

Optics
12th Standard
Physics

Exam Time : 01:30:00 Hrs

Total Marks : 60
25 x 2 = 50

- 1) What is optical path? Obtain the equation for optical path of a medium of thickness d and refractive index n .
- 2) State the laws of refraction.
- 3) What is angle of deviation due to refraction?
- 4) What is principle of reversibility?
- 5) What is relative refractive index?
- 6) Obtain the equation for apparent depth
- 7) Why do stars twinkle?
- 8) What is critical angle and total internal reflection?
- 9) Obtain the equation-for critical angle.
- 10) Explain the reason for glittering of diamond.
- 11) What are mirage and looming?
- 12) Write a short notes on the prisms making use of total internal reflection.
- 13) What is Snell's window?
- 14) Write a note on optical fibre.
- 15) State the laws of reflection
- 16) What is angle of deviation due to reflection?
- 17) Give the characteristics of image formed by a plane mirror.
- 18) Derive the relation between f and R for a spherical mirror.
- 19) What are the Cartesian sign conventions for a spherical mirror?
- 20) Explain the working of an endoscope.
- 21) What are primary focus and secondary focus of convex lens?
- 22) What are the sign conventions followed for lenses?
- 23) Arrive at lens equation from lens maker's formula.
- 24) Obtain the equation for lateral magnification for thin lens.
- 25) What is power of a lens?
