ELECTRICAL SIMULATION TOOLS LABORATORY

Any Ten of the following experiments should be conducted

1. Basic matrix operations, Generation of standard test signals
2. Find loop currents using Mesh Analysis
3. Find nodal voltages and branch voltages using nodal voltages
4. Basic 2D plots of simple equation
5. Measurement of Voltage, Current and Power in DC circuits.
6. Verification of Thevenin's Theorem using suitable simulation tools.
7. Verification of Superposition Theorem using suitable simulation tools.
8. Analysis of series and parallel resonance circuits using suitable simulation tools
9. Obtaining the response of electrical network for standard test signals using suitable simulation tools.
10. Solving the linear and nonlinear differential equations
11. Verification of performance characteristics of PN junction diode and Zener diode using suitable simulation tools.
12. Analysis of half wave rectifier with and without filter.