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Seventh Semester B.E. Degree Examination, June/July 2017
Testing and Commissioning of Electrical Equipment

Time: 3 hrs.

Max. Marks: 100

**Note: Answer FIVE full questions, selecting
at least TWO questions from each part.**

PART – A

- 1 a. What are the standard specifications of power transformer? (08 Marks)
b. Explain the points to be considered in the selection of site and location of power transformer. (08 Marks)
c. What are the desired properties of transformer oil? (04 Marks)
- 2 a. With a schematic sketch, explain the Buchholz relay used for protection of transformer. (10 Marks)
b. Describe the test set up for impulse testing of power transformer. (10 Marks)
- 3 a. What are the various cooling arrangements employed for synchronous (Generator). (10 Marks)
b. Describe the procedure for slip test and calculation of X_q and X_d from the same. (10 Marks)
- 4 a. Explain the sudden 3-phase short circuit test on a 3- ϕ generator. How to calculate X_d'' , X_d' and X_d from the 3- ϕ short circuit test? (10 Marks)
b. State the various enclosures adopted in a generator. (05 Marks)
c. Explain the principle of brushless excitation system. (05 Marks)

PART – B

- 5 a. Explain the requirement of civil engineering works and foundation work for medium and large induction motors. (10 Marks)
b. What is drying out? Explain the different drying out method adopted in induction motors. (10 Marks)
- 6 a. Explain how static and Dynamic balancing of rotor of induction motor is done. (10 Marks)
b. State the various steps involved in the installation and commissioning of induction motor. (10 Marks)
- 7 a. Explain how no load and blocked rotor tests are used to determine the efficiency of a given induction motor. (10 Marks)
b. Explain the various steps in maintenance of circuit breaker. (10 Marks)
- 8 Write short notes on the following :
a. Polarization index
b. List the different types of test conducted on circuit breaker
c. Types of cooling systems in transformers
d. Specifications of high voltage circuit breaker. (20 Marks)

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