



CBCS SCHEME

54

15EE744

Seventh Semester B.E. Degree Examination, Dec.2019/Jan.2020

Power System Planning

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Define planning process. Explain it with the help of a neat block diagram. (06 Marks)
b. With the help of a flow chart, explain the least cost utility planning. (10 Marks)

OR

- 2 a. Explain the forecasting techniques in detail. (10 Marks)
b. What is national and regional planning? Discuss the advantages and disadvantages. (06 Marks)

Module-2

- 3 a. Write a note on private participation in power sector. (08 Marks)
b. Explain the generation mix, with the help of relevant graphs. (08 Marks)

OR

- 4 a. Explain the pricing structure with respect to rational tariffs. (10 Marks)
b. Explain the conventional generation resources in brief. (06 Marks)

Module-3

- 5 a. Explain the distributed power generation with the special reference to its advantages over integrated (centralized) power generation. (08 Marks)
b. Explain the criteria for the transmission planning. (08 Marks)

OR

- 6 a. Mention the different advantages of high voltage transmission. (05 Marks)
b. Write a short note on renovation and modernization of power plants. (06 Marks)
c. Explain the sub-station development with respect to transmission. (05 Marks)

Module-4

- 7 a. Explain the distribution planning principles. (08 Marks)
b. Define system reliability and explain reliability planning criteria. (08 Marks)

OR

- 8 a. Write a short note on self-generation. (05 Marks)
b. Briefly explain the different electricity supply rules. (06 Marks)
c. Explain in brief the terms security and disaster management with reference to power system reliability. (05 Marks)

Module-5

- 9 a. Explain the demand response technologies with reference to demand side management. (08 Marks)
b. Explain the electricity market giving importance to market principles, power pool, market rules and power market. (08 Marks)

OR

- 10 a. Write a short note on energy audit. (05 Marks)
b. What is differential electricity? Explain. (06 Marks)
c. Explain the smart power market. (05 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.