



VIT[®]

Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

Vellore - 632014, Tamil Nadu, India

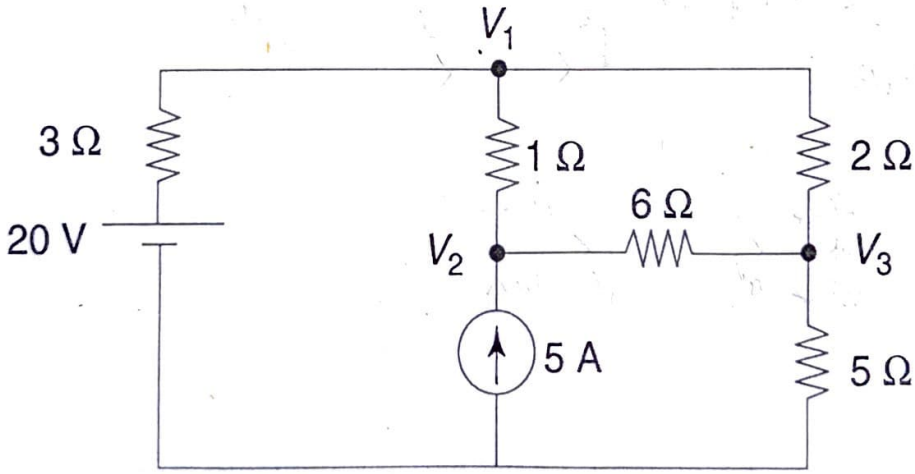
SCHOOL OF ELECTRICAL ENGINEERING FALL SEMESTER 2025-2026

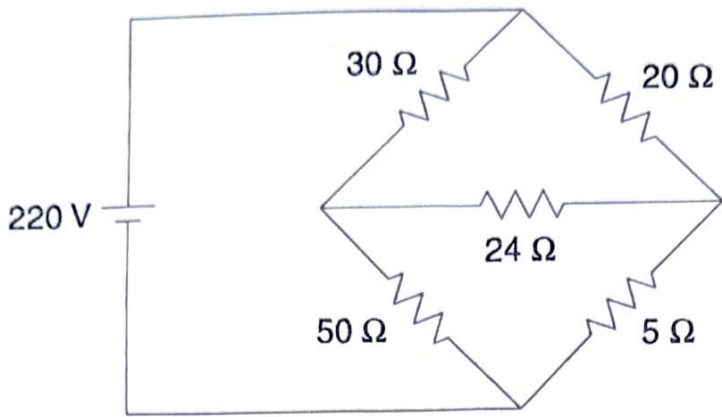
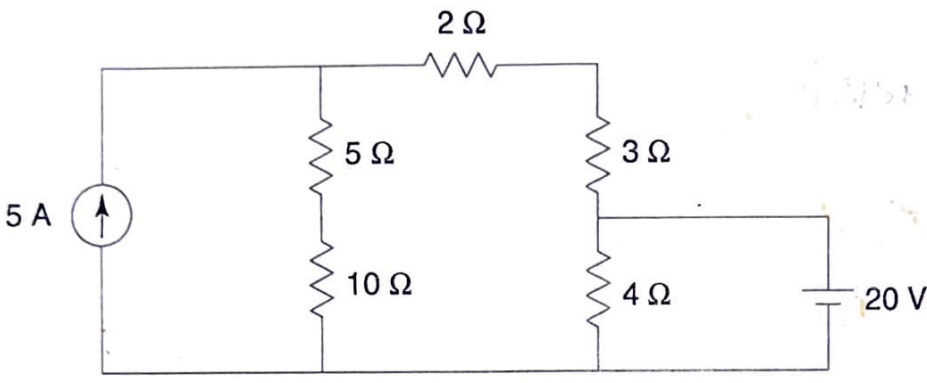
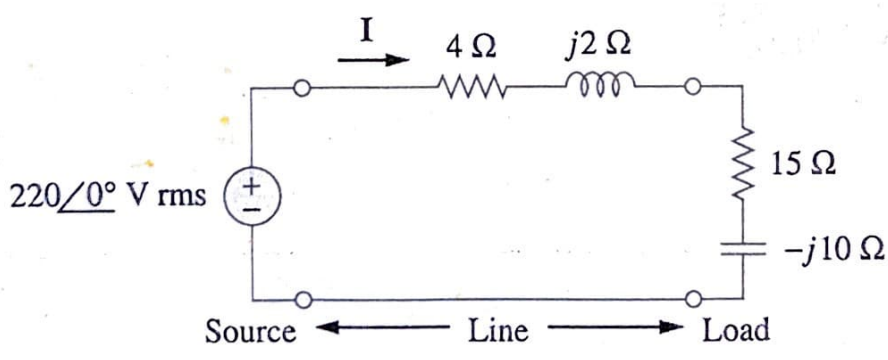
CAT-I

SLOT: C1+TC1

Programme Name & Branch:	B.Tech.	Course Code:	BAEEE101
Course Name:	Basic Engineering	Class Number(s):	VL2025260106180, 190, 178, 188, 192, 186, 184, 809
Faculty Members:	MRUTUNJAYA PANDA; RAJESH KUMAR LENKA, MEDARAMETLA PRAVEENKUMAR, DHANAMJAYULU C, ANBARASAN P, SARAVANAKUMAR R, MONICA SUBASHINI M, VIJAYAKUMAR D,	Duration:	90 Mins
Date of the Examination:		Max. Marks:	50

General Instructions: Answer all the questions

Q. No	Questions	Marks	CO	BL
1.	Use node voltage method, find the power dissipated in the 6 ohm resistor for the network given below. 	10	1	3

2.	Determine the current through the 24 ohm resistor in the given network below using Thevenin's theorem. 	10	1	3
3.	Find the current through the 3 ohm resistor for the figure given below using superposition theorem. 	10	1	3
4.	Figure below shows a load being fed by a voltage source through a transmission line. The impedance of the line is represented by the $(4+j2)$ ohms impedance and a return path. Find the real power and reactive power absorbed by: (a) the source, (b) the line, and (c) the load. 	10	1	2
5.	a). Explain the working principle of a DC motor and construction. b). What are the applications of DC motor.	10	1	2