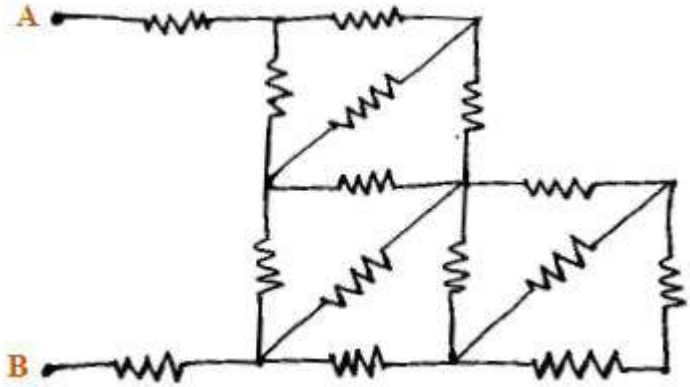
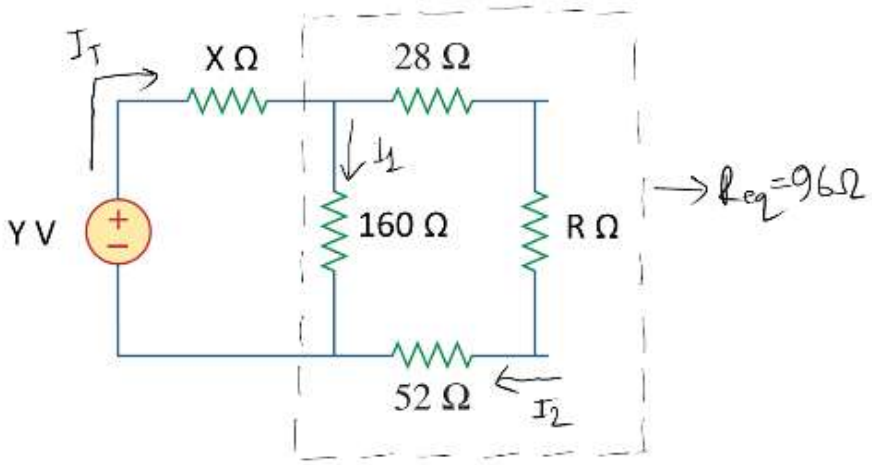
United International University

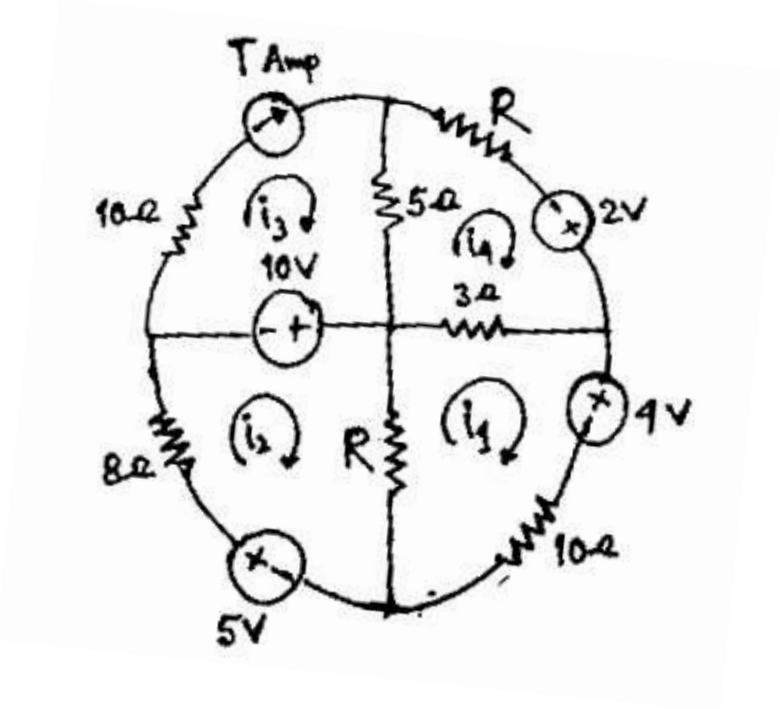
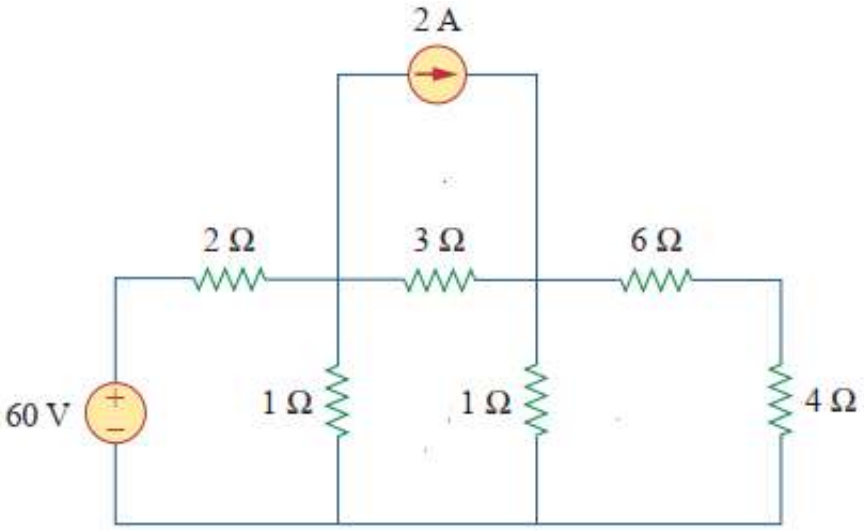
Department of Computer Science and Engineering

Course Code: EEE 2113 | Course name: Electrical Circuit

Summer 2021 | MID Examination | 20 marks | 60min

There are five (4) questions here. Answer all of them

1. In the following resistor, value of each resistance is R Ω. (R = First digit of your birthdate + Last digit of Your Class ID + 2). Find out the R_{eq} at Terminal AB (Marked in the Figure). 	**[5]**
2. Given that: • **The equivalent resistance of the portion that has been marked with dotted lines in the following Circuit, Req is 96 Ω.** • **The value of Y is the last three digits of your student ID** • **The value of X is the day-value of your birth date (i.e., if your birthday is dd-mm-yyyy, then the Value of X is dd).**  **Find the following:** **a) The voltage through the X Ω resistor** **b) The current I_T** **c) The resistance R** **d) The currents I_1 and I_2**	**[5]**

3. In the following figure, T= (40 / your birthdate) Amp and R = (Last Digit of your ID no + 5) Ω. Find out the value of mesh Currents i_1, i_2, i_3 and i_4. 	**[5]**
4. Find the node voltages for the following circuit. Also, find out the power at resistor 4 Ω. 	**[5]**

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