

**EE 331**

**ELECTRICAL MACHINES LAB -I**

Instruction	3 Periods per week
Duration of University Examination	3 Hours
University Examination	50 Marks
Sessional	25 Marks

**List of Experiments:**

1. Magnetization characteristics and the speed Vs voltage curve of separately and self excited D.C. generator
2. Load characteristics of separately excited and Shunt Generators
3. Load characteristics of Compound generator
4. Performance characteristics of Series Motor
5. Performance characteristics of D.C. shunt motor
6. Performance characteristics of Compound motor
7. Separation of iron and friction losses and estimation of parameters in D.C. machines.
8. (a) Speed control of D.C. shunt motor by shunt field control and armature resistance control (b) Swinburn's Test
9. Separation of core losses in a Single Phase transformer
10. Open circuit and short circuit tests on a Single Phase transformer
11. Sumpner's test on two identical transformers
12. Estimation of efficiency of DC Machine by Hopkinson test.

**Note: ATLEAST 10 EXPERIMENTS SHOULD BE CONDUCTED IN THE SEMESTER**