

# ONE TIME EXIT SCHEME

USN

--	--	--	--	--	--	--	--

**CMRIT LIBRARY**  
BANGALORE - 560 037

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)

**CMRIT LIBRARY**  
BANGALORE - 560 037

\*\*\*\*\*

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.