



ABES Engineering College, Ghaziabad
Department of Electrical & Electronics Engineering

Session: 2023-24

Semester: II

Section:

Course Code: BEE201

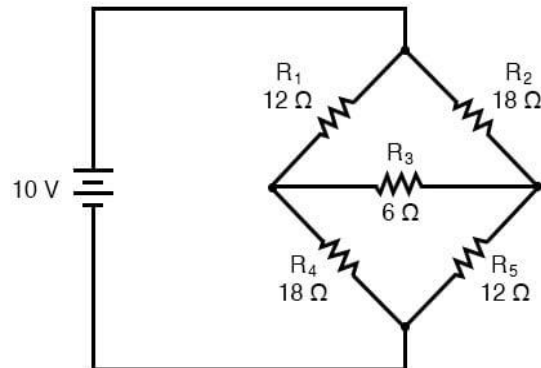
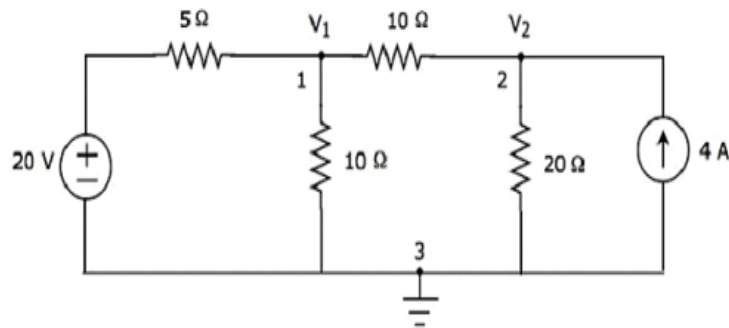
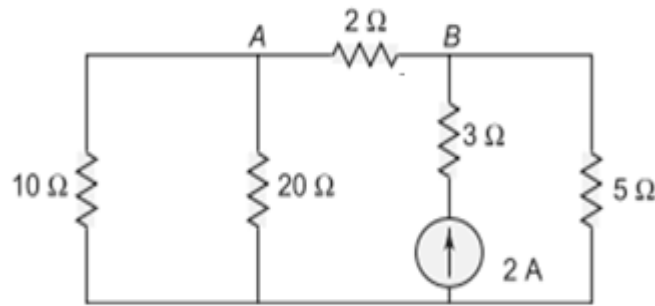
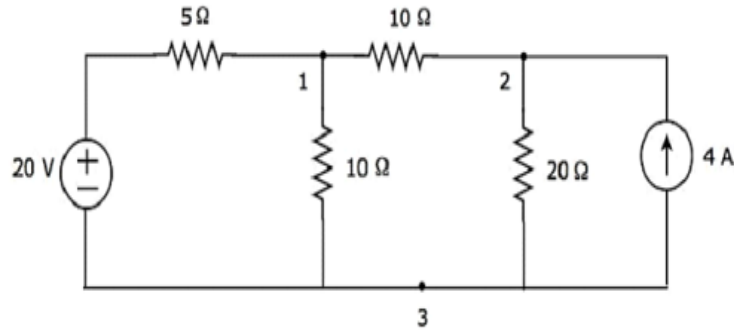
Course Name: Fundamentals of Electrical Engineering

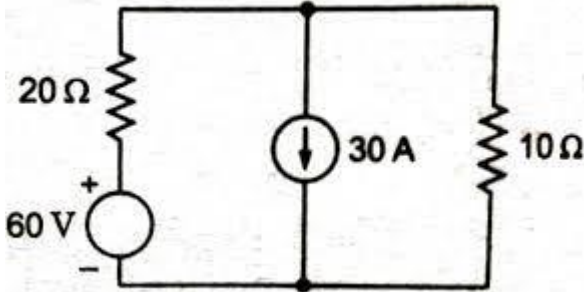
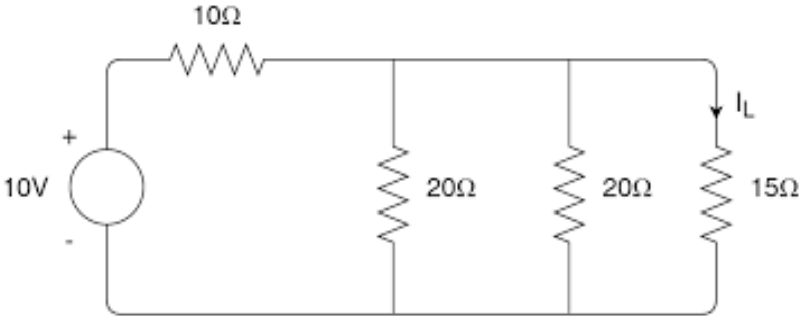
Tutorial Sheet-1

Topic: DC Circuits

Q. No.	KL	CO	Question	Ans.
Q-1	K3	CO3	<p>Calculate the current in $6\ \Omega$ by using mesh analysis method.</p>	$I_{6\Omega} = 5A$
Q-2	K3	CO3	<p>Using Mesh analysis, find current in $1\ \Omega$ resistor in the circuit shown in figure below:</p>	$I_{1\Omega} = 4A$
Q-3	K3	CO3	<p>Calculate the current in 100Ω by using mesh analysis method.</p>	$I_{100\Omega} = 0.169A$

Q-4	K3	CO3	Calculate the current in $20\ \Omega$ by using mesh analysis method.	$I_{20\Omega}=2A$
Q-5	K3	CO3	Calculate the in $2\ \Omega$ by using mesh analysis method.	$I_{2\Omega}=0.731A$
Q-6	K3	CO3	Calculate the node voltage V_1 and V_2 by using nodal analysis method.	$V_1=20V$ $V_2=+40V$
Q-7	K3	CO3	Calculate the current in 6Ω by using Nodal analysis method and verify the answer by using Mesh analysis method.	$I_{6\Omega}=0.0981A$



Q-8	K3	CO3	Calculate the current in $10\ \Omega$ by using Nodal analysis method.	$I_{10\Omega} = 18\text{A}$
				
Q-9	K3	CO3	Calculate the value of I_L by using Nodal analysis method and verify the answer by using Mesh analysis method.	$I_L = 0.25\text{A}$
				
Q-10	K3	CO3	Calculate the value of current in R_L by using Nodal analysis method and verify the answer by using Mesh analysis method.	$I_{R_L} = -0.75\text{mA}$
