D Y PATIL DEEMED TO BE UNIVERSITY — RAMRAO ADIK INSTITUTE OF TECHNOLOGY NAVI MUMBAI

RAMRAO ADIK INSTITUTE OF TECHNOLOGY
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Assignment -1

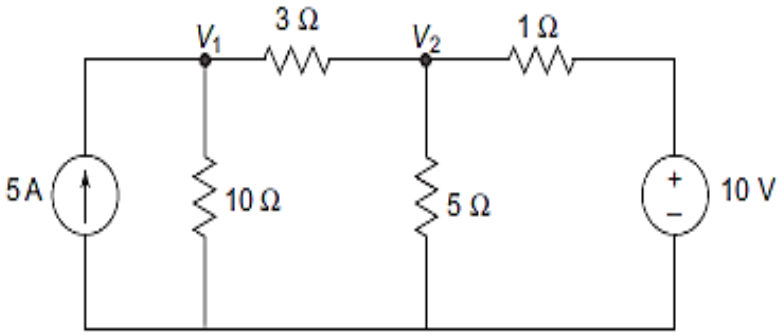
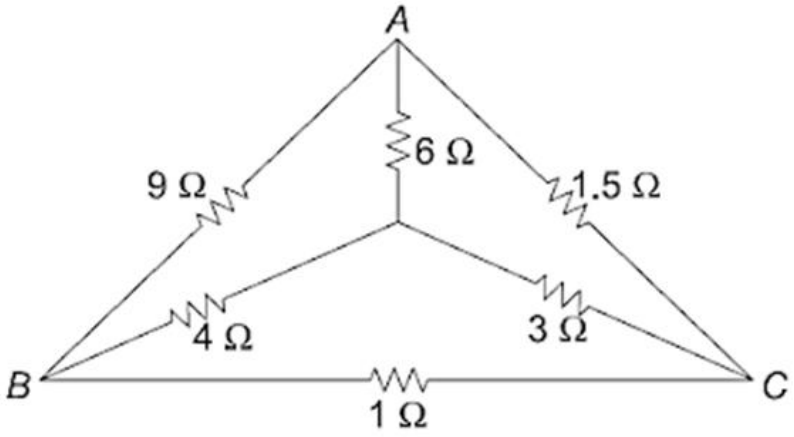
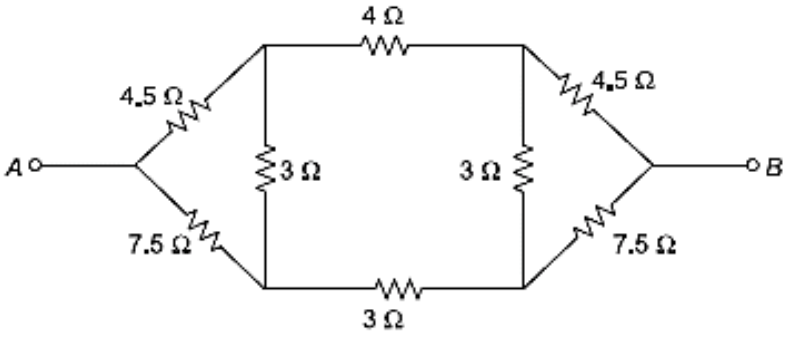
Academic Year 2024-25

