

# CBCS SCHEME

15EE752



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## Seventh Semester B.E. Degree Examination, Jan./Feb.2021 Testing & Commissioning of Power System Apparatus

Time: 3 hrs.

Max. Marks: 80

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

### Module-1

- 1 a. Explain the various steps in installation of transformers. (08 Marks)
- b. With neat sketch, explain rating and terminal plate for power transformers. (08 Marks)

OR

- 2 a. Explain the significance of polarity and phase sequence with respect to transformers. (05 Marks)
- b. What are the qualities of good insulating oil? (05 Marks)
- c. Briefly explain the different steps in dryingout process of transformers. (06 Marks)

### Module-2

- 3 a. Write the specifications of synchronous machines as per BIS standards. (06 Marks)
- b. Define Excitation system. Explain brushless excitation system. (06 Marks)
- c. List the various tests performed on synchronous generators. (04 Marks)

OR

- 4 a. With neat sketch, explain sudden 3- $\phi$  short circuit test on generator. (08 Marks)
- b. With relevant equations, explain slip-test and calculation of  $x_q$  and  $x_d$ . (08 Marks)

### Module-3

- 5 a. List and explain the important steps in selection of an induction motor for specific applications. (08 Marks)
- b. With neat sketches, explain alignment of shaft with respect to induction motors. (08 Marks)

OR

- 6 a. With neat sketches, explain the various methods of drying out of induction motors. (06 Marks)
- b. Explain in brief, mechanical alignment and air gap symmetry with respect to induction motors. (04 Marks)
- c. What is the importance of temperature rise test? Explain the methods of measuring temperature rise. (06 Marks)

### Module-4

- 7 a. With respect to underground cables, list the various steps involved in transportation and handling of cables. (08 Marks)
- b. Explain the various steps in Excavation of trenches. (08 Marks)

OR

- 8 a. Explain testing and commissioning of cable jointing and terminations. (08 Marks)
- b. Explain in brief, location of faults using megger. (08 Marks)

### Module-5

- 9 a. Write the functions of different devices used in protection of Electrical equipment. (08 Marks)
- b. List the standard specifications of high voltage circuit breaker. (08 Marks)

OR

- 10 a. Explain the various steps in testing of electrical installation of a building. (08 Marks)
- b. List IE rules for domestic installation. (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.