

# CBCS SCHEME

15EE744

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Seventh Semester B.E. Degree Examination, Dec.2018/Jan.2019

## 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. What do you mean by planning process? Mention the step-by-step procedure to planning action with block diagram. (08 Marks)
- b. With structural model explain different organizations in power system. (08 Marks)

OR

- 2 a. With the aid of schematic diagram, explain various strategies of load management. (08 Marks)
- b. Explain different demand forecasting techniques used in power system planning. (08 Marks)

### Module-2

- 3 a. With block diagram explain private participation with respect to ownership options and modes of participation in power system planning. (08 Marks)
- b. Mention national tariff policies and explain two types of basic tariffs. (08 Marks)

OR

- 4 a. What is generation mix? Explain the importance of pumped storage system. (08 Marks)
- b. Explain clean coal technologies used in coal based plants. (08 Marks)

### Module-3

- 5 a. Explain the criteria for transmission planning in power system. (08 Marks)
- b. What is distributed power generation and explain with figure biomass gasification. (08 Marks)

OR

- 6 a. What are the reasons and advantages favouring HVDC transmission lines? (08 Marks)
- b. Mention and explain different conductors used in transmission system. (08 Marks)

### Module-4

- 7 a. What are the different basic distribution systems used by utilities and explain radial and loop systems with figure. (08 Marks)
- b. What are the national rural electrification policies and main components of rural electrification? (08 Marks)

OR

- 8 a. Explain criteria for generation reliability. (08 Marks)
- b. With flow diagram explain total system reliability cost analysis. (08 Marks)

### Module-5

- 9 a. With block diagram, explain energy-efficiency programmes (08 Marks)
- b. What is demand response? Explain demand-response planning with block diagram. (08 Marks)

OR

- 10 a. What are the principles for the electricity market? (10 Marks)
- b. Name different types of power markets. (06 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.

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