SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

AN AUTONOMOUS INSTITUTION

Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai

I Semester

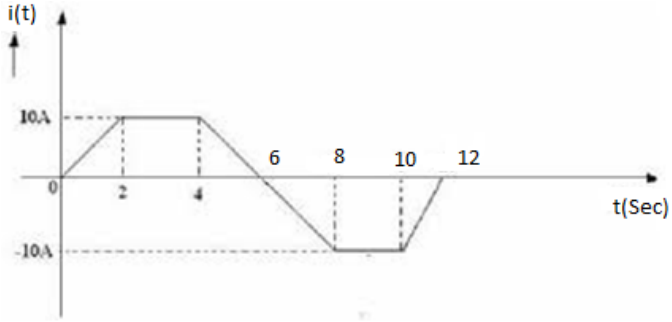
B.E-Mechanical and Mechatronics Engineering (Additive Manufacturing)

23EET101 – Basics of Electrical and Electronics Engineering

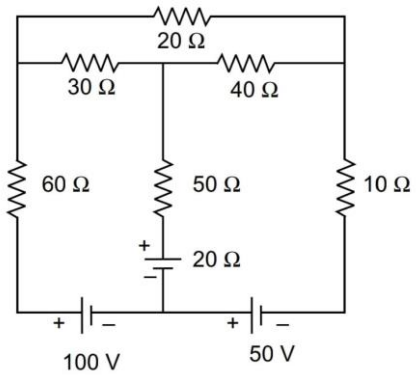
Regulations 2023

QUESTION BANK

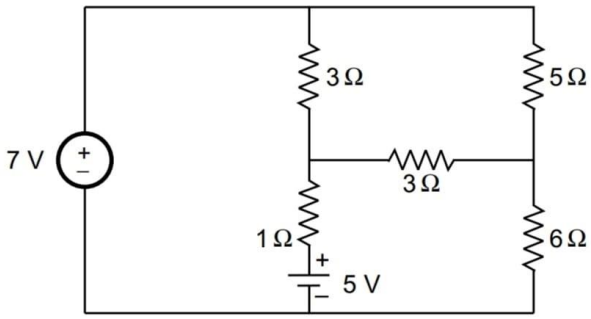
UNIT I
PART A

1	State Kirchhoff's Voltage Law.
2	State the limitations of ohms law.
3	List the essential requirements (torque) of an instrument.
4	Define Ohm's Law.
5	State Kirchhoff's Current Law.
6	Find the average value of 
7	Distinguish between series and parallel circuit.
8	Compare Mesh and Loop.
9	Write current division rule.
10	State Kirchhoff's Current Law.
11	Define average and RMS value.
12	Define form factor.
13	Limitations of MC instrument.

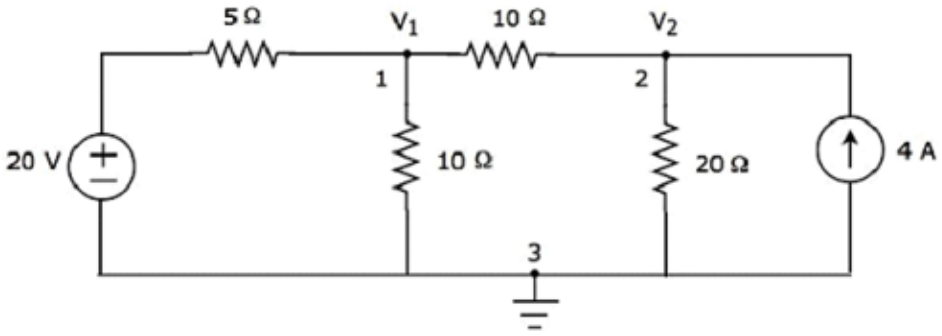
PART B

1	Calculate the current in the 50 Ω resistor in the network shown in fig using mesh analysis. Also determine the voltage drop across the 20 Ω resistor. 

2 Illustrate the mesh currents and also the current through 1 Ω resistance in the circuit shown in fig.



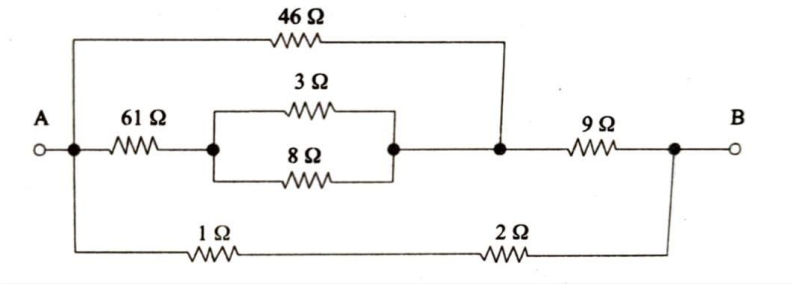
3 Use Kirchhoff's law to determine the node voltage V_1 and V_2 for shown in fig.



4 With a neat schematic diagram explain the operation of single phase energy meter.

5 Discuss the principle of operation of permanent magnet moving coil instruments with neat sketches.

6 Determine the amount of total resistance between points A and B of the circuit shown in fig.



7 Discuss the principle of operation of dynamometer type wattmeter.

8 With a suitable sketch explain the principle of operation of attraction type and repulsion type of moving iron instruments.

9 Use circuit reduction techique, to determine the equivalent resistance between A and B for given circuit.