

Que1

A survey shows that 73% of the persons working in an office like coffee, whereas 65% like tea. If x denotes the percentage of them, who like both coffee and tea, then x cannot be :

- (a) 63
- (b) 36
- (c) 54
- (d) 38

solution:

(b) Given, $n(C) = 73$, $n(T) = 65$, $n(C \cap T) = x$

$$\therefore 65 \geq n(C \cap T) \geq 65 + 73 - 100$$

$$\Rightarrow 65 \geq x \geq 38 \Rightarrow x \neq 36.$$