coordinate of $S$ in the given graph is
(a) $(2,6)$
(b) $(-6,-7)$
(c) $(6,-2)$
(d) $(6,0)$
11. The coordinate of $R$ in the given graph is
(a) $(2,6)$
(b) $(-6,-7)$
(c) $(6,-2)$
(d) $(6,0)$
12. The coordinate of $T$ in the given graph is
(a) $(2,6)$
(b) $(-6,-7)$
(c) $(6,-2)$
(d) $(6,0)$
13. The coordinate of $U$ in the given graph is
(a) $(9,7)$
(b) $(-4,5)$
(c) $(4,-5)$
(d) none of these
14. The coordinate of $I$ in the given graph is
(a) $(9,7)$
(b) $(-4,5)$
(c) $(4,-5)$
(d) none of these
15. The coordinate of $Q$ in the given graph is
(a) $(9,7)$
(b) $(-4,5)$
(c) $(4,-5)$
(d) none of these
16. If $y$ - coordinate of a point is zero, then this point always lies:
(a) I quadrant
(b) II quadrant
(c) x - axis
(d) $y-a x i s$
17. If $x$ - coordinate of a point is zero, then this point always lies:
(a) I quadrant
(b) II quadrant
(c) x - axis
(d) $y$ - axis
18. Point $(-6,4)$ lies in the quadrant:
(a) I
(b) II
(c) III
(d) IV
19. The point $(-4,-3)$ means:
(a) $x=-4, y=-3$
(b) $x=-3, y=-4$
(c) $x=4, y=3$
(d) None of these
20. Point $(0,4)$ lies on the:
(a) I quadrant
(b) II quadrant
(c) $x$ - axis
(d) $y$ - axis
21. Point $(5,0)$ lies on the:
(a) I quadrant
(b) II quadrant
(c) $x$ - axis
(d) y-axis
22. On joining points $(0,0),(0,2),(2,2)$ and $(2,0)$ we obtain a:
(a) Square
(b) Rectangle
(c) Rhombus
(d) Parallelogram
23. Point $(-2,3)$ lies in the:
(a) I quadrant
(b) II quadrant
(c) III quadrant
(d) IV quadrant
24. Point $(0,-2)$ lies:
(a) on the x -axis
(b) in the II quadrant
(c) on the $y$-axis
(d) in the IV quadrant
25. Abscissa of the all the points on $x$ - axis is:
(a) 0
(b) 1
(c) -1
(d) any number
26. Ordinate of the all the points on $x$ - axis is:
(a) 0
(b) 1
(c) -1
(d) any number
27. Abscissa of the all the points on $y-$ axis is:
(a) 0
(b) 1
(c) -1
(d) any number
28. Ordinate of the all the points on $y-$ axis is:
(a) 0
(b) 1
(c) -1
(d) any number
29. The point whose ordinate is 4 and which lies on $y$ - axis is:
(a) $(4,0)$
(b) $(0,4)$
(c) $(1,4)$
(d) $(4,2)$
30. The perpendicular distance of the point $P(3,4)$ from the $y-$ axis is:
(a) 3
(b) 4
(c) 5
(d) 7
31. Which of the following points lie in I and II quadrants?
$(1,1),(2,-3),(-2,3),(-1,1),(-3,-2),(4,3)$
32. Which of the following points lie on (a) $x$-axis (b) $y$-axis?
$(5,1),(8,0),(0,4),(-3,0),(0,-3),(0,5),(0,0)$
33. If the $x$-cordinate of a point is negative, it can lie in which quadrants?
34. From the figure, write the coordinates of the points $P, Q, R$ and $S$. Does the line joining P and Q pass through origin?
35. Write the coordinates of the following points:
(i) lying on both axes
(ii) lying on $x$-axis and with $x$-coordinate 4
(iii) lying on $y$-axis with $y$-coordinate -3

36. The coordinates of the three vertices of a rectangle ABCD are $\mathrm{A}(3,2), \mathrm{B}(-4,2)$, $C(-4,5)$. Plot these points and write the coordinates of $D$.
37. ABC is an equilateral triangle as shown in the figure. Find the coordinates of its vertices

38. Plot the following points on a graph paper:

| $x$ | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $y$ | 5 | 8 | 11 | 14 | 17 |

Join these points. What do you observe ?
9. What is the name of horizontal and the vertical lines drawn to determine the position of any point in the Cartesian plane?
10. What is the name of each part of the plane formed by these two lines?
11. Write the name of the point where these two lines intersect.
12. Locate the points $(5,0),(0,5),(2,5),(5,2),(-3,5),(-3,-5),(5,-3)$ and $(6,1)$ in the Cartesian plane.
13. Plot the following ordered pairs of number $(x, y)$ as points in the Cartesian plane. Use the scale $1 \mathrm{~cm}=1$ unit on the axes.

| $\mathbf{x}$ | -3 | 0 | -1 | 4 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{y}$ | 7 | -3.5 | -3 | 4 | -3 |

