STRAIGHT LINES

VARIOUS FORMS OF THE EQUATION OF A LINE

EXERCISE

Q.1 Find the equation of the st. line passing through the points.

(i) (–1,–2) and (–5,–2)   (ii) (1,–1) and (3,5)

Q.2 The vertices of a triangle are the points (2,1),(–2,3)and (4,5). Find the equation of its sides.

Q.3 (i) Find the equation of the st. line, which passes through the point (0. 1) and has an inclination of 60°.

(ii) Find the equation of the straight line, which passes through (2, 2) and is inclined to x-axis at 45°.

Q.4 P (a, b) is the mid-point of a line segment between axes. Show that equation of the line is $\dfrac{x}{a} + \dfrac{y}{b} = 2$

Q.5 Find the equation of the straight line, which:

(i) intersects x-axis at a distance of 3 units to the left of the origin with slope -2.

(ii) intersects y-axis at a distance of 2 units above the origin and making an angle of 30° with positive direction of x-axis.

ANSWER KEY

1.   (i) y+2=0   (ii)–3x+y+4=0

2.   x + 2y –4=0,   x – 3y + 11=0,   2x – y – 3 =0

3.   (i)$\sqrt{3}$x–y+1=0   (ii) x – y =0

5.   (i)2x+y+6=0   (ii)x–$\sqrt{3}y$+2$\sqrt{3}$=0