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

SCHOOL OF ELECTRICAL ENGINEERING
FALL SEMESTER 2025-2026
CAT-II

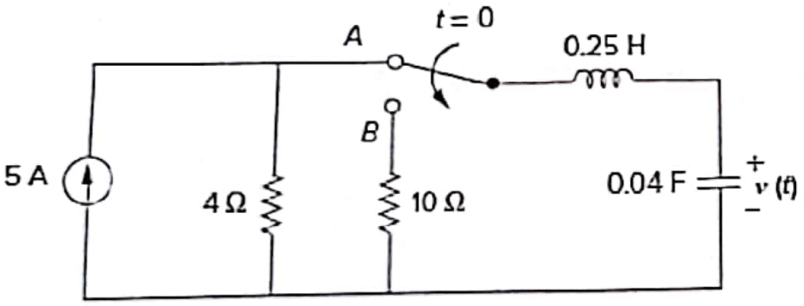
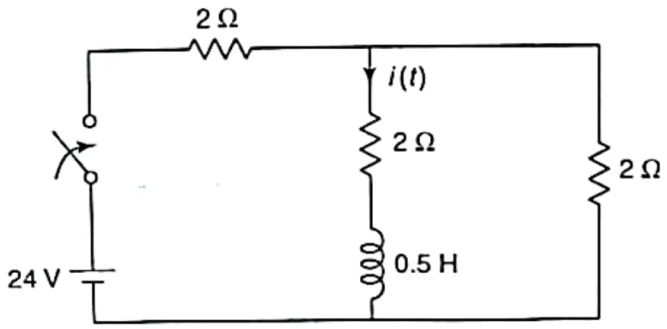
SLOT: A1

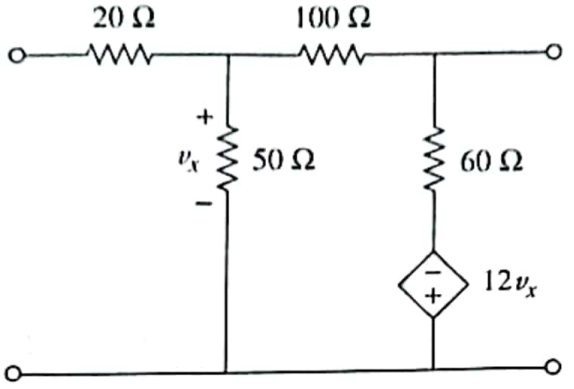
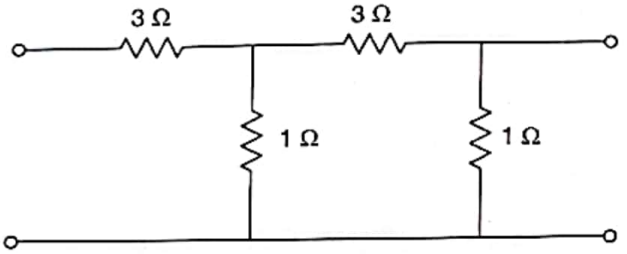
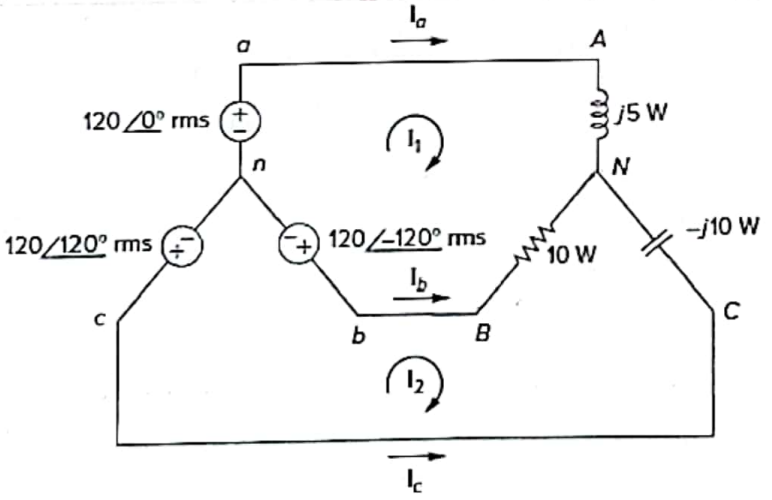
Programme Name & Branch : B. Tech EEE, EIE & ECS
Course Name : Circuit Theory
Course Code: BEEE203L
Faculty Members : Dr. P. Vijayapriya, Dr. K. Palanisamy, Dr. J. Vanishree
Class Number(s) : VL2025260101016, 1017, 1095
Date : 05.10.25

Duration : 90 minutes

Max. Marks : 50

General instruction(s): Answer **all** questions

Q. No	Question	Marks	CO	BL
1.	In the circuit of Fig. 1, the switch instantaneously moves from position A to B at t=0. Find v(t) for $t \geq 0$.  Fig. 1	10	3	3
2.b	Determine the current i(t) in the network of Fig. 2, when the switch is closed at t = 0. The inductor is initially unenergized.  Fig 2	10	3	3

3.	Calculate the impedance-parameter of the circuit in Fig. 3.  Fig. 3	10	5	3
4.	Determine the *h*-parameters of the network in Fig. 4. Also get *y* parameters using relationship between the parameters.  Fig. 4	10	5	3
5.	For the unbalanced circuit in Fig. 5, find (a) the line currents, (b) the total complex power absorbed by the load, and (c) the total complex power absorbed by the source.  Fig. 5	10	2	3