Reg. No.:

Name :

VIT

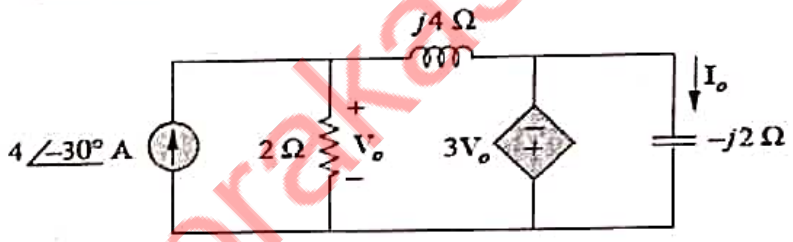
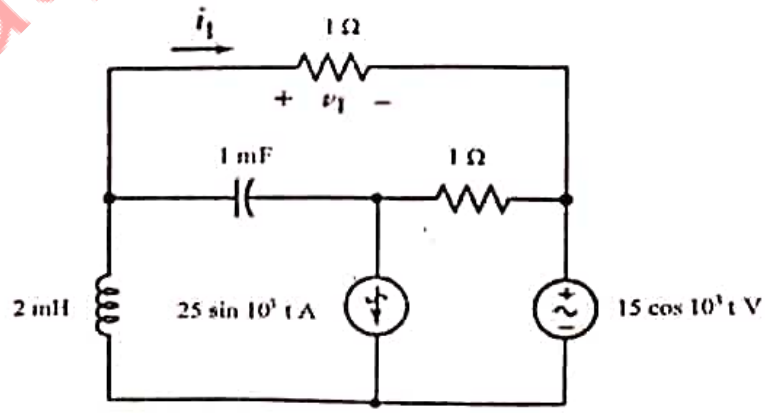
Vellore Institute of Technology

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

Continuous Assessment Test I – March 2023

Programme	:	B.Tech (ECE/ECM)	Semester	:	WS 2022-23
Course	:	Circuit Theory	Code	:	BECE203L
			Slot	:	A2+TA2+TAA2
Faculty	:	Dr. ASHISH KUMAR Prof. KRITHIKA ALIAS ANBU DEVI M Prof. SRINIVASAN R Dr. NIRAJ KUMAR Dr. USHA RANI S Dr. M SARANYA NAIR	Class Nbr	:	CH2022232300116 CH2022232300117 CH2022232300118 CH2022232300120 CH2022232300121 CH2022232300122
Time	:	90 Minutes	Max. Marks	:	50

Answer ALL the questions

Q.No.	Sub. Sec.	Questions	Marks
1.		Determine V_o and I_o in the circuit using mesh analysis in Fig.1  Fig. 1	10
2.		Using the superposition theorem, determine $v_1(t)$ in the circuit in Fig.2.  Fig. 2	10

3. Find the Thevenin equivalent of the circuit in Fig.3, as seen from terminals a-b. 10

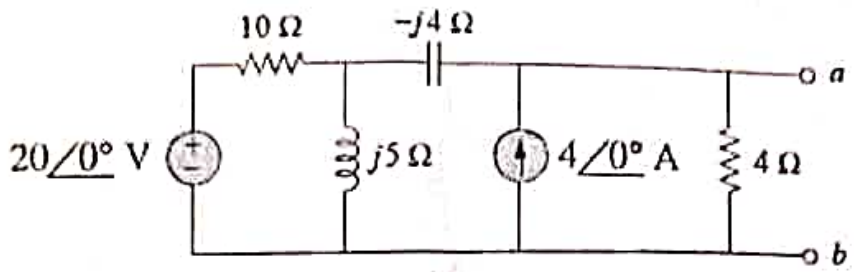


Fig. 3

4. Find *i(t)* in the circuit shown in Fig. 4, for t > 0. Assume that the switch has been closed for a very long time. 10

