ONE TIME EXIT SCHEME

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10EE756

Seventh Semester B.E. Degree Examination, April 2018
Testing and Commissioning of Electrical Equipment

Time: 3 hrs. Max. Marks:100

Note: ***Answer any FIVE full questions, selecting atleast TWO questions from each part.***

PART – A

1 a. Name and explain briefly the various accessories of a transformer. **(10 Marks)**

b. Explain the filtering plant and filtering process of transformer oil. **(10 Marks)**

2 a. Define Polarization Index. Explain the procedure of drying out of power transformer with drying out curve. **(10 Marks)**

b. Describe the test set up for impulse testing of power transformer with necessary circuit diagrams. **(10 Marks)**

3 a. Write typical ratings (specifications) of synchronous generators. **(10 Marks)**

b. Explain the sudden three – phase short circuit test on a three – phase generator also explain how to calculate x'_d , x''_d and x_d from $3-\phi$ s.c. test. **(10 Marks)**

4 a. With neat sketch, explain the functioning of brushless (static) excitation system. **(10 Marks)**

b. Define (SCR) Short Circuit Ratio of a synchronous machine. Explain the procedure of determining the SCR of a synchronous machine. **(10 Marks)**

PART – B

5 a. With sketch, explain the procedure of foundation work for medium and large induction motors. **(10 Marks)**

b. Explain the significance of balancing of rotor. How is static and dynamic balancing of rotor is achieved in Induction motor? **(10 Marks)**

6 a. Explain the drying out methods of Induction motor, with necessary sketches. **(10 Marks)**

b. State the various abnormal operating conditions in Induction motor and their causes. **(10 Marks)**

7 a. State the various steps in installation of a large rotating machines received in dismantled condition. **(10 Marks)**

b. Explain the procedure of high voltage tests on rotating machines. **(10 Marks)**

8 a. Explain the various steps in maintenance of circuit breaker. **(10 Marks)**

b. With the layout diagram of a simple short circuit testing station, explain the procedure of conducting short circuit test on circuit breaker. **(10 Marks)**

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