(R 2021) SEMESTER – II GE1207 ENGINEERING PRACTICES LABORATORY

LIST OF EXPERIMENTS

GROUP B (ELECTRICAL & ELECTRONICS)

III ELECTRICAL ENGINEERING PRACTICE

- 1. Residential house wiring using switches, fuse, indicator, lamp and energy meter.
- 2. Fluorescent lamp wiring.
- 3. Stair case wiring
- 4. Measurement of electrical quantities voltage, current, power & power factor in RLC circuit.
- 5. Measurement of energy using single phase energy meter.
- 6. Measurement of resistance to earth of an electrical equipment.

IV ELECTRONICS ENGINEERING PRACTICE

- 1. Study of Electronic components and equipments Resistor, colour coding measurement of AC signal parameter (peak-peak, RMS period, frequency) using CR.
- 2. Study of logic gates AND, OR, EX-OR and NOT.
- 3. Generation of Clock Signal.
- 4. Soldering practice Components Devices and Circuits Using general purpose PCB.
- 5. Measurement of ripple factor of HWR and FWR.

LIST OF EQUIPMENT & COMPONENTS

| SI. No. | Description of Equipment |
|------------|--|
| 1. | Assorted electrical components for house wiring |
| 2. | Electrical measuring instruments |
| 3. | Study purpose items: Iron box, fan and regulator, emergency lamp |
| 4. | Megger (250V/500V) |
| 5. | Power Tools: (a) Range Finder |
| | (b) Digital Live-wire detector |
| 6. | Soldering guns |
| 7. | Assorted electronic components for making circuits |
| 8. | Small PCBs |
| 9. | Multi Meters |
| 10. | Study purpose items: Telephone, FM radio, low-voltage power supply |

(R 2021) SEMESTER – II <u>EC1208 CIRCUITS AND DEVICES LABORATORY</u>

LIST OF EXPERIMENTS

- 1. Characteristics of PN Junction Diode
- 2. Zener diode Characteristics and Regulator using Zener diode
- 3. Common Emitter input-output Characteristics
- 4. Common Base input-output Characteristics
- 5. FET Characteristics
- 6. SCR Characteristics
- 7. Clipper and Clamper & FWR
- 8. Verifications of Thevenin & Norton theorem
- 9. Verifications of KVL & KCL
- 10. Verifications of Super Position Theorem
- 11. Verifications of maximum power transfer & reciprocity theorem
- 12. Determination of Resonance Frequency of Series & Parallel RLC Circuits
- 13. Transient analysis of RL and RC circuits

LIST OF EQUIPMENT & COMPONENTS

| SI. No. | Description of Equipment |
|------------|--------------------------------------|
| 1. | CRO(30MHz) |
| 2. | Function Generators(3MHz) |
| 3. | Dual Regulated power Supplies(0-30V) |
| 4. | BC107,BC148,2N2646,BFW10 |
| 5. | IN4007,Zener diodes |
| 6. | Resistors, Capacitors, Inductors |
| 7. | Bread Boards |