Physics Lab-VI

Course Code: BEB652 Contact Hours: 15

Credit: 01 (L-0, T-0, P-2)

Department of Education

MM: 25

Course Outline:

Each student has to perform eight experiments from following;

- 1. Study The characteristics (FLT)
- 2. Study The Characteristics Metal Oxide Semiconductor Field Effect Transistor (MOSFET)
- 3. To design an Inverting Amplifier of given gain using Op-amp 741 and to study its Frequency Response.
- 4. To design a Non-Inverting Amplifier of given gain using Op-amp 741 and to study its Frequency Response.
- 5. To design and study a precision Differential Amplifier of given I/O specification using Op-amp 741. 6. To design an A stable Multivibrator of given specifications using 555 Timer.
- 7. To determine the coefficient of thermal conductivity of a bad conductor by lee and charlton_s disc method. 8. To determine the value of e/m of an electron by helical (long solenoid) method.
- 9. To determine the value of Boltzmann Constant by studying Forward Characteristics of a Diode.
- 10. To study Hall effect and to calculate (i) Hall coefficient and (ii) Concentration of charge carrier
- 11. To determine the half-life period of given radioactive source using a G. M. counter.

Suggested Reading:

- ☐ Geeta Sanon, BSc Practical Physics, 1stEdn. (2007), R. Chand & Co.
- B. L. Worsnop and H. T. Flint, Advanced Practical Physics, Asia Publishing House, New Delhi
- ☐ Indu Prakash and Ramakrishna, A Text Book of Practical Physics, Kitab Mahal, New Delhi.
- D. P. Khandelwal. A Laboratory Manual of Physics for undergraduate Classes, Vani Publication House,

New Delhi

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