

**SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES,
CHITTOOR -517127
(AUTONOMOUS)
DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING**

B.TECH II-II SEM (E.E.E)

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SUB CODE: 16EEE225

**ELECTRICAL MACHINES – I LAB
(ANY TEN OF THE FOLLOWING)**

OBJECTIVES:

- To identify various parts of DC machine and different types of starters.
- To analyze the performance of various DC machines.
- To determine the characteristics and performance of DC machines.

1. MAGNETIZATION CHARACTERISTICS OF DC SHUNT GENERATOR.DETERMINATION OF CRITICAL FIELD RESISTANCE AND CRITICAL SPEED
2. SWINBURNE'S TEST AND SPEED CONTROL OF DC SHUNT MOTOR.PREDETERMINATION OF EFFICIENCIES
3. BRAKE TEST ON DC SHUNT MOTOR. DETERMINATION OF PERFORMANCE CURVES
4. BRAKE TEST ON DC COMPOUND MOTOR. DETERMINATION OF PERFORMANCE CURVES
5. SEPARATION OF LOSSES IN DC SHUNT MOTOR
6. RETARDATION TEST ON DC SHUNT MOTOR. DETERMINATION OF LOSSES AT RATED SPEED
7. LOAD TEST ON DC SEPARATELY EXCITED GENERATOR TO DETERMINE ITS CHARACTERISTICS.
8. LOAD TEST ON DC SHUNT GENERATOR. DETERMINATION OF CHARACTERISTICS
9. LOAD TEST ON A DC COMPOUND GENERATOR. DETERMINATION OF CHARACTERISTICS
10. LOAD TEST ON DC SERIES GENERATOR. DETERMINATION OF CHARACTERISTICS
11. HOPKINSON'S TEST ON DC SHUNT MACHINE. PREDETERMINATION OF EFFICIENCY.

12. FIELD'S TEST ON DC SERIES MACHINES.DETERMINATION OF EFFICIENCY

COURSE OUTCOMES

On successful completion of the course, student will be able to

1. identify various parts of DC machine and different types of starters.
2. analyze the performance of various DC machines.
3. Acquire skills in
 - obtaining various characteristics of DC machines.
 - determining the performance of DC machines.
 - determining and separating losses in DC machines.

University Nominee
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