

NEW SCHEME

EE666

Reg. No.

Sixth Semester B.E. Degree Examination, January/February 2006

**Electrical & Electronics Engineering
Testing & Commissioning of Electrical Equipment**

Time: 3 hrs.)

(Max.Marks : 100

Note: Answer any FIVE full questions.

1. (a) Mention the important specification of power transformer. (5 Marks)
(b) Explain the civil work associated with transformer foundation. (5 Marks)
(c) Explain the standard vector groups of 3 - ϕ transformer connections. Give the summary of common 3 - ϕ connections. (10 Marks)
2. (a) State the purpose of conducting H.V. test on power transformers. State & explain which H.V. tests are performed on power transformer as type test and routine test. (10 Marks)
(b) State the important steps in maintenance of power transformer. (10 Marks)
3. (a) State the various steps in the installation and commissioning of induction motor and electrical machine. (8 Marks)
(b) State the various categories of test on 3 - ϕ induction motor. (6 Marks)
(c) Explain the no load test on 3 - ϕ induction motor. What data such a test provide? (6 Marks)
4. (a) State the various steps in drying out an induction motor. (6 Marks)
(b) How can you measure the slip of an induction motor and explain the different methods of measurement of slip. (6 Marks)
(c) State the information usually contained in the instruction manual for installation and maintenance, supplied by manufacturers of induction motors. (8 Marks)
5. (a) Explain the function of excitation system and principle of brushless excitation system. (10 Marks)
(b) State and explain the procedure of various tests on synchronous machine and their significance. (10 Marks)
6. (a) State the various types of enclosures for rotating electrical machine and the type of cooling adopted in them. (10 Marks)
(b) Explain the significance of balancing of rotor. How is balancing achieved? (10 Marks)
7. (a) State and explain the various ratings of high voltage A.C. circuit breaker. (10 Marks)
(b) Explain the various steps in maintenance of circuit breakers. (10 Marks)
8. (a) Explain the layout of simple short circuit testing station and procedure of conducting short circuit test on circuit breaker. (10 Marks)
(b) Write short notes on
 - i) Alignment of shaft of electrical machines. (5 Marks)
 - ii) Testing of transformer oil. (5 Marks)
