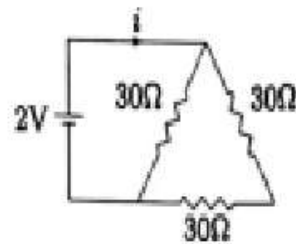


Q 15

The current i in the circuit (see figure) is (1983)



(A) $1/45$ A (B) $1/15$ A (C) $1/10$ A (D) $1/5$ A

Sol. The effective resistance of the given circuit is

$$R_e = (30 + 30) \parallel 30 = 60 \parallel 30 \\ = \frac{30 \times 60}{30 + 60} = 20 \Omega.$$

Thus, current $i = V/R_e = 2/20 = 1/10$ A.
Ans. C ⊖