## STRAIGHT LINES

## **GENERAL EQUATION OF A LINE**

## EXERICSE

- Q.1 reduce each of the following into slope- intercept form and find their slopes and y- intercepts:
  - (i) 7x+3y-6=0 (ii) 3x+3y=5 (iii) y=0
- **Q.2** reduce the equation x+2y=3 to the intercept form.
- **Q.3** reduce each of the following to the perpendicular form and find 'p' (i)3x - 4y + 10 = 0 (ii) $\sqrt{3}x + y - 8 = 0$
- **Q.4** A line forms a triangle with co-ordinate axes. If the area of this triangle is  $54\sqrt{3}$  square units and the perpendicular drawn from the origin to the line makes an angle of 60° with the x-axis, find the equation of the line.

## **ANSWER KEY**

1. (i) 
$$y = \frac{-7}{3}x + 2; -\frac{7}{2}, 2$$
  
(ii)  $y = -x + \frac{5}{3}; -1, \frac{5}{3}$   
(iii)  $y = 0, x + 0; 0, 0$   
2.  $\frac{x}{3} + \frac{y}{\frac{3}{2}} = 1$   
3. (i)  $\frac{-3}{5}x + \frac{4}{5}y = 2; p = 2$   
(ii)  $\frac{\sqrt{3}}{2}x + \frac{1}{2}y = 4; p = 4$   
4.  $x + \sqrt{3}y + 18 = 0, x + \sqrt{3}y - 18 = 0$