

KANDI RAJ COLLEGE
U.G. 2nd Semester Examination 2021
GENERAL ELECTIVE
Paper: PHY-H-GE-T-02
Waves and Optics
Time: 01 hour

Answer any 10 questions.

10×2=20

1. What is superposition principle in case of oscillation?
2. What is phase velocity and group velocity? Obtain their relation.
3. A sodium atom radiates 4×10^{-12} sec. What is the coherence length of light from a sodium lamp?
4. Define Diffraction of light. What is half period zone?
5. What is resolving power of a grating?
6. What is Lissajous figure? What are their uses?
7. State Huygen's principle of wave theory.
8. What are Newton's rings? Why the rings are circular in nature?
9. What are the important practical applications of Michelson's interferometer?
10. Show that energy density in a stationary wave is twice that of a progressive wave?
11. Does Energy is conserved in case of Interference?