



Consider the lines given by

$$L_1: x + 3y - 5 = 0$$

$$L_2: 3x - ky - 1 = 0$$

$$L_3: 5x + 2y - 12 = 0$$

Solution:

$$\Rightarrow 12k + 2 + 93 - 30 - 25k = 0$$

$$\Rightarrow 65 - 13k = 0$$

$$\Rightarrow k = 5$$

(A) \rightarrow (s)

(B) One of L_1, L_2, L_3 is parallel to at least one of the other two, if

$$\frac{3}{k} = -\frac{1}{3} \text{ or } -\frac{5}{2}$$

$$k = -9 \text{ or } -\frac{6}{5}$$

(B) \rightarrow (p), (q)

COLUMN I	COLUMN II
(A) L_1, L_2, L_3 are concurrent, if	(p) $k = -9$
(B) One of L_1, L_2, L_3 is parallel to at least one of the other two, if	(q) $k = -\frac{6}{5}$
(C) L_1, L_2, L_3 form a triangle, if	(r) $k = \frac{5}{6}$
(D) L_1, L_2, L_3 do not form a triangle, if	(s) $k = 5$