

**3/4 B.Tech. FIFTH SEMESTER****EE5L1****ELECTRICAL MACHINES LAB – II****Credits: 2****Lecture: --****Internal assessment: 25 marks****Lab : 3 periods/week****Semester end examination: 50 marks****Course Objective:**

In this lab students understand the performance of single phase transformer, parallel operation of transformer, performance of induction motor and equivalent circuit of single phase induction motor.

**Course Outcomes:**

After completing this lab course, student is be able to

1. Understand the performance of the single phase transformer at no load and full load,
2. Connect transformers in parallel operation
3. Understand the performance of three phase induction motor,
4. Understand the performance of single phase induction motor.

**List of experiments:**

**Any 10 of the following experiments are required to be conducted:**

1. O.C. & S.C. tests on single phase transformer
2. Sumpner's test on single phase transformers
3. Scott connection of transformers
4. Parallel operation of two single phase transformers
5. Separation of core losses of a single phase transformer
6. Measurement of harmonics in three phase transformer
7. Brake test on three phase induction motor
8. No-load & blocked rotor tests on three phase squirrel cage induction motor
9. Equivalent circuit of a three phase induction motor and measurement of slip power.
10. Equivalent circuit of a single phase induction motor
11. Brake test on single phase induction motor
12. Speed control of three phase induction motor