If the system of equations : $2x + y = 1$; $kx + 3y + 5 = 0$; $x - 2y = 3$ is consistent , then the value of k is :

Solution:

For consistent system : $\Delta = 0$

$$\begin{vmatrix} 2 & 1 & 1 \\ k & 3 & -5 \\ 1 & -2 & 3 \end{vmatrix} = 0$$

$$\Rightarrow -5k + 30 - 40 = 0$$

$$\Rightarrow k = -2$$

A. 5

B. -2

C. 3

D. -7

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