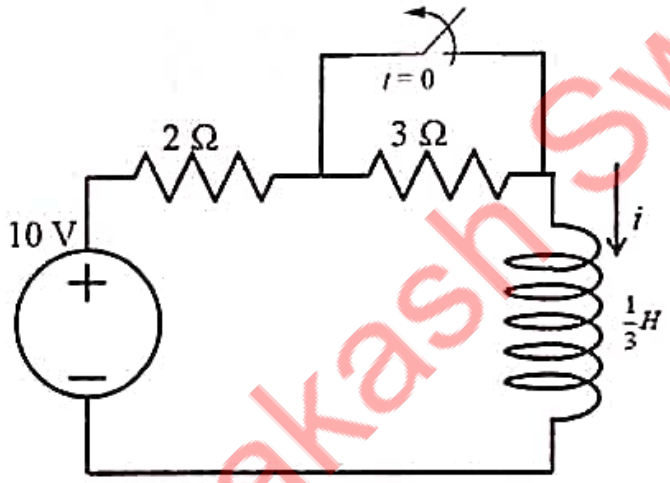


Fig. 4

5. The switch in the circuit of Fig. 5 has been closed for a long time but is opened at t=0. Determine i(t) for t>0. 10

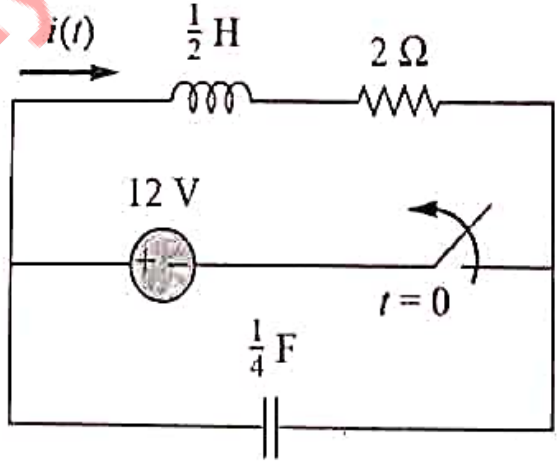


Fig. 5

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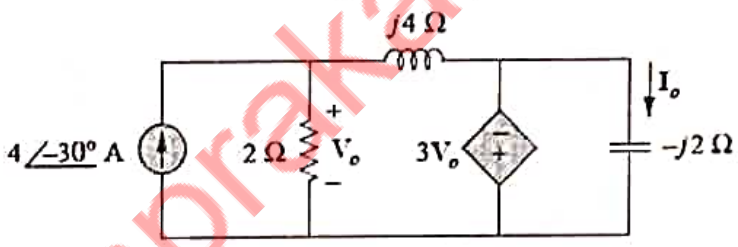
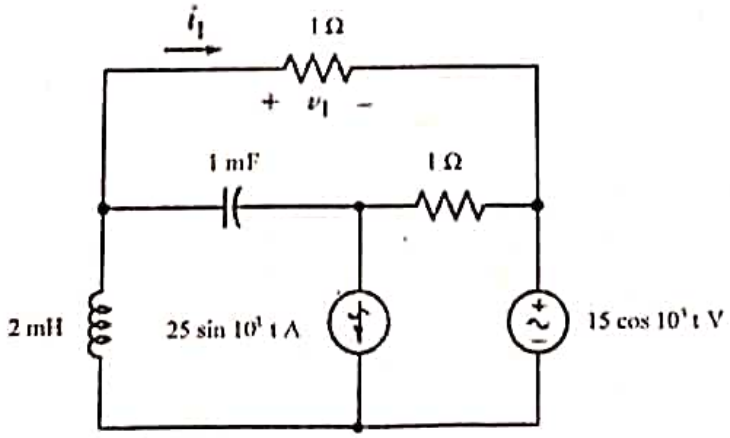
1.		Determine V_o and I_o in the circuit using mesh analysis in Fig.1  Fig. 1	10
2.		Using the superposition theorem, determine $v_1(t)$ in the circuit in Fig.2.  Fig. 2	10

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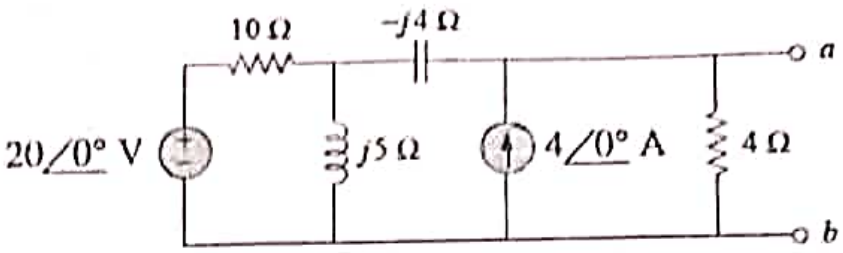

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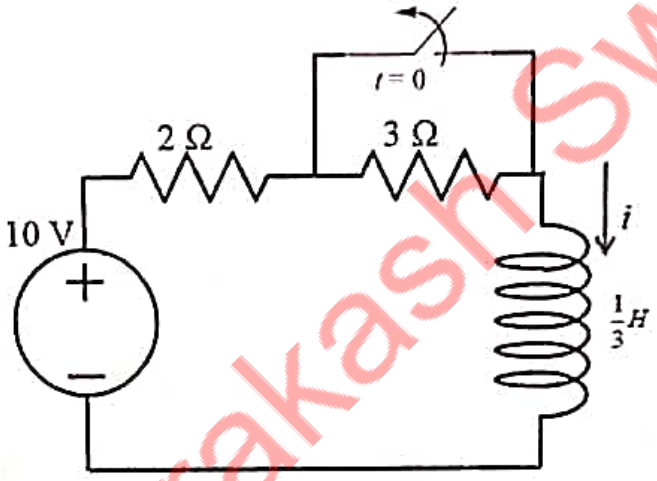

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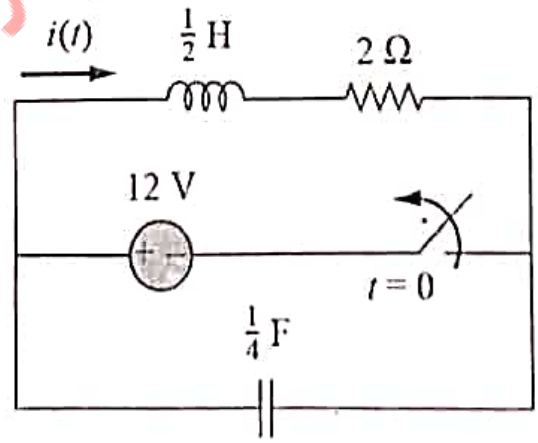

Fig. 5

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