

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE MATERIAL

FACULTY DETAILS

Name of the Faculty	Dr.S.RENUKADEVI
Designation	ASSISTANT PROFESSOR
Department	ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE DETAILS

Name of the Course	B.E
Branch	CSE
Year/Sem	I/I
Subject Code	CESEE24P70
Title of the subject	BASIC ELECTRICAL ENGINEERING LAB
Batch	2024-2025

TOPIC: BASIC ELECTRICAL ENGINEERING LAB LAB

VIVA QUESTIONS

CYCLE-I

1. B-H CURVE

- a. What is Flux Density
- b. What is a magnetic field?
- c. Define magnetizing force (H).
- d. Define magnetic induction (B).
- e. What is permeability?
- f. What is the purpose of the B-H curve experiment?

2. HALF WAVE RECTIFIER

- a. Which type of rectifier is the half wave rectifiers?
- b. What is the purpose of filters in half wave rectifier?
- c. What is form factor?
- d. What is peak factor?
- e. Define ripple factor in rectifiers.

3. KCL & KVL

- a. What is electric current?
- b. Define Electric Potential?
- c. What is Resistance?
- d. State Ohm's Law
- b. State Kirchhoff's voltage Law.
- c. State Kirchhoff's current Law.

4. THEVENIN'S THEOREM

- a. State Thevenin's theorem
- b. How do you determine Thevenin's equivalent resistance?
- c. Limitations of Thevenin's theorem.

5. MEASUREMENT OF AMMETER ,VOLTMETER AND AMMETER

- a. What is an ammeter?
- b. Why is an ammeter, connected in series in a circuit?
- c. What is the internal resistance of an ammeter and why is it important?
- d. What are some common types of ammeter?
- e. What is a voltmeter?
- f. What are some common types of voltmeter?
- g. What is the difference between voltmeter and ammeter?
- h. Why is a voltmeter connected in parallel in a circuit?
- i. How does a multimeter differ from a voltmeter?

CYCLE-II

6. SLIP TORQUE CHARACTERISTICS OF SINGLE PHASE INDUCTION MOTOR

- a. Why single phase induction motors are not self-starting?
- b. What are the types of single phase induction motor?
- c. In what respect does a 1-phase Induction motor differ from a 3-phase Induction motor?
- d. State its applications

7. SLIP TORQUE CHARACTERISTICS OF THREE PHASE INDUCTION MOTOR

- a. What is slip of an induction motor?
- b. State the advantages of skewing?
- c. How can the direction of rotation of the 3- ϕ induction motor be reversed?

8. SPEED CONTROL OF THREE PHASE INDUCTION MOTOR

- a. Why is an induction motor not capable of running at synchronous speed?
- b. What are the different starters needed for three phase induction motors?
- c. Why are starters needed for induction motors?
- d. What are the various methods of speed control of 3 phase induction motor?

9. 1LOAD TEST ON SINGLE PHASE TRANSFORMER

- a. What is the principle of transformer?
- b. What are the types of transformer?
- c. Why is the capacity of transformer mentioned as KVA and not as KW?
- d. What are the losses in transformer?
- e. What is the condition for maximum efficiency of a transformer?
- f. What are the applications of transformer?

10.SPEED CONTROL ON DC SHUNT MOTOR

- a. How does the speed of a DC shunt motor vary with armature voltage and field current?
- b. Which is of the two methods of speed control is better and why?
- c. What is the importance of speed control of DC motor in industrial applications?
- d. What are the factors affecting the speed of a DC shunt motor?