



SANTHIRAM ENGINEERING COLLEGE, NANDYAL

Department of Electrical and Electronics Engineering

Name of the Laboratory: ELECTRICAL TECHNOLOGY

Regulation: R19

Branch: Electronics & Communication Engineering

Year & Sem: II- I

Course Objectives

- To do experiments on DC generators
- To do experiments on DC motors
- To do experiments on 1- ϕ transformer
- To do power measurements in 3- ϕ balanced and unbalanced circuits
- To do tests on 3- ϕ Induction motors
- To do experiment on Alternator
- To do experiment on Synchronous motor

Course Outcomes

- To understand various characteristics of DC generators and DC motors
- To predetermine the efficiency and regulation of a 1- ϕ transformer
- To know power measurement in 3- ϕ circuits
- To understand various characteristics of Induction motors, Synchronous machines

List of Experiments

1. OCC of a separately excited DC generator
2. Load characteristics of DC shunt generator
3. Load characteristics of DC shunt motor
4. Swinburne's test
5. Speed control of DC shunt motor
6. OC & SC tests on a 1- ϕ transformer
7. Measurement of Active and reactive powers in a 3- ϕ balanced circuit
8. Measurement of 3- ϕ power using two wattmeter method in unbalanced circuit
9. Load test on Squirrel cage Induction motor
10. Load test on Slip ring Induction motor
11. Predetermination of regulation of alternator by Synchronous impedance method
12. V and Inverted V curves of Synchronous motor

List of Equipments

1. DC Shunt Motor Coupled to 5 Hp, 220 V, 1500 RPM DC Shunt Generator
2. Dc Shunt Motor & Alternator Set
3. Dc Shunt Motor & Alternator Set
4. Single Phase Transformer With Auto Transformer Equipment
5. Single Phase Transformer With Resistive Load Equipment



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