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. FigBQ91 — 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 20Ω resistor. FigAQ40 — K4 (12)

OR

Explain delta to star transform Using node analysis, examine the current flow at 5Ω resistor. FigAQ41 — K4 (12)