Annexure 2

APPLIED PHYSICS LAB- I

Course Code: PHY-121 **Credit Units: 01**

Total hours: 20

Course Objective:

To provide detailed introduction to the principal class of semiconductor andelectronics components

Course Contents:

Time allocated for experiments No.1-10 is 2 hours each.

1. To determine the forbidden band gap energy of a semiconductor.
2. To determine the frequency of AC mains using sonometer.
3. To determine the value of specific charge (ratio of e/m) of an electron by Thomson method.
4. To study the common base characteristics of a PNP junction transistor, by drawinginput characteristic curves andoutput characteristic curves.
5. To study the common emitter characteristics of a NPN junction transistor, by drawinginput characteristic curves andoutput characteristic curves.
6. To study a series /parallel resonant LCR circuit, its resonate frequency and quality factor
7. To study the voltage regulation characteristics of a zener diode.
8. To study the characteristics of a solar cell.
9. To draw V – I characteristics of a photocell and to verify the inverse square law of radiation.
10. To plot graph showing the variation of magnetic field with distance along the axis of a circular coil carrying current, and hence estimate the radius of the coil.
11. To draw the V-I characteristics of a forward and reverse bias PN junction diode.

Course Outcomes:

After completion of course student will develop: Practical understanding andapplications of fundamental concept of classical and modern Physics.

Examination Scheme:

Components	Att.	CT	S/V/Q/HA	EE
Weightage (%)	5	15	10	70

CT: Class Test, HA: Home Assignment, S/V/Q: Seminar/Viva/Quiz, EE: End Semester Examination; Att: Attendance

Text & References:

- Physics Practical, Gupta and Kumar