

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- ϕ 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.