

POWER SYSTEM PLANNING

Time : 3 Hours

Min. Passing Marks : 24

Maximum Marks : 80

Instruction to Candidates :

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)

Unit-I

1. (a) Explain Forecasting techniques modeling in detail. [8]
 (b) Write short note on technological forecasting and its methods. [8]

OR

1. (a) Write the Disadvantage of long term forecasting. [8]
 (b) Explain vertically integrated utilities. [8]

Unit-II

2. (a) Explain various types of a cogeneration system. [8]
 (b) Explain principles of generation planning and what are the option for power generation in India. [8]

OR

2. (a) Explain in detail pool electricity marketing. [8]
 (b) Write short note on power pooling and power trading. [8]

Unit-III

3. (a) Explain load management. [8]
 (b) Define use of computerized management in power system. [8]

OR

3. (a) Explain load management and load prediction in power system. [8]
 (b) What are objectives of state estimation? [8]

Unit-IV

4. (a) Explain state estimation in power system operation. [8]
 (b) How computer aided planning is useful in power system? [8]

OR

4. (a) Write short note on synchronous condenser. [8]
 (b) Explain wheeling charges in power system. [8]

Unit-V

5. (a) Define optimization problem incorporating the capital. [8]
 (b) Explain optimal power system planning term. [8]

OR

5. (a) Define reliability constraint of power system. [8]
 (b) Explain optimization technique for solution by programming use of flow chart. [8]