INTRODUCTION TO GRAPHS

COORDINATES

Coordinates

In a plane we require positions of a point in horizontal & vertical direction

(or in x & y direction respectively). These positions are called coordinates or Cartesian coordinates of a point.

Eg: If a point covers 3 unit distance in +x direction and 4 units in +y direction then coordinates of point are (3, 4).

Here 3 is x coordinate or abscissa and 4 is y coordinate or ordinate.



Note :

These two axes (lines) are perpendicular to each other and divide a paper (plane) in four equal parts, each part is called quadrant.



Coordinate of origin O are (0, 0).

Coordinate can be +ve or -ve.

Sign system in quadrant as follows.

CLASS 8



on x-axis, ordinate (y part) of any point is always 0.

Eg. (-5, 0) (2, 0) (7, 0) etc. are on x axis

On y axis, abscissa (x part) of any point is always 0.

- **Eg.** (0, 7) (0, 3/2) (0, -5) etc are on y axis.
- **Ex.1** Find the location of the following points. (-3, 4), (2, 7), (0, 3), (-5, -2), (3, -8), (-7, -11), (9, 0), (0, 0)
- **Sol.** II quadrand, Iq, on y axis, IIIq, IVq, IIIq, on x axis, origin.