14. In which quadrant or on which axis do each of the points $(-2,4),(3,-1),(-1,0),(1,2)$ and ( -$3,-5)$ lie? Verify your answer by locating them on the Cartesian plane.
15. Plot the points $(x, y)$ given in the following table on the plane, choosing suitable units of distance on the axes.

| $\mathbf{x}$ | -1 | 2 | -4 | 2 | -3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{y}$ | 0 | -5 | 2 | 1 | 2 |

16. Plot the following points and verify if they lie on a line. If they lie on a line, name it.
(i) $(0,2),(0,5),(0,6),(0,3.5)$
(ii) $\mathrm{A}(1,1), \mathrm{B}(1,2), \mathrm{C}(1,3), \mathrm{D}(1,4)$
(iii) $\mathrm{K}(1,3), \mathrm{L}(2,3), \mathrm{M}(3,3), \mathrm{N}(4,3)$
(iv) $\mathrm{W}(2,6), \mathrm{X}(3,5), \mathrm{Y}(5,3), \mathrm{Z}(6,2)$
17. Draw the line passing through $(2,3)$ and $(3,2)$. Find the coordinates of the points at which this line meets the $x$-axis and $y$-axis.
18. Plot the following points on a graph sheet. Verify if they lie on a line
(a) $\mathrm{A}(4,0), \mathrm{B}(4,2), \mathrm{C}(4,6), \mathrm{D}(4,2.5)$
(b) $\mathrm{P}(1,1), \mathrm{Q}(2,2), \mathrm{R}(3,3), \mathrm{S}(4,4)$
(c) $\mathrm{K}(2,3), \mathrm{L}(5,3), \mathrm{M}(5,5), \mathrm{N}(2,5)$
19. In which quadrant or on which axis do each of the points $(5,0),(0,5),(2,5),(5,2),(-3,5),(-3$, $-5),(5,-3)$ and $(6,1)$ in the Cartesian plane.
20. Plot the points $A(4,4)$ and $(-4,4)$ on a graph sheet. Join the lines $O A, O B$ and BA. What figure do you obtain.
21. The given graph describes the distances of a car from a city P at different times when it is travelling from City P to City Q, which are 350 km apart. Study the graph and answer the following:
(i) What information is given on the two axes?
(ii) From where and when did the car begin its journey?
(iii) How far did the car go in the first hour?
(iv) How far did the car go during (i) the 2nd hour? (ii) the 3rd hour?
(v) Was the speed same during the first three hours? How do you know it?
(vi) Did the car stop for some duration at any place? Justify your answer.
(vii) When did the car reach City Q?


Time $\rightarrow$
22. The following line graph shows the yearly sales figures for a manufacturing company.
(a) What were the sales in (i) 2002 (ii) 2006 ?
(b) What were the sales in (i) 2003 (ii) 2005?
(c) Compute the difference between the sales in 2002 and 2006.
(d) In which year was there the greatest difference between the sales as compared to its previous year?

23. Use the tables below to draw linear graphs.
(a) The number of days a hill side city received snow in different years.

| Year | 2003 | 2004 | 2005 | 2006 |
| :---: | :---: | :---: | :---: | :---: |
| Days | 8 | 10 | 5 | 12 |

(b) Population (in thousands) of men and women in a village in different years.

| Year | 2003 | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Men | 12 | 12.5 | 13 | 13.2 | 13.5 |
| Number of Women | 11.3 | 11.9 | 13 | 13.6 | 12.8 |

24. Plot the point $(4,3)$ on a graph sheet. Is it the same as the point $(3,4)$ ?
25. The following table gives the quantity of petrol and its cost. Plot a graph to show the data.

| No. of litres of petrol | 10 | 15 | 20 | 25 |
| :---: | :---: | :---: | :---: | :---: |
| Cost of petrol in Rs. | 500 | 750 | 1000 | 1250 |

26. A bank gives $10 \%$ Simple Interest (S.I.) on deposits by senior citizens. Draw a graph to illustrate the relation between the sum deposited and simple interest earned. Find from your graph
(a) the annual interest obtainable for an investment of Rs 250.
(b) the investment one has to make to get an annual simple interest of Rs 70.
27. Ajit can ride a scooter constantly at a speed of $30 \mathrm{kms} /$ hour. Draw a time-distance graph for this situation. Use it to find
(i) the time taken by Ajit to ride 75 km . (ii) the distance covered by Ajit in $3 \frac{1}{2}$ hours.
28. Draw the graphs for the following table of values, with suitable scales on the axes.

| Time (in hours) | 6 am | 7 am | 8 am | 9 am |
| :---: | :---: | :---: | :---: | :---: |
| Distances (in km) | 40 | 80 | 120 | 160 |

Distance travelled by a car
(i) How much distance did the car cover during the period 7.30 a.m. to 8 a.m?
(ii) What was the time when the car had covered a distance of 100 km since it's start?

