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Total No. of Pages : 01

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M.Tech.(Power System) (2013 Batch) (Sem.-3)**POWER SYSTEM PLANNING**

Subject Code : MTPS-302B

M.Code : 72139

Time : 3 Hrs.

Max. Marks : 100

INSTRUCTION TO CANDIDATES :

1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWENTY marks.

- Q1. (a) How reliability and capacity planning are linked?
(b) What are importances of resource planning?
(c) What are key indices of power system reliability?
(d) What are major factors in cost analysis of generation system?
- Q2. What are components of generating system capacity planning? Highlight them with suitable example for each one.
- Q3. What are the methods involved in formulation of least cost optimization problems involving capital for power system planning? Justify with suitable example.
- Q4. Explain the trends and economic projection method used in forecasting in detail. Also, give example of each one.
- Q5. Write down the important factors involved in evaluating the multi area reliability of an interconnected system. Explain them with example.
- Q6. Discuss various investment planning models in power system planning .Also compare them with each other.
- 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) Power supply availability assessment
 - (b) Role of consumption pattern in planning
 - (c) Objectives of power planning
 - (d) Production Cost simulation

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.