ELECTRICAL ENGINEERING

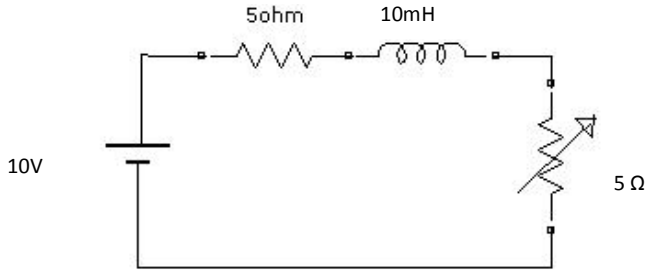
1. Voltage across the resistance in R-L-C circuit at resonant frequency is

   (A) Much higher than applied voltage (B) Much lower than applied voltage

   (C) Function of L/C ratio (D) Equal to applied voltage

2. A parallel plate capacitor has a capacitance of 2μF. If one of the sides of the plate is doubled and the distance between them is halved. The capacitance of the capacitor is

   (A) 1μF (B) 0.5μF (C) 2μF (D) 8μF



3. In the above circuit, the current at 1ms after switching on is

   (A) 1.0 A (B) 0.63A (C) 0.37 A (D) 0.5A

4. In the above circuit the voltage across the inductor at t=0 and t=∞ are respectively

   (A) 0V, 10V (B) 10V, 0V (C) 0V, 5V (D) 5V, 0V

5. The combined inductance of two coils connected in series, are 1.2H or 0.2H depending on the relative directions of the current in the coils. The mutual inductance of the coils is

   (A) 0.25H (B) 1.4H

   (C) 1.0H (D None of the above

SPACE FOR ROUGH WORK