

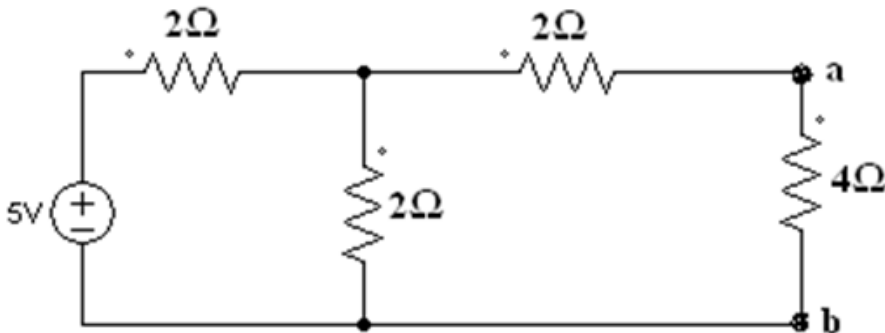
**School of Computing Science and Engineering**  
**Bachelor of Technology in Computer Science and Engineering**  
**Mid Term Examination - May 2024**

**Duration : 90 Minutes**  
**Max Marks : 50**

**Sem II - G2UA120B - Basic Electrical and Electronics Engg.**

*General Instructions*  
*Answer to the specific question asked*  
*Draw neat, labelled diagrams wherever necessary*  
*Approved data hand books are allowed subject to verification by the Invigilator*

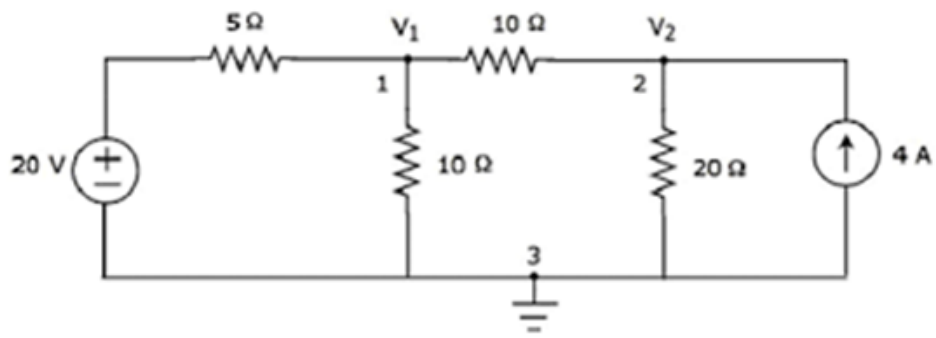
- 1) Compare the function of inductor and capacitor. K2 (2)
- 2) State the Kirchhoff's Voltage Law (KVL). K1 (3)
- 3) Explain the advantages of sine wave. K2 (4)
- 4) With an example illustrate the Norton's Theorem. K2 (6)
- 5) If a 4-ohm, 5 ohm and 10-ohm resistors are connected in star configuration, Identify the value of resistors in the equivalent delta connection. K3 (6)
- 6) Solve the problem with the help of Norton's theorem and find the current through the 4 Ω resistor. K3 (9)



- 7) Inspect the average and RMS value for a sinusoidal AC signal by analytical method. K4 (8)

8) Explain star to delta transform. Using node analysis, examine the current of  $20\Omega$  resistor.

K4 (12)



**OR**

Explain delta to star transform Using node analysis, examine the current flow at  $5\Omega$  resistor.

K4 (12)

