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10EE756

**Seventh Semester B.E. Degree Examination, Dec.2016/Jan.2017**  
**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. With neat sketch name the various accessories and fitments on transformer and briefly explain the function of each accessories. (10 Marks)  
b. Which are the four phasor groups adopted for standard connection of transformers? Explain any one with phasor diagram and winding connection. (10 Marks)
- 2 a. Explain the step by step procedure for drying out of a power transformer. (10 Marks)  
b. What is impulse testing? Explain the test set up used for impulse testing of transformers. (10 Marks)
- 3 a. Explain the function and principle of brush less excitation system. (10 Marks)  
b. State the various types of enclosures for rotating electrical machines and the types of cooling adopted in them. (10 Marks)
- 4 a. State and explain the procedure of various tests on synchronous machine and their significance. (10 Marks)  
b. Explain the procedure of low slip test and method of calculation of  $X_q$  from the same. (10 Marks)

**PART – B**

- 5 a. Give an example of rating plate of an induction motor. (05 Marks)  
b. Explain the procedure of foundation of electric machines. (10 Marks)  
c. Explain the procedure of shaft alignment of electrical machines. (05 Marks)
- 6 a. Explain the procedure of assembly of bearing on a shaft and state the various troubles with bearings and their remedies. (12 Marks)  
b. State the various categories of tests on 3-phase induction motor. (08 Marks)
- 7 a. Explain no load test and locked rotor test on a 3 – phase induction motor. What data does such a test provide? (10 Marks)  
b. Explain the different methods of measurement of slip of a induction motor. (10 Marks)
- 8 a. What are the important rated quantities of low voltage AC circuit breakers? (10 Marks)  
b. Explain the procedure of installation of circuit breakers and metal clad switch gears. (10 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.