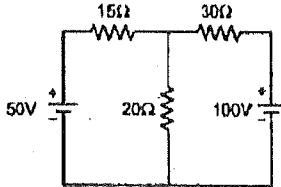


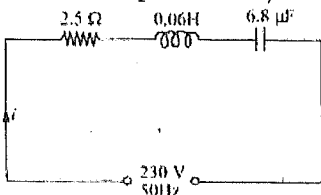
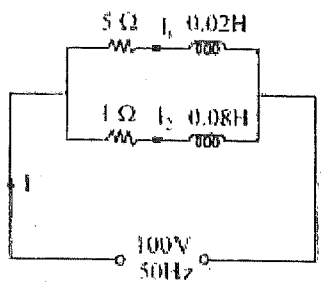
Total No. of Printed Pages: 2

G.R. No.	
----------	--

PAPER CODE	V124-393
------------	----------

- 1) Figures to the right indicate full marks.
- 2) Use of scientific calculator is allowed.
- 3) Use suitable data wherever required.
- 4) Solve any two sub questions from Question 1 and 2.

Question No.	Question Description	Marks	CO mapped	Blooms Taxonomy Level
Q.1	<p>a) Calculate current through $15\ \Omega$ resistance in the circuit shown in Fig. 1 using superposition Theorem.</p>  <p style="text-align: center;">Fig. 1</p>	[5]	CO1	Apply
	<p>b) Determine power consumed by $20\ \Omega$ resistance in the circuit shown in Fig. 1 using Thevenin's theorem.</p>	[5]	CO1	Apply
	<p>c) Find voltage drop across $30\ \Omega$ resistance in the circuit shown in Fig. 1 using Kirchhoff's laws.</p>	[5]	CO1	Apply

Q.2	<p>a) For the circuit shown in Fig. 2, calculate total current of the circuit. (express current in rectangular as well as polar form)</p>  <p style="text-align: center;">Fig. 2</p> <p>b) Derive an expression for current drawn and power consumed by a circuit consisting of a resistor 'R' and capacitor 'C' connected in series across $v = V_m \sin \omega t$ supply.</p> <p>c) For the circuit shown in Fig. 3, calculate currents I_1 and I_2 in the circuit.</p>  <p style="text-align: center;">Fig. 3</p>	[5]	CO2	Apply
		[5]	CO2	Understand
		[5]	CO2	Apply