

Total Pages - 03/PG/3S/PHS/396A/20

2020

M.Sc.

3rd Semester Examination

PHYSICS

Paper-PHS 396A

Full Marks: 50

Time: 3 Hours

The Figures in the right hand margin

Indicate full marks.

Candidate are required to give their

Answers in their own words as far as

Practicable.

Illustrate the answers wherever

Necessary.

Solid state Physics (Practical)

Marks Distribution:

Experiment: 50

1) Determination of Lande's g-factor for the given sample using electron spin resonance spectrometer.

- a) Theory (15)
- b) Experimental Procedure (30)
- c) Discussion (5)

2) Study of Characteristics of the solar cell.

- a) Theory (15)
- b) Experimental Procedure (30)
- c) Discussion (5)

3) Study of magneto-resistance of the given sample.

- a) Theory (15)
- b) Experimental Procedure (30)
- c) Discussion (5)

4) Measurement of magnetic susceptibility and Bohr Magneton number of given sample by Gouy's method.

- a) Theory (15)
- b) Experimental Procedure (30)
- c) Discussion (5)

5) Study of UJT and SCR Characteristics.

SCR

- a) Theory (7)
- b) Experimental Procedure (15)
- c) Discussion (3)

UJT

- a) Theory (7)

- b) Experimental Procedure (15)
- c) Discussion (3)