

Date: 25/04/2025

SUMMER VACATION WORKSHEET

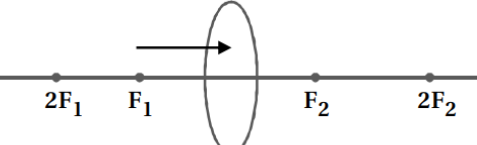
Class: **X**

Sub: **PHYSICS**

Section A

- Write the answer of the following questions. [Each carries 1 Mark] [5]

1. What is the speed of light in water ? For water $n = \frac{4}{3}$
2. Why does the refraction light ray does not takes place from the surface separating the two different medium having same refractive index ?
3. What is lateral inversion of image ?
4. State the formula for magnification of a spherical mirror.

5.  Complete the diagram by drawing the refracted rays.

Section B

- Write the answer of the following questions. [Each carries 2 Marks] [8]

6. The refractive index of glass with respect to air is $\frac{3}{2}$ and the refractive index of water with respect to air is $\frac{4}{3}$. Then (a) what will be the refractive index of glass respect to water and (b) what will be the refractive index of water with respect to glass ?
7. In which direction will light bend when travelling from an optically rarer medium to an optically denser medium ?
8. Write the uses of concave mirror.
9. Mention properties of an image formed by a plane mirror.

Section C

- Write the answer of the following questions. [Each carries 3 Marks] [9]

10. Draw the diagram of Image formation by a concave mirror when the object is placed between Centre of Curvature and Focus of the concave mirror. Also state the position, size and nature of the image formed.
11. Write the difference between real image and virtual image.
12. Write the difference between reflection and refraction of light.

Section D

- Write the answer of the following questions. [Each carries 4 Marks] [4]

13. Draw ray diagrams for image formation by a concave mirror for different position of the object and write the type and dimension of each.