MCC/21/M.Sc./Sem.-II /PHS/1

PG CBCS M.Sc. Semester-II Examination, 2022 PHYSICS PAPER: PHS 296

(Advance Practical)

Time: 3 Hours

Full Marks: 50

(Experiment: 35, Viva Voce: 10, Note Book: 5) Everyone will do one experiment amongst the following. The marks distribution will be as follows: Theory with working formula (5), measurements and data tabulation (12), Graph plot and Calculation (10), error analysis (3), result and discussion (5).

1. Determination of Plank's constant using photo electric effect of four different wavelength of light.

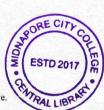
2. Measure the Hall coefficient of a given sample and calculation of its carrier concentration.

3. Study the following characteristics of given diodes

- (i) LED Voltage vs Current
- (ii) LED Voltage vs Lux
- LED Power vs Lux (iii)
- 4. Determine the specific electronic charge using magnetron valve.
- 5. Verify the existence of discrete atomic energy levels of Argon atom and determine the minimum excitation energy of argon.

6. Determine the LDR conductivity with the variation of LED input power.





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