VIT®

Vellore Institute of Technology

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

School of Electrical Engineering

Winter Semester 2022-2023

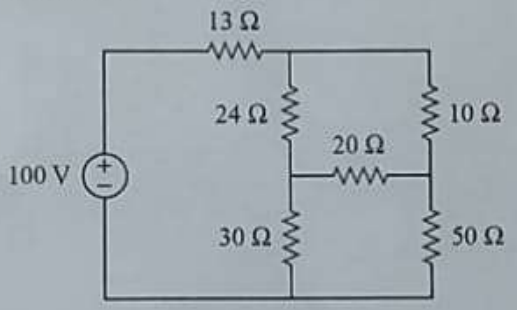
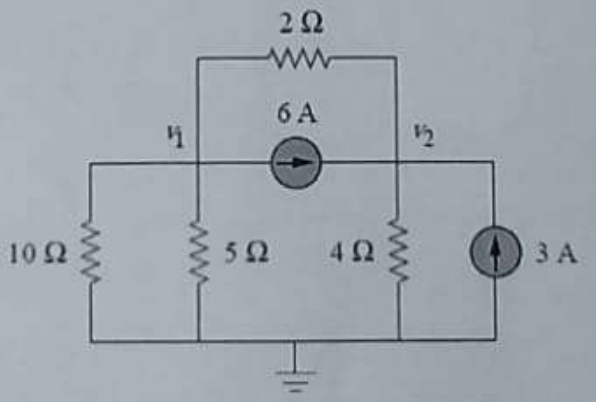
CAT – I

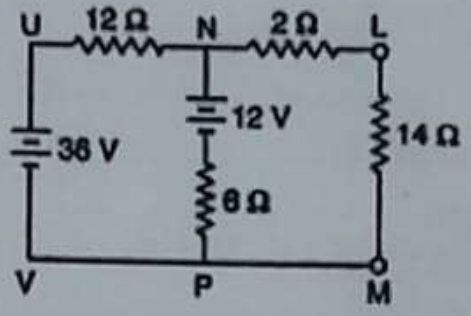
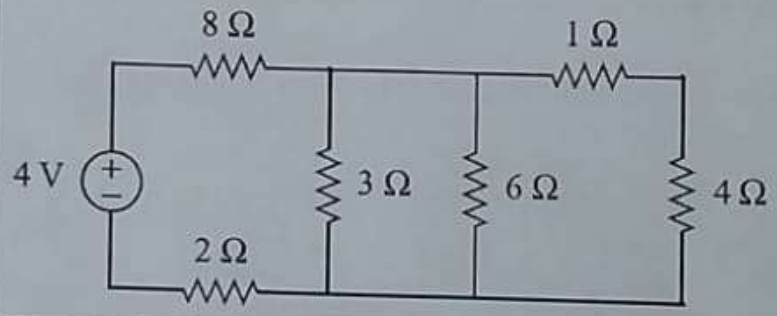
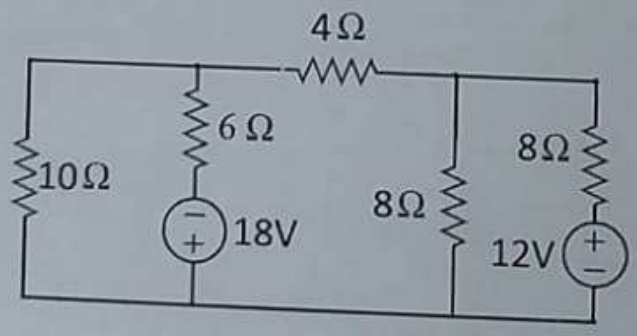
Programme Name & Branch: M.Tech.(Integrated) Software Engineering

Course Name & code: EEE1019 – Foundations of Electrical and Electronics Engineering

Class Number (s): VL2022230500451, VL2022230500490
Slot: A2
Faculty Name (s): Yuvapriya T, Joshua Sunder David Redidpogu
Exam Duration: 90 Min. **Maximum Marks: 50**

General instruction(s): Answer ALL questions

Q.No.	Question	Max Marks
1.	Determine the current in all branches of the circuit shown in the figure. Use mesh current method. 	10
2.	For the circuit shown in the figure below, obtain V_1 and V_2 using nodal analysis. 	10

3.	Using Thevenin's theorem, calculate the potential difference across terminal L and M. 	10
4.	Find the voltage drop across 4 ohm resistor using Norton's theorem for the circuit shown in the figure. 	10
5.	Using the superposition theorem, find the current through the 4 ohm resistor for the circuit shown in figure. 	10