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School of Engineering
M.Tech Power System Engineering
Mid Term Examination - Nov 2023

Duration : 90 Minutes
Max Marks : 50

Sem I - G2PI103B - Analysis of Power Electronics Circuits

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 different power electronic switches. K2 (2)
- 2) Define duty cycle. K1 (3)
- 3) Explain the principle of chopper operation. K2 (4)
- 4) Illustrate the types of power transistors. K2 (6)
- 5) Model a step-down chopper circuit. K3 (6)
- 6) Discuss the differences between holding current and latching current in an SCR. K3 (9)
- 7) Classify the power electronic converters into different types. K4 (8)
- 8) Discuss the features of MOSFET and BJT. K4 (12)

OR

Analyse how a dual converter using two full converters give four quadrant operation. K4 (12)