

Name: .....

Registration No.: .....

Section: .....

Roll No.: .....

Class Assessment Test-1

Date of Allocation: 13.02.2023,

Basic Electrical and Electronics Engineering (ECE249)

Date of Submission: 20.02.2023

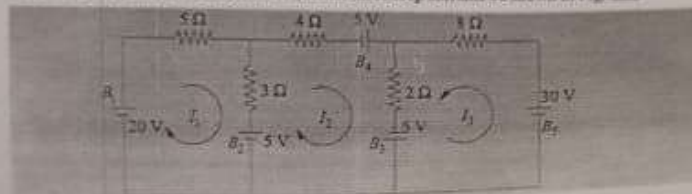
Attempt All Questions (Each Question Carry 5 Marks)

Total Marks: 30

Q 1. Explain Thevenin and Norton Theorem in detail with steps.

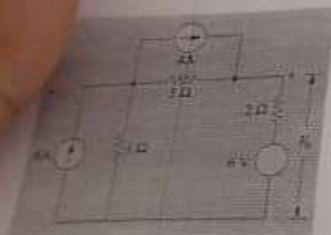
Example: Determine the current supplied by each battery in the circuit shown in Fig.

Solution: Since there are three meshes, let the three loop currents be shown in Fig.



Q 2.

Example: Using Superposition theorem, find the value of the output voltage  $V_o$  in the circuit of Fig.

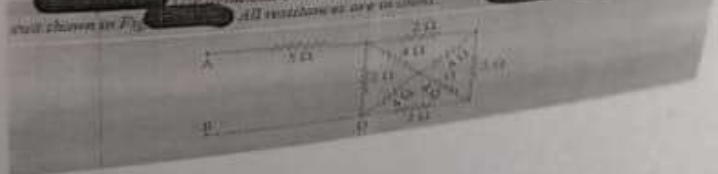


For the circuit shown in Fig. calculate the current in the 10 ohm resistance. Use Thevenin's theorem only.

Q4.

Q 5. Explain maximum power transfer theorem and Superposition theorem in detail with steps.

Example: Find the star conversion to find resistance between terminals 'AB' of the circuit shown in Fig. All resistances are in ohms.



Q 6.

