



End Term Examinations (December 2018)

School: School of Information Technology

Program: B.Tech. (CTIS/MACT/DS)

Course: Basic Electronics and Electrical Engineering

Course Code: ENG108

Semester: I

Max Marks: 50

Duration (mins): 90

Section A

Q1. Answer the following. (Any Five)

10 Marks

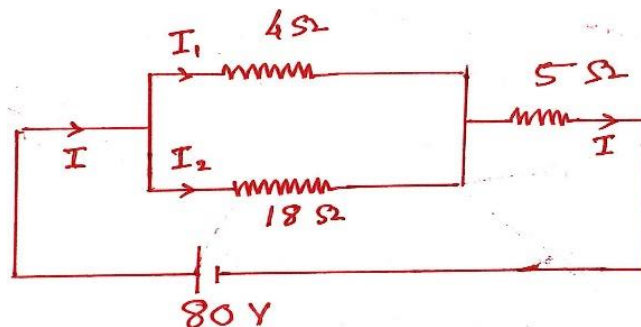
- What is semiconductor?
- Define Mesh and Loop in an electric circuit.
- Define rectifier.
- List types of transistors.
- Define Op-Amp.
- List different logic gates.
- What are active and passive elements in an electric circuit?

Section B

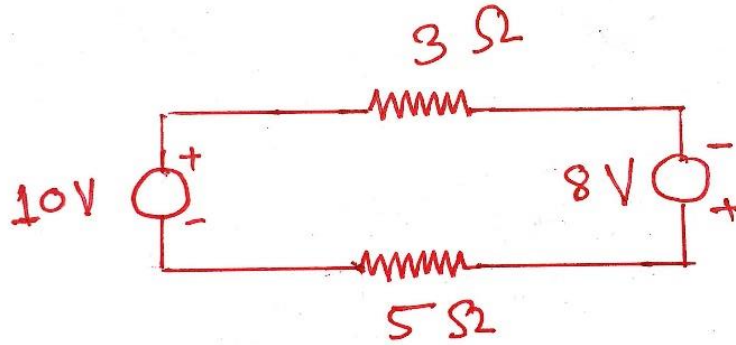
Q2. Answer the following (Any Four)

20 Marks

- For the network Shown in fig. determine
 - Voltage drop in each resistor
 - The current in each resistor



b) Find V_1 and V_2 in the circuit shown



c) Explain full-wave rectifier with diagram.

d) Simplify: $A(A + B) + (B + AA)(A + B)$:

e) Explain Zener diode.

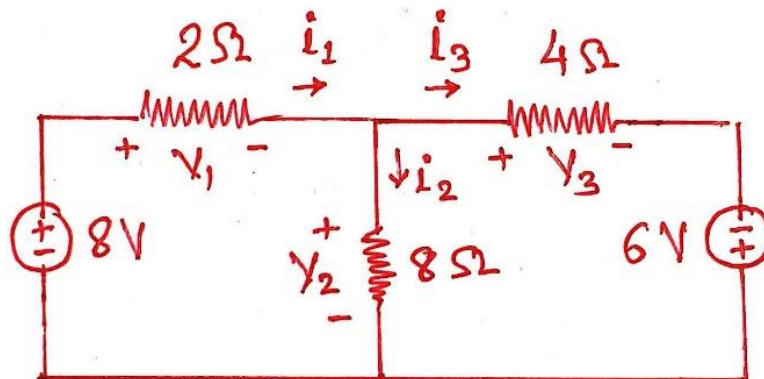
f) Explain Inverting and non-inverting configurations of Op-Amp.

Section C

Q3. Answer the following (Any Two)

20 Marks

a) Find the voltages and currents in the circuit



b) Explain p-n junction diode with its characteristics and differentiate it with zener diode.

c) Explain construction and working of BJT.

d) Simplify $AB + A(B + C) + B(B + C)$ also draw logic diagram for original and simplified expression.
