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EE666

Sixth Semester B.E. Degree Examination, June/July 08
Testing and Commissioning of Electrical Equipment

Time: 3 hrs.

Max. Marks:100

Note : Answer any FIVE full questions.

- 1 a. Explain the various types of cooling of power transformers. (10 Marks)
b. What are the standard specifications of a power transformer? (04 Marks)
c. Mention and explain the typical test carried out on transformer before commissioning. (06 Marks)

- 2 a. Explain in detail impulse testing of power transformer. (06 Marks)
b. What are the qualities of a good insulating oil? (04 Marks)
c. Explain the procedure for drying of windings of transformer with and without oil. (10 Marks)

- 3 a. Write a brief note on testing of transformer oil. (05 Marks)
b. Explain the working of a Buchholtz relay with the help of a diagram. (05 Marks)
c. Explain mechanical testes for alignment and air gap symmetry. (10 Marks)

- 4 a. State different types of electrical tests done on induction motor. Explain any one test in detail. (10 Marks)
b. Explain the methods of drying out of induction motors. (10 Marks)

- 5 a. Explain how you obtain the performance of an induction motor in respect of
i) Speed ii) Power factor iii) Efficiency iv) Slip v) Current. (10 Marks)
b. Explain the measurement of vibration and balancing of rotating machines. (10 Marks)

- 6 a. Enumerate the various steps of installation of a synchronous machine. (07 Marks)
b. Define short circuit ratio of synchronous machine and explain how it is obtained. (07 Marks)
c. Give the details of excitation system used in synchronous machine. (06 Marks)

- 7 a. Explain the method of determining the insulation resistance of an alternator. (10 Marks)
b. State and explain the various abnormal conditions in synchronous generator and their effects. (10 Marks)

- 8 a. State the various types of tests performed on high voltage A.C circuit breaker. (10 Marks)
b. Write explanatory notes on maintenance of circuit breakers. (10 Marks)