

The Islamia University of Bahawalpur

BS/ M.Sc.

Physics Lab-VI (Phy-01604/21205)

Maximum Marks: 15

Semester-VI/II (Session: Spr 20??-20??/20??-20??)

Mid Term

Time Allowed: 40 min

Name: _____

Roll No. _____

Course Instructor: **Dr. ????????????**

Note: Give short answers to any Six of the following questions. (Each Question carries 2.5 marks.)

- i. Write down the steps to measure the Linear Absorption Coefficient of γ -particles through Pb-sheets.
- ii. Draw the experimental setup of Millikan's oil drop method.
- iii. Draw and label the characteristic curve of Geiger-Muller counter.
- iv. How does an electron gun work? Define the term thermionic emission.
- v. How do we make the electronic path in fine beam tube visible?
- vi. What are Helmholtz coils? Write their importance.
- vii. Differentiate between ionization potential and excitation potential.
- viii. Write down some functional elements in solar cells and Define dark current.
- ix. What do you know about a transmitter and a receiver?
- x. Draw the experimental setup of Frank-Hertz experiment.
- xi. Define the terms; Drag Force, Terminal velocity & Viscosity.
- xii. Define Photo-electrons and draw the schematic diagram of Photo-diode.