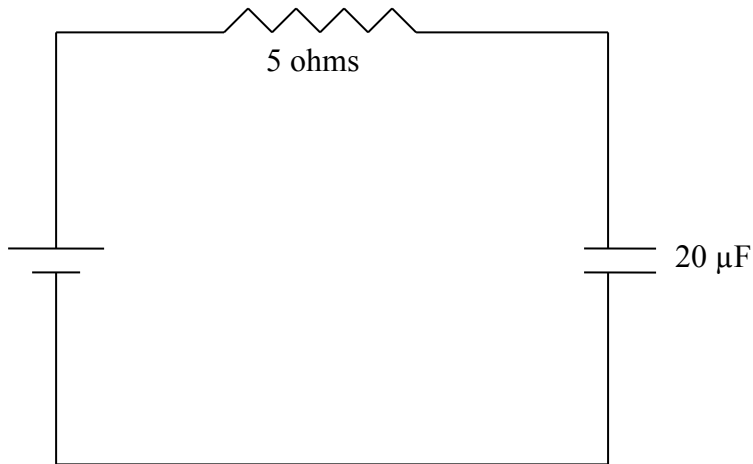


TOPIC

Electricity and Magnetism – Section XI – Question 3

QUESTIONFor the circuit shown, the time constant τ in seconds is

- (A) 1.0×10^{-4}
- (B) 5.0×10^{-4}
- (C) 4.0×10^{-6}
- (D) 2.4×10^{-4}

**HINT**The time constant, τ is given by

$$\tau = RC$$

SOLUTION

$$\begin{aligned} &= (5)(20 \times 10^{-6}) \\ &= 10^{-4}\text{s} \end{aligned}$$

ANSWER

(A)

CONTRIBUTOR

Autar Kaw