# Electrical Engineering

## Subject Name: Electrical Machine – II

## Subject Code: 3150910

| Sr.No. | Experiment |
|---|---|
| 1 | To study the construction of 3 phase Induction Motor with the help of cut section model. |
| 2 | To study the starter of 3-phase induction motor. |
| 3 | To perform no load and blocked rotor test on three phase induction motor to obtain the parameters of equivalent circuit |
| 4 | To perform no load and blocked rotor test on three phase induction motor to evaluate the performance parameters using circle diagram |
| 5 | To perform no load and blocked rotor test on single phase induction motor to obtain the parameters of equivalent circuit |
| 6 | To obtain the performance parameters of three phase induction motor using direct load test. |
| 7 | To find out the voltage regulation of three phase alternator using direct load test |
| 8 | To perform open circuit, short circuit and resistance measurement tests on alternator to find out its voltage regulation using synchronous impedance method and MMF mehod. |
| 9 | To perform open circuit, short circuit, zero power factor and resistance measurement tests on alternator to find out its voltage regulation using ZPF method. |
| 10 | To perform synchronization of alternator using dark lamp method, two bright one dark lamp method and synchroscope. |
| 11 | To obtain the v-curves of a synchronous motor. |

# Electrical Engineering

## Subject Name: Electrical Machine – I

## Subject Code: 3140913

| Sr.No. | Experiment |
|---|---|
| 1 | To study the single-phase and three phase transformer. |
| 2 | To study and construction of D.C Machine. |
| 3 | To conduct open circuit and short circuit test on a single phase transformer and determine the equivalent circuit parameters. |
| 4 | To perform the direct loading test on single phase transformer. |
| 5 | To perform the test or back to back test on single phase transformer. |
| 6 | To operate two single phase transformers of different KVA ratings in parallel and plot the variation of currents shared by each transformer versus load current. |
| 7 | To study different starters use in D.C Machine. |
| 8 | To obtain Magnetizing Characteristics, Internal & External Characteristic of Self Excited DC Shunt Generator. Also obtain the critical filed resistance of the machine from magnetizing Characteristics. |
| 9 | To perform filed test on D.C. Shunt motor. |
| 10 | To perform direct load test and field test on a D.C. shunt motor to obtain speed torque characteristics and Efficiency. |
| 11 | Speed control of DC Shunt Motor using a) Armature control and b) field control methods. Also perform Swinburne's test on DC Shunt Motor. |