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| **B. TECH 1st SEMESTER** | **L** | **T** | **P** | **C** |
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| **19EE2L01: BASIC ELECTRICAL ENGINEERING LAB** | | | | |

**COURSE OUTCOMES: *After successful completion of this course, students should be able to:***

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| CO1 | : | Handle Various Electric Instruments and Solve DC Circuits Using Network Theorems |
| CO2 | : | Determine Resonance Frequency and Perform Voltage, Current and Power Measurement On Three Phase Circuit |
| CO3 | : | Determine and Predetermine the Performance of DC Machines |
| CO4 | : | Determine and Predetermine the Performance of Transformers and AC Machines |

**LIST OF EXPERIMENTS**

1. Practice on Measuring Instruments – Voltmeter, Ammeter, Millimeter, Oscilloscope.
2. Verification of KCL and KVL.
3. Verification of Thevenin’s Theorem.
4. Verification Norton’s Theorem.
5. Verification Superposition Theorem.
6. Resonance in R-L-C Circuits.
7. Measurement of Voltage and Current using Three Phase Star/Delta Connections.
8. Measurement of Three-Phase Power in Balanced Circuits.
9. Open Circuit Characteristics of DC Shunt Generator.
10. Load Characteristics of DC Shunt Generator.
11. Speed-Torque Characteristic of DC Motor.
12. Open Circuit and Short Circuit Test on a Single Phase Transformers.
13. Regulation of Alternator Using EMF Method.

**Note: Any Ten Experiments will conduct from the above experiments**

**REFERENCE:**

1. Department lab manual.