Roll No. Total No. of Pages : 01

Total No. of Questions: 08

M.Tech.(EE) (2019 Batch Elective-IV) (Sem.-3) POWER SYSTEM PLANNING

Subject Code: MTEE-302B M.Code: 72227

Time: 3 Hrs. Max. Marks: 100

INSTRUCTION TO CANDIDATES:

- 1. Attempt any FIVE questions out of EIGHT questions.
- 2. Each question carries TWENTY marks.
- Ql. (a) What are key indices of power system reliability?
 - (b) Enumerate importance of power system Planning.
 - (c) Explain optimal scheduling of generation.
 - (d) What are major factors in cost analysis of generation system?
- Q2. Show the linkages between reliability and capacity planning of power system. Illustrate with an example.
- Q3. What are the methods involved in automated transmission system expansion planning? Explain with suitable diagram with hardware and software involved if any.
- Q4. What is meant power loss compensation in a power distribution system? Explain important methods for ensuring voltage and power factor improvement.
- Q5. Write down the important factors involved in evaluating the cost associated with an expansion plant explain the effect of each one of them on overall expansion cost.
- Q6. What are components involved in sub transmission line and distribution line design? Illustrate with suitable example.
- Q7. Two turbo-alternators rated for 110MW and 210MW have governor drop characteristics of 5% from no load to full load .They are connected in parallel to share a load of 250MW. Determine the load shared by each machine assuming free governor action.
- Q8. Write short notes on:
 - (a) Automatic Transmission Planning
 - (b) Role of capacitor in distribution system
 - (c) Voltage Regulation
 - (d) Unit Commitment

NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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