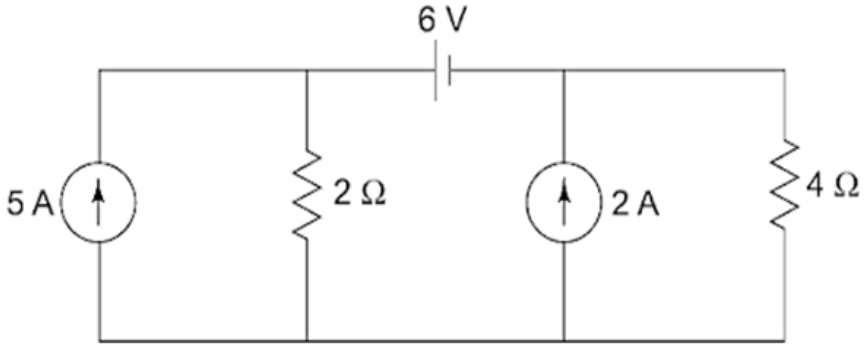
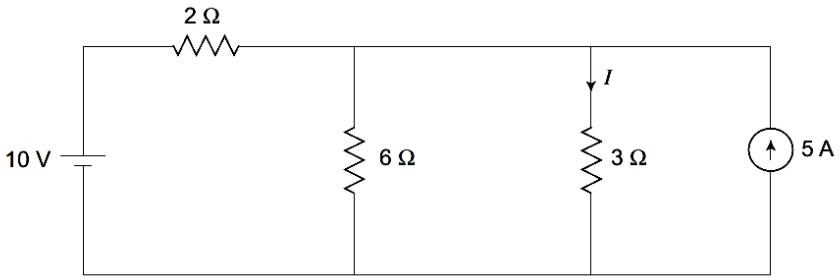
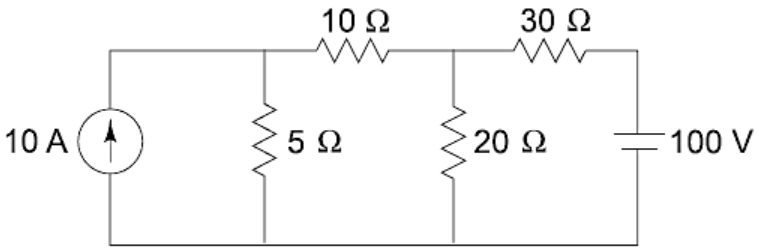
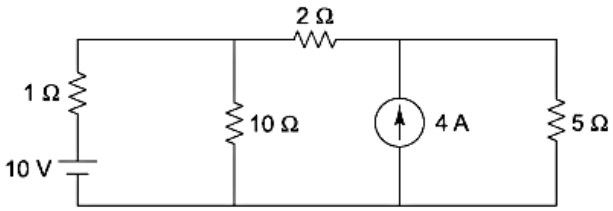
Course Code: **2413FEE1T2** Course Name: **BEE**

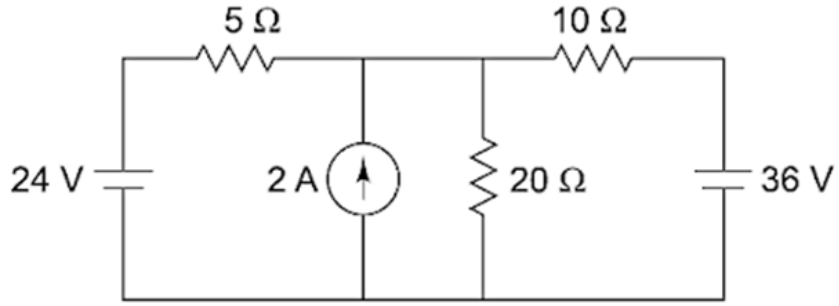
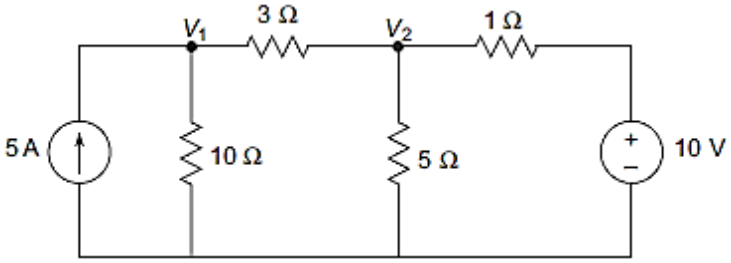
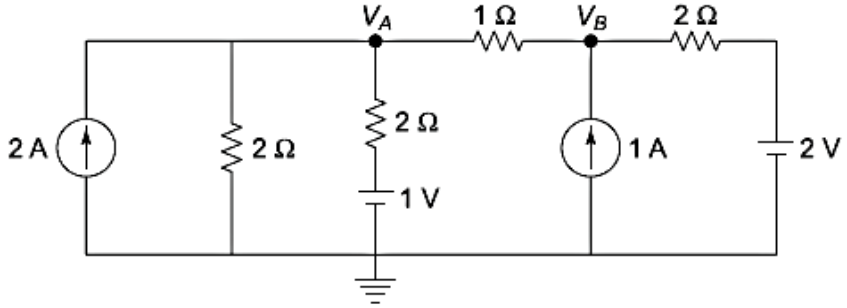
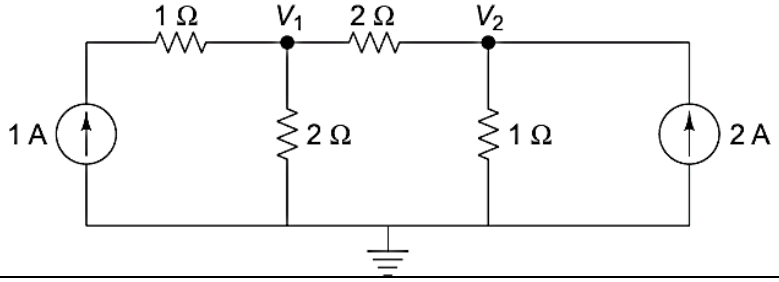
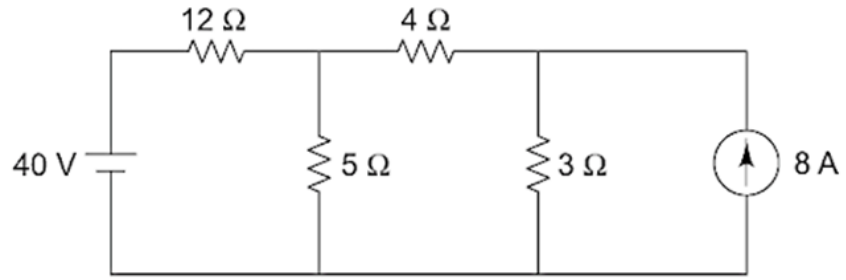
Date of Assignment: **24/09/2025** Date of Submission: **06/10/2025**

