35234 – ELECTRICAL AND ELECTRONICS ENGINEERING PRACTICAL

DETAILED SYLLABUS

OBJECTIVES

On completion of the following practical contents the students must be able to

- Verify Power supply of SMPS
- Find the efficiency and voltage regulation of a single phase transformer
- Study the characteristics of PN junction diode and Zener Diode
- Function of Rectifier circuit
- Test the performance of Light devices
- Know about the function of a Transistor
- How to construct different logic functions using universal gates
- Realize the combinational circuits and sequential circuits

LAB EXERCISES

1.	A	Checking of power supply in SMPS
	B	To determine Efficiency and Voltage Regulation of single phase transformer using direct loading method
2.	A	Construct the circuit and draw the forward characteristics of PN junction Diode and find input resistance
	B	Construct the circuit and draw the reverse characteristics of Zener Diode and find breakdown voltage.
3.		Construct the circuit and draw the graph for different stages of Bridge rectifier with filter using CRO
4.	A	A Construct the circuit and draw the characteristics of LDR
	B	Construct the circuit and draw the VI characteristics of LED
5.	A	A Construct CE configuration circuit and draw the input characteristics and also find input resistance
	B	Construct CE configuration circuit and draw the output characteristics and also find output resistance.
6.	A	A Verify the truth tables of NAND,AND,NOR,OR,NOT,XOR using IC's
	B	Realization of basic gates using either NAND or NOR gate.

7.		Construct and verify Half adder and Half Subtractor
8.		Construct and verify the truth table of Full adder
9.		Construct and verify the truth table of Full subtractor
10.		Verify the truth tables of RS, D, T and JKFF
11.		Construct and test the parity generator and checker function using IC 74180
12.		Construct and test encoder and decoder circuit(IC 74138)
13.		Construct and test the function of Multiplexer and De-multiplexer (IC 74151).
14.		Construct and test the 4 bit Ripple counter (IC7493)
15.		Construct and test decade counter (IC 7490)