

ONE TIME EXIT SCHEME

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10EE761

Seventh Semester B.E. Degree Examination, April 2018

Power System Planning

Time: 3 hrs.

Max. Marks:100

Note: Answer any *FIVE* full questions, selecting atleast *TWO* questions from each part.

PART – A

- 1 a. List out the constraints in planning an energy system. (06 Marks)
b. What is Load forecasting? Mention its advantages. (06 Marks)
c. Explain the different power system planning tools. (08 Marks)
- 2 a. Explain the basic process of co-generation. List out the benefits of co-generation. (10 Marks)
b. Explain the concept of power pooling and power trading in improving the power scenario. (10 Marks)
- 3 a. Discuss the need of private participation. List out the various benefits given by government to private investment. (10 Marks)
b. Mention the objectives of rational tariff. Explain the cost based tariff mechanism. (10 Marks)
- 4 a. Mention the objective of reactive power compensation and explain any four compensation scheme used in power system. (10 Marks)
b. Explain the concept of green house effect in power generation. (10 Marks)

PART – B

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- 5 a. What is Reliability? Explain the factors which affect reliability. (10 Marks)
b. With a neat schematic diagram, explain various means of load management. (10 Marks)
- 6 a. Explain the concept of reactive power balance in operational planning. Mention how system voltage can be maintained within limits. (10 Marks)
b. With a neat diagram, explain the computer management of power system. (10 Marks)
- 7 a. Develop a mathematical objective function of power system expansion planning. (10 Marks)
b. Explain the different constraints in optimization process. (10 Marks)
- 8 a. Explain the problem formulation steps in optimization process. (10 Marks)
b. Explain the linear programming optimization method. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.