

RAIGANJ SURENDRANATH MAHAVIDYALAYA

Department of Physics

B.SC Physics Honours Examination-2022

Paper X (Optics Practical)

(NEW and OLD Syllabus)

Time- 3.0 hrs

Full Marks-65

Answer any 13 questions (13*5=65)

1. What is Newton's Ring?
2. Write down the working formula for Newton's ring.
3. How does you measure the radius of Newton ring?
4. What is Schuster's method?
5. What do you mean by the calibration curve of a spectrometer?
6. Why do you level the spectrometer?
7. Draw the nature of $D-\lambda$ curve.
8. What is dispersion?
9. What do you mean by the dispersive power of a material?
10. What are normal and anomalous dispersion?
11. Write down the working formula for $\mu-\lambda$ curve.
12. Draw the nature of $\mu-\lambda$ curve.
13. Write the Cauchy's formula.
14. What do understand by diffraction of light?
15. How does diffraction differ from interference?
16. Distinguish between Fresnel and Fraunhofer class of diffraction.
17. What will happen if the width of the slit is increased?
18. What happens if the incident light is white in double slits experiments?