

PRACTICE TEST PAPER: CLASS-X

LIGHT

1. What is meant by 'rectilinear propagation' of light?
2. Which type of mirror does produce only virtual image?
3. Which mirror has a real focus?
4. Why do we prefer a convex mirror as a rear view mirror in vehicle? Give reason.
5. What is understood by lateral inversion of an image?
6. An object, 4.0 cm in size is placed at 25cm in front of a concave mirror of focal length 15cm. At what distance from the mirror should a screen be placed in order to obtain a sharp image? Find the nature and the size of the mirror.
7. A certain produces an image 3 times size of the object (i) identify the type of mirror (ii) possibilities regarding the nature of the image (iii) find the object and image distances in all possible cases if the radius of curvature of the mirror is 60cm.
8. A ray of light travelling in air enters obliquely into water. Does the light ray bend towards the normal or away from the normal? Why?
9. Define one dioptre of power of a lens.
10. Find the power of a concave lens of focal length 2m.
11. What is mirror formula? It explains which type of relationship?
12. What is magnification? Is it representing any ratio?
13. A 2cm tall object is placed perpendicular to the principal axis of a convex lens of focal length 10cm. The distance of object from the lens is 15cm. Find the nature, position and size of the image. Also find its magnification.
14. An object 5.0cm in length is placed at a distance of 20cm in front of a convex mirror of radius of curvature 30cm. Find the position, nature and size of the image.
15. Find the focal length of a lens of a power -2.0 D. What type of lens is this?