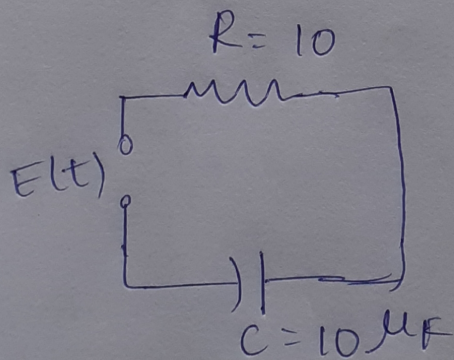


Q5)



$$R \frac{dQ}{dt} + \frac{1}{C} Q = E(t)$$

$$\therefore \ddot{Q} = \frac{1}{R} (E(t) - \frac{1}{C} Q)$$