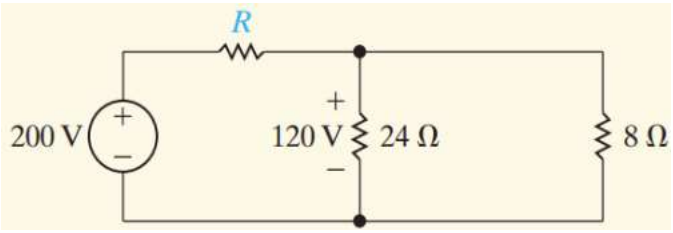
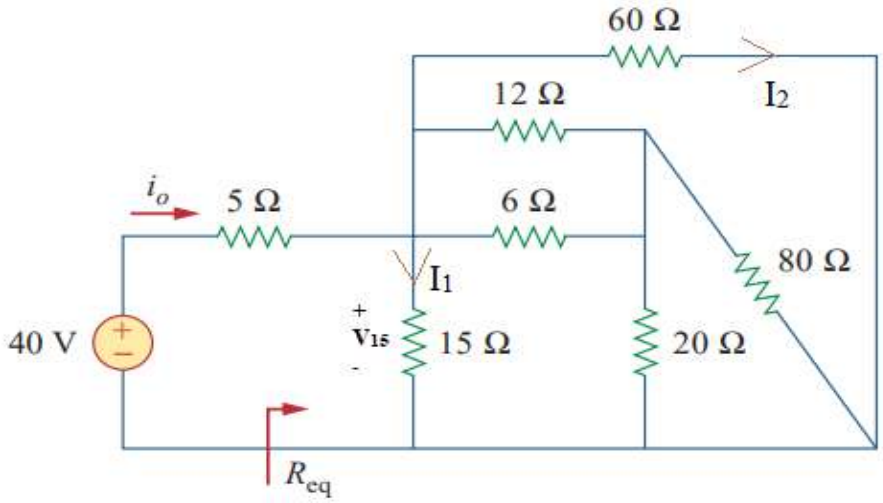
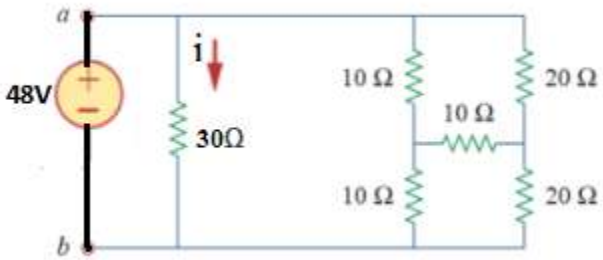
United International University

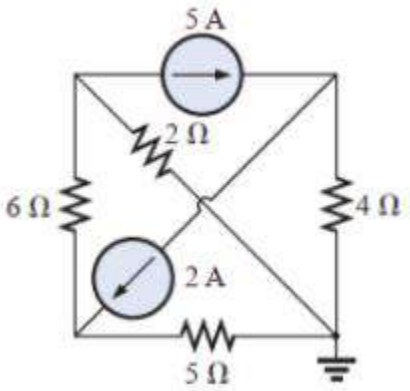
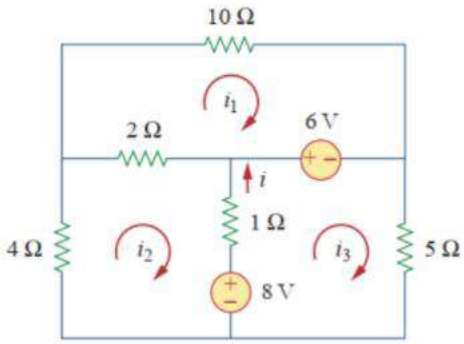
Department of Computer Science and Engineering

Course Code: EEE 2113 | Course name: Electrical Circuit

Spring2022 | MID Examination | 30 marks | 1 hour and 45 minutes

There are five (5) questions here. Answer all of them.

1.  **Use Ohm's law and Kirchhoff's laws to find the value of R in the circuit shown.**	**[5]**
2.  **a) Find out Req and i_0** **b) Find out V_{15} using voltage divider rule** **c) Find out I_1 and I_2 using current divider rule**	**[10]**
3.  **a) Find out the value of Req at terminal ab in the above circuit.** **b) Find out the value of i .**	**[5]**

4.  **a) Apply nodal analysis to find out the node voltages.** **b) Find out the power absorbed by the 6Ω and 5Ω resistors.**	**[5]**
5.  **Apply mesh analysis to find i and the voltage drop across the 10Ω resistor.**	**[5]**

Any examinee found adopting unfair means will be expelled from the trimester / program as per UIU disciplinary rules