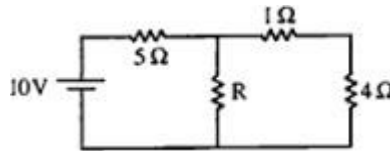


# **BEEE UNIT-1 IMP**

State & Explain Thevenin theorem with the help of an example.

Explain the source transformation technique.

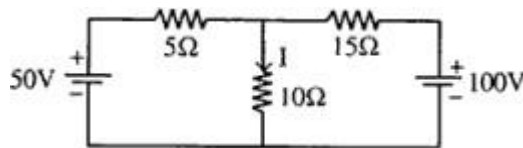
What is the value of unknown resistor R? If the voltage drop across the  $4\Omega$  resistor is 2V for the circuit shown in figure below-



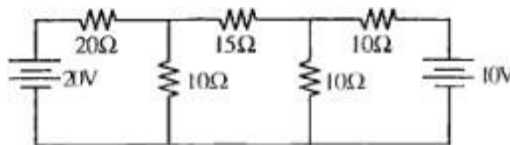
Explain the Nodal analysis with suitable example.

For the circuit shown in figure, determine the current I through the  $10\Omega$  resistance by following methods-

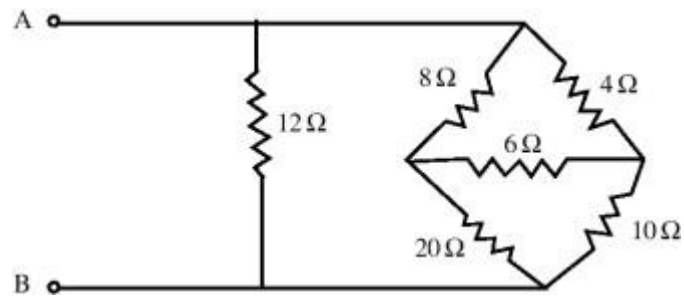
- (1.) KCL
- (2.) KVL
- (3.) Superposition theorem.



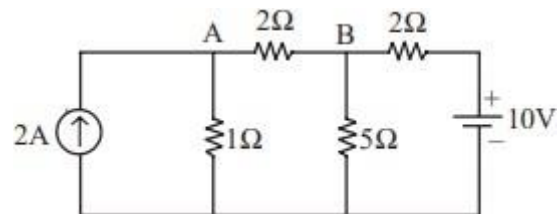
Determine the currents in all branches of the network shown below-



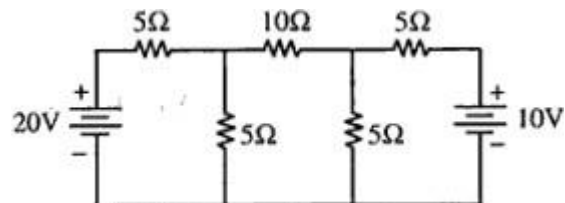
Find the resistance  $R_{ab}$  in the figure using star delta transformation.



Determine the current in the branch AB using Superposition Theorem.



Find the value of current in  $10\ \Omega$  resistance for the following circuit using Kirchhoff's law.



State & Prove Superposition theorem.