

SAGAR MAHAVIDYALAYA

INTERNAL EVALUATION-2020

B.SC(General):semester-4

Subject-PHSG

Paper-CC-4-TH

Time:1pm-3:30pm

full marks:35

MODULE-I

- **Attempt four questions from group A & five from group B.**

Group A

5×4=20

1. Define Interference of light & the conditions for the formation of it.
2. Deduce Analytical explanation of interference of light.
3. Define fringes of equal thickness & fringes of equal inclination.
4. Compare the Zone plate & Convex lens in case of diffraction of light.
5. State Huygen's principle and prove law of reflection.
6. Deduce Snell's law of refraction using Huygen's principle.

Group-B

1×5=5

1. What is coherent source?
2. Write down the condition for constructive interference.
3. Write down the condition for destructive interference.
4. Write down the interference fringe width for Young's experiment.
5. What is diffraction of light?
6. Write down the relation between path difference & phase difference.
7. What is refractive index.

MODULE-II

(Internal Assessment)

- **Attempt any two questions from the followings**

5×2=10

1. Derive the fringe width value formed in Young's double slit experiment.
2. Explain the Stoke's treatment briefly.
3. Calculate the intensity value in case of Fraunhofer single slit diffraction.