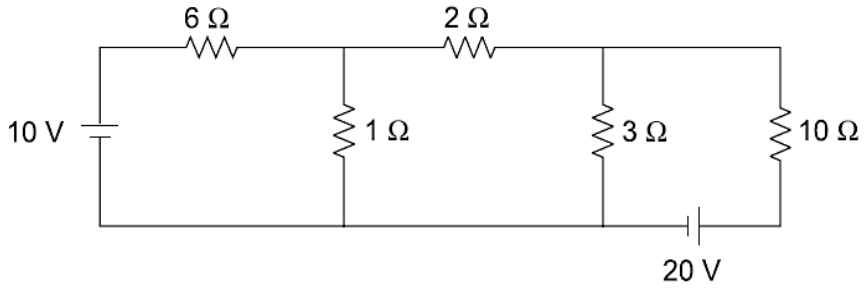
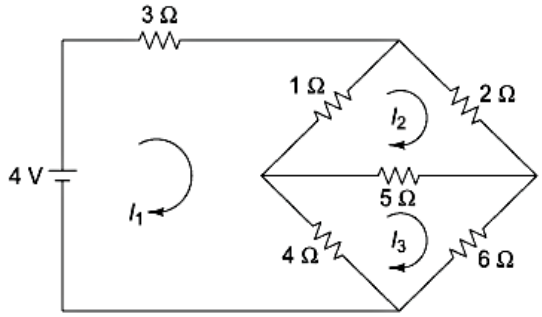
CO1 and CO6

All questions compulsory (5M)

1.	Evaluate the current through the 3Ω resistor in the network shown in figure below using node analysis. 
2.	Find an equivalent resistance between terminals A and B. 
3.	Find an equivalent resistance between terminals A and B. 

4.	Find the value of current flowing in the 4 Ω resistor using source transformation. 
5.	Find the value of current flowing through 3 Ω resistor using source transformation. 
6.	Find the value of current flowing through the 10 Ω resistor using Thevenin's Theorem 
7.	Using Superposition Theorem, find the values of current flowing in the 10 ohm resistor. 
8.	Evaluate the current flowing through the 5 Ω resistor using Superposition Theorem

	
9.	Evaluate the current through the 3Ω resistor in the network shown in figure below using node analysis. 
10.	Using Node Analysis, find VA and VB 
11.	*Evaluate the current flowing through the 2Ω resistor in the network shown in figure below using node analysis.* 
12.	Find the value of current flowing through the 4 Ω resistor using mesh analysis. 

13.	Evaluate the current flowing through the 2Ω resistor in the network shown below using mesh analysis. 
14.	Using Mesh analysis: find the values of current supplied by the battery. 
15.	Explain different types of cables used for electrical installation.
16.	What is the purpose of earthing in electrical installation? Explain different types of electrical earthing.
17.	Give the difference between MCB and MCCB.
18.	Write short note on Switchgears