



III SEMESTER BTECH. (E & C) DEGREE END SEMESTER EXAMINATION JANUARY 2022

SUBJECT: NETWORK ANALYSIS (ECE - 2154)

DATE: 29.01.2022

PART A - CIRCUIT IMAGES

MAX. MARKS: 30

Q. No.	Questions	M*	C*	A*	B*
	The circuit diagram for Fig. (A) shows a central node connected to four other nodes. The top-left branch contains a voltage source V_2 in series with a 2 V source. The top-right branch contains a 3 V source in series with a 0 V source. The bottom-left branch contains a 4 V source in series with a voltage source V_1. The bottom-right branch contains a 5 V source in series with a 10 V source. A central voltage source E is connected between the top and bottom nodes. Fig. (A)				
	The circuit diagram for Fig. (B) shows a network of resistors between terminals A and B. From terminal A, the current flows through a $6\ \Omega$ resistor. After this resistor, the circuit splits into two parallel paths. The top path goes through a $6\ \Omega$ resistor and then a $6\ \Omega$ resistor. The bottom path goes through a $6\ \Omega$ resistor. Both paths recombine at a node, which then flows through a final $6\ \Omega$ resistor to terminal B. Fig. (B)				

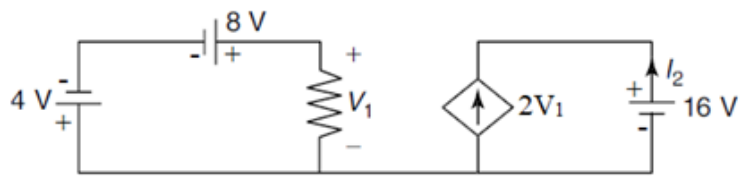


Fig. (C)

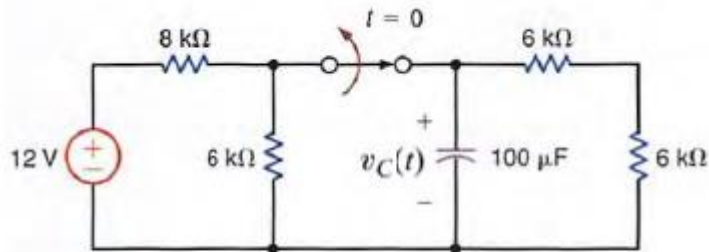


Fig. (D)

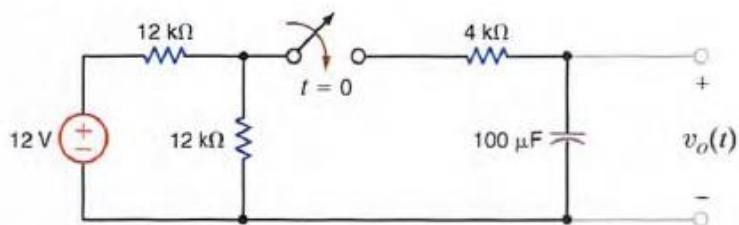


Fig. (E)

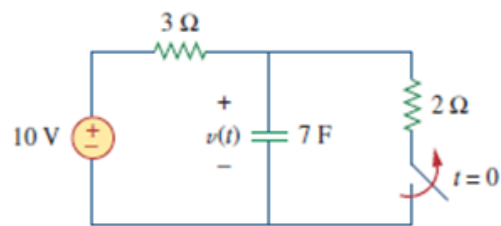


Fig. (F)

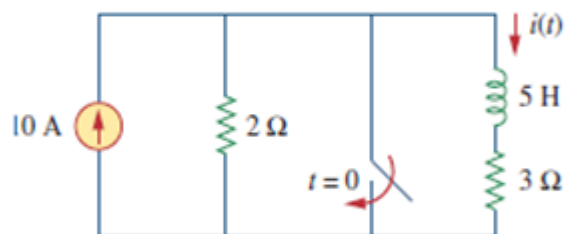


Fig. (G)

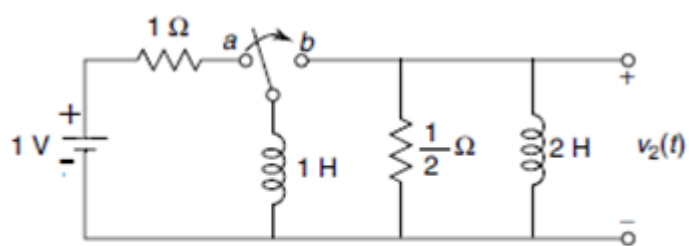


Fig. (H)

