Name of the Laboratory

Basic Electronics Lab

(PEC-151)

Important Instructions along with List of experiments and evaluation scheme

Course Outcomes:

- **An in-depth understanding of basic active and passive components.**
- **Characteristics of diode and transistors.**
- **Implementation of electronic circuits on the bread board.**
- **An in-depth understanding of basic logic gates.**

Instructions to be followed by students

1. Students will perform the experiments according to above-mentioned list of experiments.
2. If students feel any problem, they can consult the respective **lab faculty** through official mail id navneetkaur@gehu.ac.in or through WhatsApp contact number 9781228085.
3. Students have to note all the results (readings and graph) including observation table.
4. **Students should write -up the experiment by hand, then scan through mobile and combine with all snapshots. Student has to sign on each page of write-up.**
5. **Students should write the Name, roll no and Section on the top of the first page and signature at the bottom of each page.**
6. Send this combined file to official email id of concerned faculty.

Note: Student should name his/her write-up file as

PEC151_SecA_RollNo_Name

(e.g. PEC151_SecA_42_Ashish_Agarwal)

A sample write-up file will also be sent to students for reference.

LIST OF EXPERIMENTS

1. **Familiarization of Electronics Measuring Instruments and Components.**
2. **Measurement of Voltage and Frequency using CRO.**
3. **Measurement of Resistance, Capacitance, Voltage and Current using Digital Multimeter.**
4. **Study of V- I characteristics of PN Junction Diode.**
5. **Study of logic gates.**
6. **Study of V –I characteristics of PN Junction Diode and determine the static and dynamic resistance from the characteristic curve.**
7. **Study of V - I characteristics of Zener diode and determine its voltage regulation.**
8. **Study of a Half Wave Rectifier Circuit with and without Capacitor Filter.**
9. **Study of a Full Wave Rectifier Circuit with and without Capacitor Filter.**
10. **Study of input and output characteristics of common base (CB) transistor.**

INNOVATIVE EXPERIMENTS

1. **Study of summer using Op-Amp IC.**
2. **Study of subtractor using Op-Amp IC.**
3. **Study of half adder using logic gates.**
4. **As suggested by the concerned Faculty/Lab Incharge.**

Evaluation Scheme