# Department of Electrical Engineering
## Assignment
### Date: 22/08/2020

## Course Details

**Course Title:** Network Analysis-I                    **Module:** 4rth
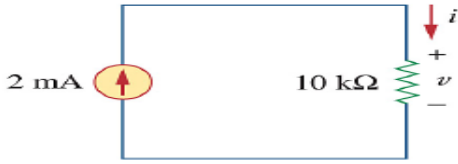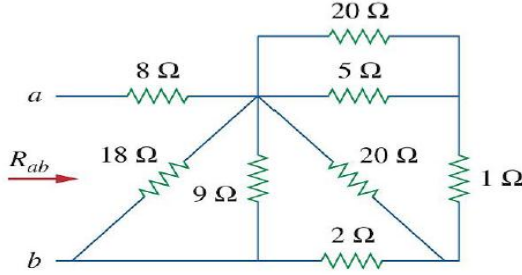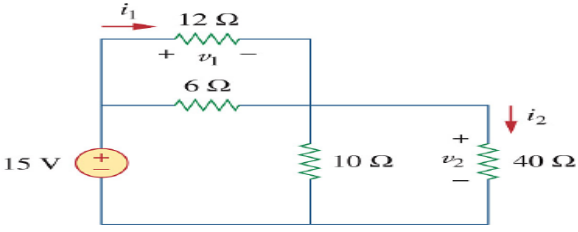
**Instructor:**                                         **Total Marks:** 30

## Student Details

**Name:**                                               **Student ID:**

| Q1 | (a) | For the circuit shown below, calculate the voltage V, the conductance G, and the power P. | Marks 05 CLO 1 |
|---|---|---|---|
| | |  | |
| | (b) | A resistor absorbs an instantaneous power of $20\ Cos^2(t)mW$ when connected to a voltage source $V = 10\cos(t)\ v$. Find I and R? | Marks 05 CLO 1 |
| Q2 | (a) | Find $R_{ab}$ for the circuit given below. | Marks 10 CLO 1 |
| | |  | |
| Q3 | (a) | Find $V_1$ and $V_2$ for the circuit shown below. Also calculate $i_1$ and $i_2$ and the power dissipated in the 12Ω and 40Ω resistors. | Marks 05 CLO 2 |

| | | |
|---|---|---|
| (b) | The essential component of a toaster is an electrical element (a resistor) that converts electrical energy to heat energy. How much current is drawn by a toaster with resistance 10Ω at 110V? | Marks 05 CLO 2 |

☺Good Luck☺