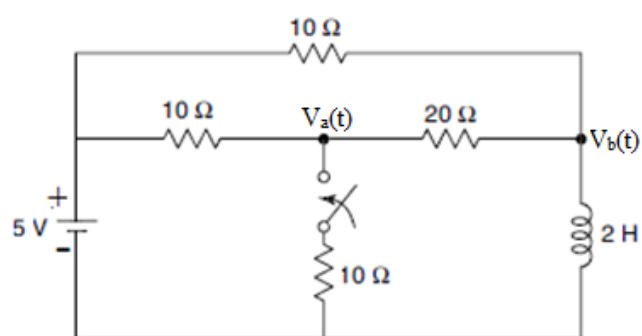


Fig. (I)

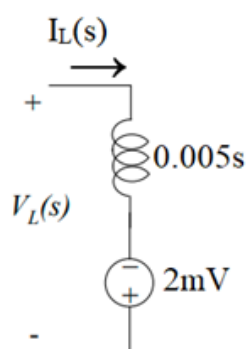


Fig. (J)

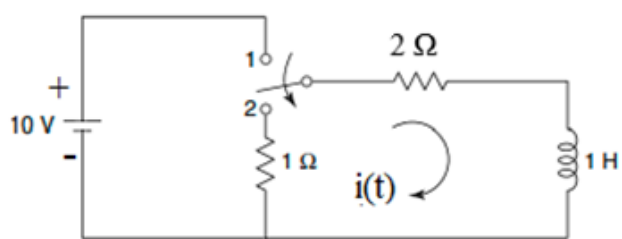


Fig. (K)

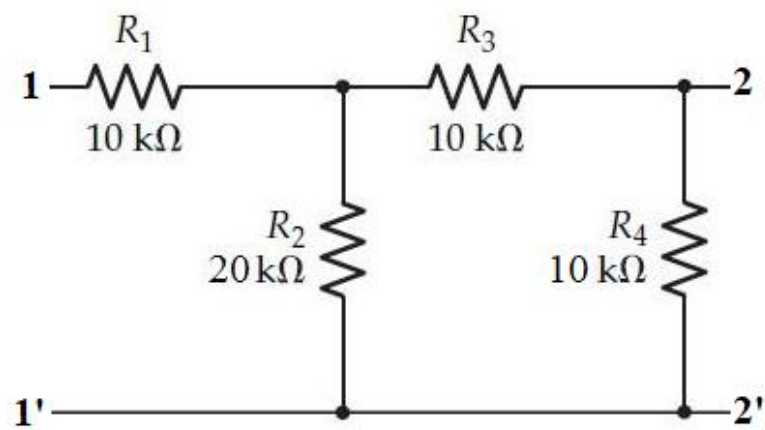


Fig. (L)

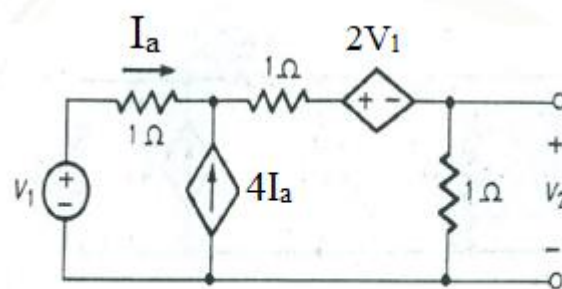


Fig. (M)

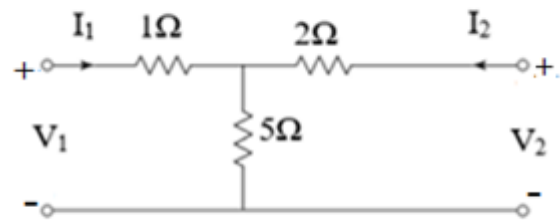


Fig. (N)

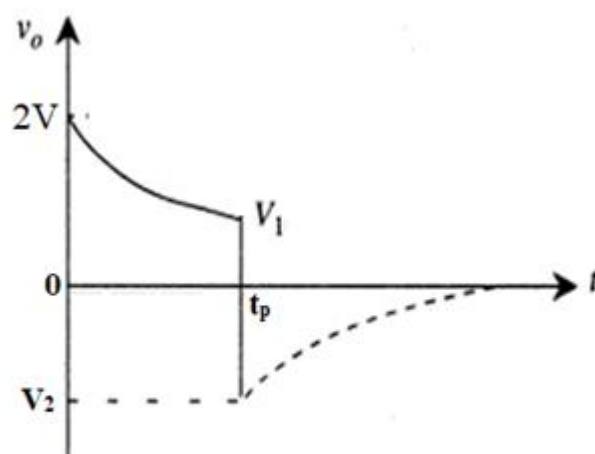


Fig. (O)