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Chapter 1 : Conventional Generation, Load Curves and Tariffs **1-1 to 1-77**

Syllabus : Generation scenario in India and Gujarat

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Wind Energy Conversion – Rotation principle, Forces on a rotor blade, Factors affecting performance of rotor (Aerodynamic efficiency, tip speed, tip seep ratio etc.), Thrust and torque on rotor, Power curve. Topologies and operation characteristics of SCIG based wind turbine power plant. Working Principal and operation characteristic of WRIG based wind turbine power plant.

(B) Concentrated Solar Power (CSP) plant Operation and its working, Photovoltaic Conversion – Introduction, Description and principle of working, performance characteristics of a solar cell, types of solar cell, photovoltaic system applications, Stand-alone PV system configurations, Grid-connected PV systems.

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Chapter 9 : Neutral Grounding 9-1 to 9-20

Syllabus : System with ungrounded neutral, Neutral grounding, Advantages of neutral grounding, Methods of neutral grounding – Solid grounding, Resistance grounding, Reactance grounding, Resonant grounding, Voltage transformer earthing, Grounding transformer.

