

B.SC. HONOURS 2ND SEMESTER PRACTICAL EXAMINATION 2021
KANDI RAJ COLLEGE
DEPARTMENT OF PHYSICS

SEMESTER: 2ND

STREAM: HGE

Paper : WAVES AND OPTICS

PAPER CODE: PHY-HGE-P-02

Full marks: 10

Answer any FIVE questions of the following:

5×2=10

1. Describe an experiment to study the motion of coupled oscillators.
2. Describe Melde's method to determine the frequency of an electrically maintained tuning fork.
3. What are Lissajous figures? Describe a technique to study them in the laboratory.
4. How is Schuster's focusing achieved in a spectrometer? How can the angle of a prism be determined with a spectrometer?
5. Describe an experiment to determine the coefficient of viscosity of water by capillary flow method?
6. Describe an experiment to determine the refractive index of the material of a prism using sodium light.
7. How can the Cauchy constants be determined experimentally?
8. How can the resolving power of a prism be determined experimentally?
9. Describe an experiment to determine the wavelength of sodium light using Fresnel Biprism.
10. How can the resolving power of a plane diffraction grating be determined experimentally?