STRAIGHT LINES

DISTANCE OF A POINT FROM A LINE

EXERCISE

Q.1   Find the equation of the line, which is equidistant from parallel line

$9x + 6y – 7 = 0$ and $3x + 2y + 6 = 0$

Q.2   Find the length of the perpendicular from the vertex B of ΔABC to the median through C if A is (-10, -13), B is (-2, 3) and C is (2, 1).

Q.3   Classify the following pairs of lines as coincident, parallel, perpendicular or intersecting :

(i)   6x+14y-160, 12x+28y-32=0

(ii)   3x-4y=8,   3x + 4y = 11

(iii)   5x-2y=7,   2y-5x=-7

Q.4   Show that the origin is equidistant from the three straight lines:

$4x + 3y + 10 = 0$, $5x - 12y + 26 = 0$ and $7x + 24y = 50$

ANSWER KEY

1. $18x + 12y + 11 = 0$

2.   4

3.   (i)   coincident

(ii)   Intersecting

(iii)   Coincident