33045- ELECTRICAL MACHINES AND INSTRUMENTATION PRACTICAL

DETAILED SYLLABUS

OBJECTIVES

On completion of this practical subject the students will be able to

- Understand the characteristics of AC machines.
- Make various electrical measurements.
- Use transducers in non electrical quantity measurement.

LIST OF EXPERIMENTS

1. Predetermine the regulation of alternator.
2. Load test on 3 phase alternator.
3. Synchronisation of 3Φ alternators.
4. Load test on 1 phase induction motor.
5. Load test on 3 phase induction motor.
6. Determine the equivalent circuit constants of 3 phase induction motor.
7. Predetermine the performance of a 3 phase induction motor.
8. Improvement of power factor of an induction motor with load.
9. Calibration of given ammeter and voltmeter.
10. Calibration of given wattmeter.
11. Calibration of 3 phase energy meter.
12. Measurement of alternator winding resistance using Wheatstone bridge
13. Measurement of value of unknown capacitance using Schering Bridge.
14. Measurement of value of unknown inductance using Anderson Bridge.
15. Displacement measurement using LVDT.
16. Measurement of earth resistance by using megger.