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School of Engineering
M.Tech Power System Engineering
Mid Term Examination - May 2024

Duration : 90 Minutes
Max Marks : 50

Sem II - G2PI205C - Power Quality

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) Explain the major causes for power supply interruptions. K2 (2)
- 2) Define the reasons of voltage imbalances. K1 (3)
- 3) Explain the commonly used indices for measuring of harmonic content in the waveform. waveform. K2 (4)
- 4) Explain about the power quality evaluation procedure. K2 (6)
- 5) Illustrate the methodology of estimating voltage sag performance. K3 (6)
- 6) Illustrate variations in load demand contribute to voltage sags, and are there any particular industries or applications where this is a common issue. K3 (9)
- 7) Analyze the reasons of voltage imbalances. K4 (8)
- 8) Analyze the operation of Distribution Static Compensator (DSTATCOM) used for sag mitigation. K4 (12)

OR

Analyze the process of calculating the total harmonic distortion (THD) of voltage and current waveforms during a faulted condition, and how does this relate to power quality assessment. K4 (12)