BASIC ELECTRICAL ENGINEERING LAB SYLLABUS

1. Verification of Kirchhoff's Voltage Law (KVL)

- Analyze and verify Kirchhoff's Voltage Law in a given electrical circuit.

2. Verification of Kirchhoff's Current Law (KCL)

- Analyze and verify Kirchhoff's Current Law in a given electrical circuit.

3. Verification of Maximum Power Transfer Theorem

- Demonstrate and verify the maximum power transfer theorem using a resistive network.

4. Sinusoidal Steady-State Response of RLC Circuits

- Study the sinusoidal steady-state response in RL, RC, and RLC circuits.

5. Wiring Circuit for a Single Lamp and a Fan with Regulator

- Design and implement a wiring circuit for a single lamp and a fan with a speed regulator.

6. Wiring Circuit for Godown with Two-Way Switch

- Design and implement a two-way switch wiring circuit for a godown lighting system.

7. Load Test on Single-Phase Transformer/DC Motor

- Perform a load test on a single-phase transformer or DC motor to analyze performance.

8. Measurement of Power in a Single-Phase AC Load

- Measure and analyze the power consumption of a given single-phase AC load.

9. Measurement of Power and Energy Consumed by a Given Three-Phase AC Load

- Measure the power and energy consumption of a three-phase AC load using suitable instruments.

10. Study of Earthing and Measurement of Earth Pit Resistance

- Study the principles of electrical earthing and measure the earth pit resistance.

11. Cost Estimation of Residential Electrical Wiring

- Estimate the cost of electrical wiring for a residential setup based on requirements.

12. Electrical Layout for a Residential/Commercial/Industrial Application Using CAD Software

- Design an electrical layout for a residential, commercial, or industrial application using CAD software.