

Module 1

Chapter 1 : Introduction to Power Electronics 1-1 to 1-6

Syllabus : Principle and Application areas of power electronics, Power semiconductor devices, Types of power electronic circuits such as controlled rectifiers, Inverters, Dc to dc choppers, AC regulators.

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Module 1

Chapter 2 : Thyristors 2-1 to 2-38

Syllabus : Basic operation of silicon controlled rectifier, Static characteristics, Two transistor analogy, Dynamic characteristics, Firing circuits (R, RC, Ramp triggering using UJT). Self study topic : Other devices of Thyristor family.

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Module 3

Chapter 6 Single Phase Controlled Rectifiers

6-1 to 6-64

Syllabus Single phase half wave rectifiers, Full wave rectifiers (mid-point and bridge configuration) for R and R-L load, Freewheel diode, Rectification and inversion mode of single phase fully controlled rectifier, Single phase dual converter, Single phase PWM rectifier, Basic working principle and applications.

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Module 6

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