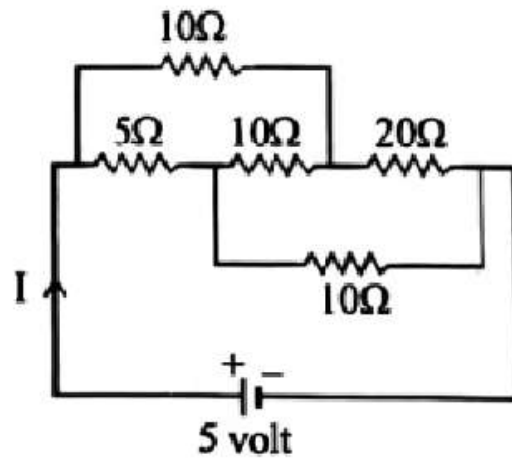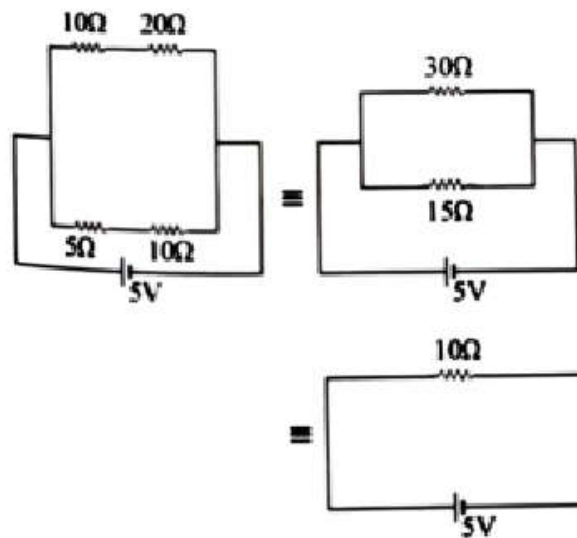# Q 05

The current I drawn from the 5 volt source will be   [2006]

(a) 0.33 A   (b) 0.5 A   (c) 0.67 A   (d) 0.17 A

ans

(b) The network of resistors is a balanced wheatstone bridge. The equivalent circuit is

$$R_{eq} = \frac{15 \times 30}{15 + 30} = 10 \ \Omega$$

$$\Rightarrow \quad I = \frac{V}{R} = \frac{5}{10} = 0.5 \ A$$