SAVEETHA SCHOOL OF ENGINEERING

SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES

Basic Electrical and Electronics Engineering

List of Experiments

1. Verification of Ohm's law & Kirchhoff's law.

2. Calculate the individual branch currents and total current drawn from the power supply for the following set of resistors connected together in a parallel using current and voltage division rules.

3. Verification of star-delta transformation using resistance reduction technique.

4. Verification of Thevenin's and Norton's Theorems.

5. Verification of Superposition and Maximum power transfer Theorems.

6. Load test on Single Phase Transformer.

7. To obtain equivalent circuit, efficiency and voltage regulation of a single-phase transformer using O.C. and S.C. tests.

8. Calculation of Secondary turns and Current in a transformer.

9. Load test on Single phase Induction Motor.

10. To determine the output characteristics of LVDT and calibrate the measuring instruments.

11. Power measurement using two wattmeter methods.

12. Calculate the energy consumption using the Energy meter.

13. Load test on DC shunt Motor.

14. Staircase Wiring & Fluorescent tube wiring

15. Find Stability of a System Using Routh Hurwitz Criterion.

16. Investigating the Performance of Three-Phase Induction Motor Drive Systems in Electric Vehicle Applications.

17. Write SCILAB program to generate the following signals:

    (a) Unit step signal

    (b) Unit Impulse signal

    (c) Unit ramp signal

    (d) Sinusoidal signal

    (e) Exponential signal

18. Write a SCILAB program to obtain the following:

    (a) DIT-FFT Algorithm

    (b) DIF-FFT Algorithm

19. Design a filter using the Transformation Method.

    (a) Bilinear Transformation

    (b) Impulse Invariant Transformation

20. Write the SCILAB program to design the following Butterworth filters

    (a)Low pass filter

    (b)High pass filter

    (c)Band pass filter

    (d)Band reject filter.