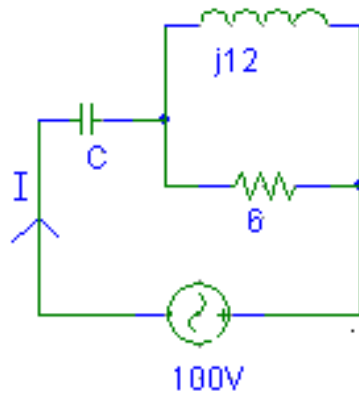


**Unit I: Assessment Question Bank****Lecture -32**

1. The circuit shown in figure operates at a frequency of 50Hz. Determine the value of  $C$  such that the input voltage  $V$  and the input current  $I$  are in the same phase



2. Branch A of a parallel circuit consists of an inductive coil with resistance  $50\Omega$  and inductor of  $0.1\text{H}$  and branch B consists of a resistor of  $45\Omega$  in series with a capacitor of  $100\mu\text{F}$ . Calculate the current, power and power factor of the circuit when the supply voltage is  $230\text{V}$ ,  $50\text{Hz}$ .