BEEE203L Circuit Theory

Digital Assignment I

1. The switch in fig. 1 has been in position a for a long time, until t=4 s when it is moved to position b and left there. Determine v(t) at t=10 s.

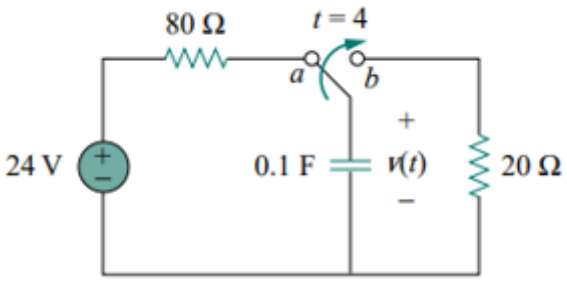


Fig. 1

2. If v(0) = 20 V in the circuit in Fig. 2, obtain v(t) for t > 0.

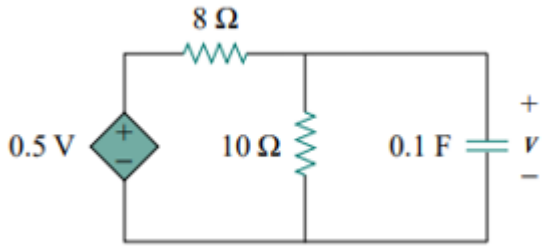


Fig. 2

3. The switch in Fig. 3 has been in position a for a long time. At t = 0, it moves to position b. Calculate i(t) for all t>0.

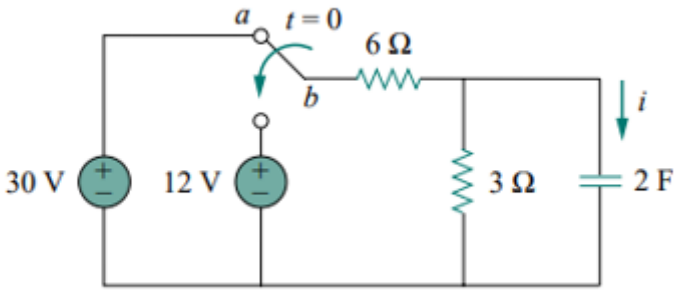
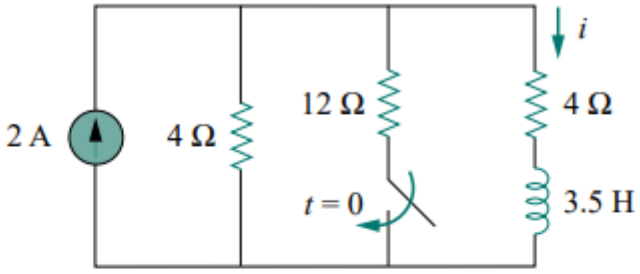
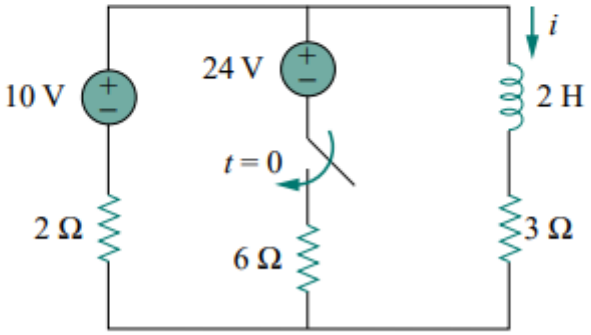


Fig. 3

4. Obtain the inductor current for both t<0 and t>0 in each of the circuits in fig. 4 a and b.



(a)



(b)

Fig. 4

5. Find v(t) for t> 0 in the RLC circuit of fig. 5.

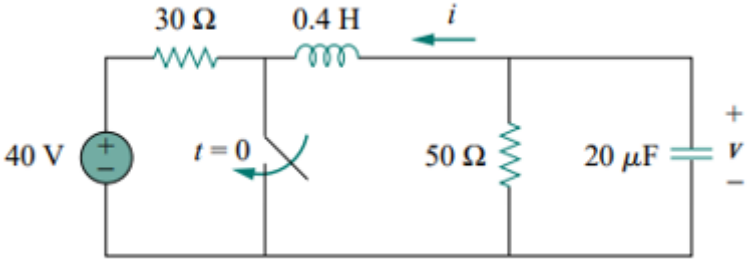


Fig. 5

6. Obtain the admittance parameter equivalent circuit of the two port in Fig. 6.

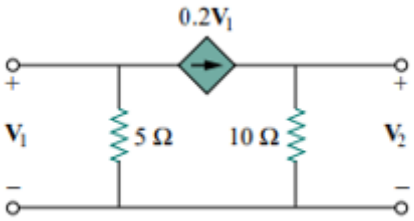


Fig. 6

7. Find the transmission parameters for the circuit in Fig. 7.

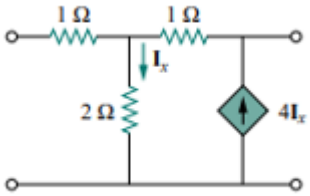


Fig. 7

8. What is the Y parameter presentation of the circuit in Fig.8.

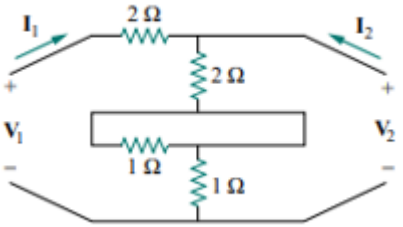


Fig. 8

9. Find V_2/V_s in the circuit in Fig. 9.

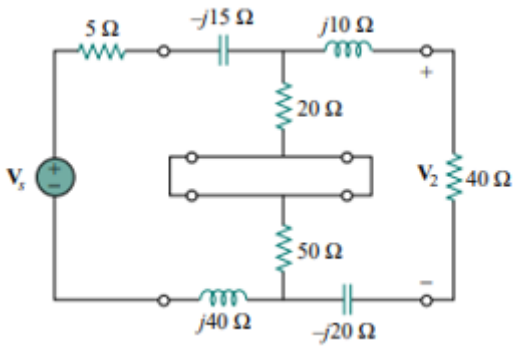


Fig. 9

10.