



# CBCS SCHEME

15EE744

## Seventh Semester B.E. Degree Examination, Jan./Feb. 2021 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. With a block diagram, explain least cost utility planning. (08 Marks)  
b. Discuss the different planning tools. (08 Marks)

OR

- 2 a. Explain Electricity Rule 2005. (08 Marks)  
b. Describe the load forecasting Modelling in power system. (08 Marks)

### Module-2

- 3 a. Explain Private participation with respect to ownership options and modes of participation in power system. (08 Marks)  
b. With a neat diagram, explain Nuclear Technology. (08 Marks)

OR

- 4 a. Explain Generation Expansion planning, listing plan options, uncertainties of attributes. (08 Marks)  
b. Discuss in brief on Rational tariff/sound pricing. (08 Marks)

### Module-3

- 5 a. What is Co-generation? Describe two Co-generation techniques. (08 Marks)  
b. What is distributed power generation and explain with figure of wave energy? (08 Marks)

OR

- 6 a. Write a short note on High Rating Conductors. (08 Marks)  
b. Write a short note on Sub – Station bus – bar schemes. (08 Marks)

### Module-4

- 7 a. Explain Rural Electrification with the components of rural electrification. (08 Marks)  
b. Write a short note on Village Self sufficient in energy. (08 Marks)

OR

- 8 a. Explain Reliability planning with optimal reliability characteristics. (08 Marks)  
b. Explain the Quality of power problems in power system with respective voltage disturbance. (08 Marks)

### Module-5

- 9 a. Explain the demand response programmes. (08 Marks)  
b. Explain efficient energy uses with respect to Lighting and Agriculture pump sets. (08 Marks)

OR

- 10 a. Explain Power Pool, with a diagram. (08 Marks)  
b. Explain different types of Power markets. (08 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.