

**B.SC. GENERAL 2<sup>ND</sup> SEMESTER INTERNAL EXAMINATION 2022**  
**KANDI RAJ COLLEGE**  
**DEPARTMENT OF PHYSICS**

**SEMESTER: 2<sup>ND</sup>**  
**PAPER CODE: PHY-GCC-T-02**

**STREAM: GENERAL (PROGRAM)**  
**Paper: WAVES AND OPTICS**

**Full marks: 10**

**Answer Any Five questions of the following:**

**2×5=10**

1. Define longitudinal and transverse waves.
2. What is Superposition Principle? Obtain the equation of a plane progressive wave.
3. Define particle velocity, phase velocity and group velocity.
4. State Huygens principle.
5. Obtain the expression of intensity in case of Young's double slit experiment.
6. What are the conditions for single slit diffraction pattern?
7. What is Newton's ring? Why the central spot is dark in Newton's ring as seen by reflected light?