

**VIT**

Vellore Institute of Technology

SCHOOL OF ELECTRONICS ENGINEERING
CONTINUOUS ASSESSMENT TEST - I
WINTER SEMESTER 2025-2026

REG. NO.:

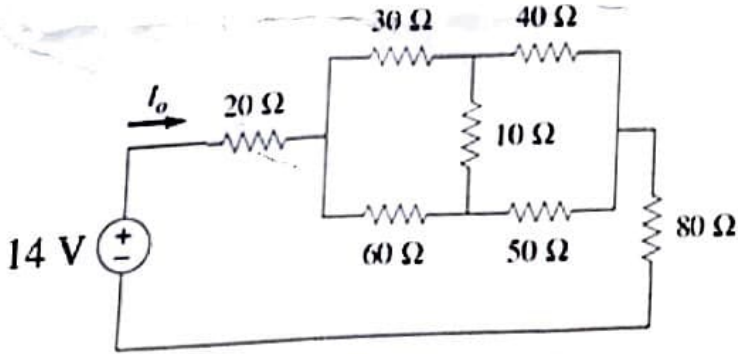
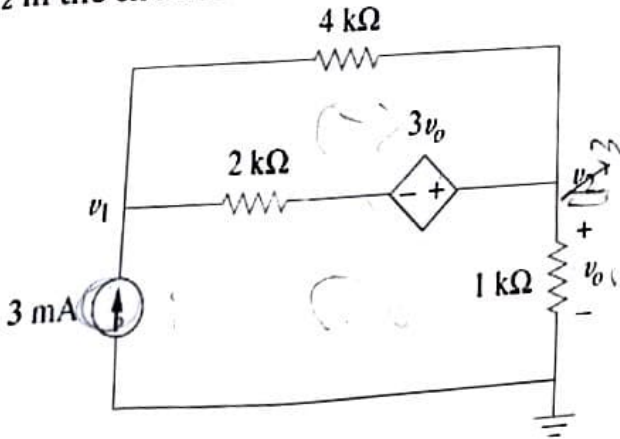
SLOT: A1+TA1+TAA1

Programme Name & Branch : B. Tech., BEC & BML
 Course Code & Course Name : BAECE103 & Network Theory
 Faculty Name(s) : Dr. Shambavi K., Dr. Dharani Bai G., Dr. Vijay Kumar
 Dr. Velmurugan V., Dr. Konguvel E.
 Class Number(s) : VL2025260500795, VL2025260500799,
 VL2025260500797, VL2025260506705, VL2025260500804
 Date of Examination : 27.01.2026 (09:30 - 11:00 AM)
 Exam Duration: 90 Minutes

Maximum Marks: 50

General Instruction(s):

- Answer All Questions
- M - Max mark; CO - Course Outcome; BL - Blooms Taxonomy Level
(1 - Remember, 2 - Understand, 3 - Apply, 4 - Analyze, 5 - Evaluate, 6 - Create)
- Course Outcomes:
CO1: Compute DC circuit parameters using circuit laws and theorems.
CO2: Determine the natural and step responses of RC, RL, and RLC circuits.

Q. No	Question	M	CO	BL
1.	Calculate I_o in the circuit shown in Figure 1.  Figure 1.	10	1	BL3
2.	Obtain v_1 and v_2 in the circuit shown in Figure 2.  Figure 2.	10	1	BL3



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13.

Determine Thevenin equivalent circuit at terminal $a-b$ in the circuit shown in Figure 3. Also determine the maximum power delivered to the load resistor, R_L .

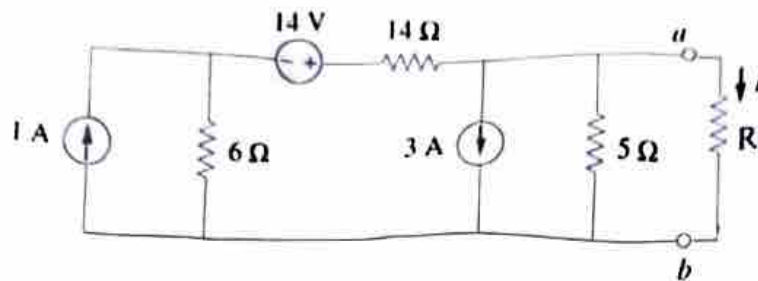


Figure 3.

10

1

BL3

14.

The switch in circuit shown in Figure 4 has been in position 'a' for a long time. At $t = 0$, it moves to position 'b'. Calculate $i(t)$ for all $t > 0$.

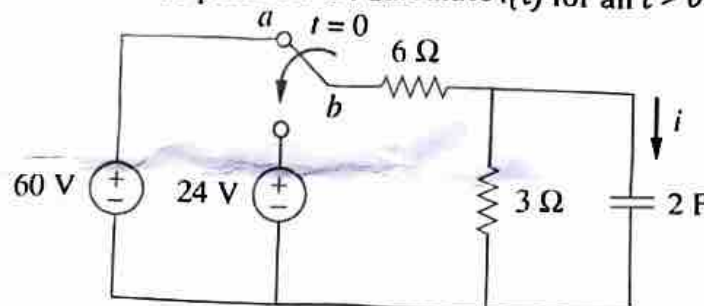


Figure 4.

10

2

BL3

15.

For the circuit shown in Figure 5, find $i(t)$ for $t > 0$.

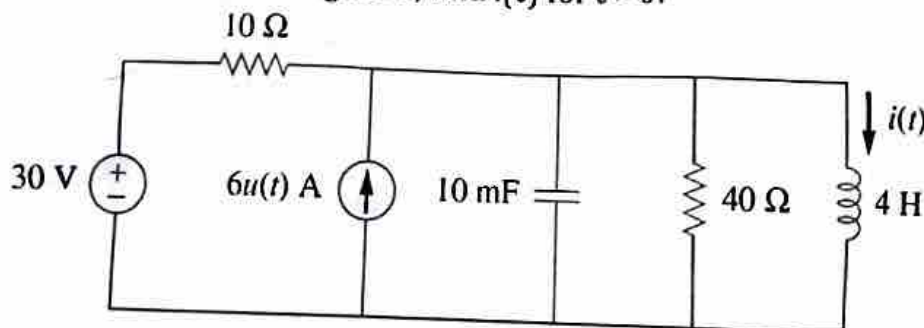


Figure 5.

10

2

BL3