

14. A network has been shown in Fig. 3. The switch S is closed at $t = 0$. Find the current through R_L using Thevenin's theorem. Assume steady state condition before switching.

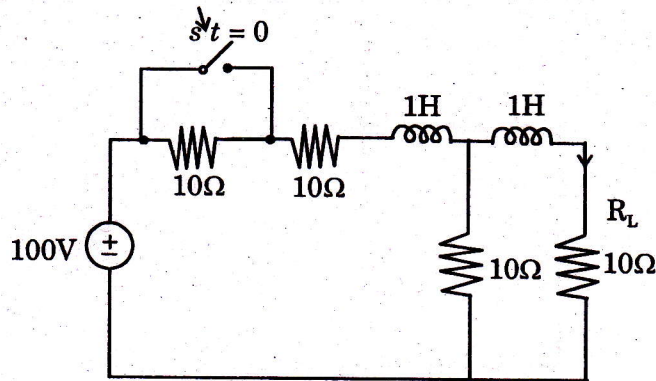


Fig. 3.

MODULE III

15. For the network graph shown in Fig. 4, select a suitable tree and obtain the tie-set matrix. Hence write the Kirchhoff's voltage law equations.

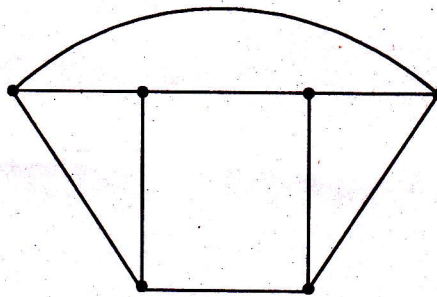


Fig. 4

Or

16. In the ladder circuit shown in Fig. 5, with input current $i(t) = 10 \cos 50,000 t$ mA, write a MATLAB program to determine the steady state voltages in the circuit.

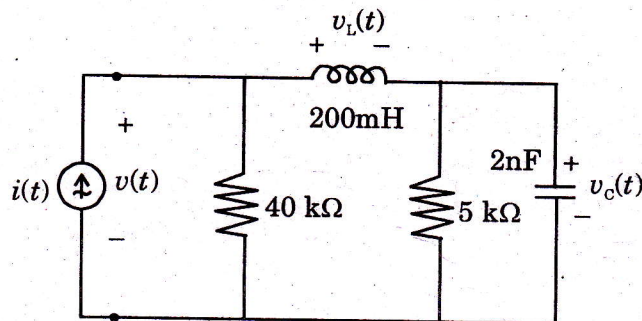


Fig. 5

Turn over