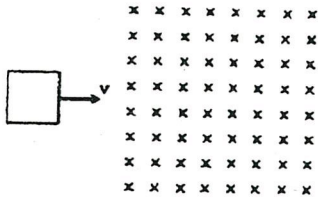
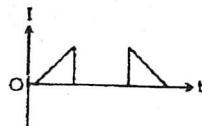
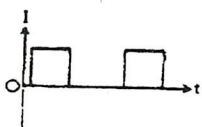
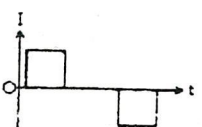
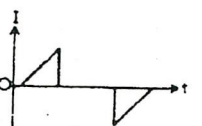
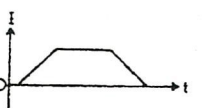


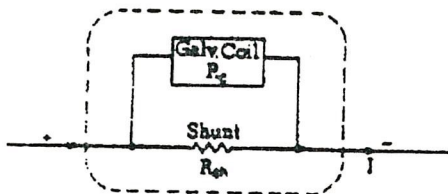
No. 60



A square loop of conducting wire is moved with constant speed v from a field-free region into a region of uniform magnetic field and then out again into a field-free region. Which of the following graphs best depicts the current I in the loop as a function of time t ?

- (A) 
- (B) 
- (C) 
- (D) 
- (E) 

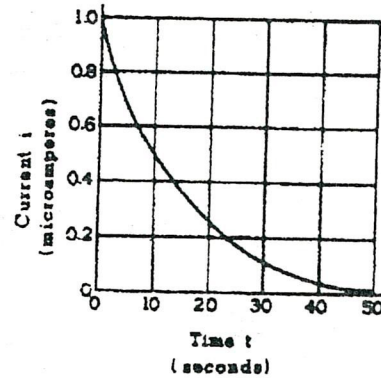
No. 61



The diagram above represents a galvanometer modified to be used as an ammeter with a full-scale reading of 10.0 A. The meter movement or coil has a resistance R_c of 20.0Ω and requires 1.0 mA for full-scale deflection. The shunt resistance R_{sh} must be approximately

- (A) $2.0 \times 10^{-6} \Omega$
 (B) $1.0 \times 10^{-3} \Omega$
 (C) $2.0 \times 10^{-3} \Omega$
 (D) 20Ω
 (E) $2.0 \times 10^3 \Omega$

No. 62



The graph above shows the current I in a circuit plotted as a function of time t while a capacitor with capacitance C is being charged in series with a resistor of resistance R . Which of the following can be concluded?

- (A) The period of oscillation of the circuit is about 20 sec.
 (B) The time constant of the circuit is about 10 sec.
 (C) R must be about 10^6 ohms.
 (D) C must be about 0.7 microfarad.
 (E) The product RC must be about 14 sec.