

PRACTICE TEST PAPER: CLASS-X

LIGHT - 10

1. Differentiate between real and virtual image?
2. What is the value of refractive index of air?
3. What is the SI unit of power of lens?
4. What is the cause of refraction of light?
5. Does the emergent ray remain parallel to the incident ray after refraction in a glass slab?
6. The refractive index of dense flint glass is 1.65 and for alcohol it is 1.36, with respect to air. What is the refractive index of dense flint glass with respect to alcohol?
7. Magnification produced by a concave mirror of a body 4.0 cm in size is 0.16. What is the size of image?
8. A convex mirror used on an automobile has a focal length of 3.00m. If a vehicle behind is at a distance of 5.00m, Find the location of the image?
9. At what distance should an object be placed from a convex lens of focal length 18 cm to obtain an image at 24 cm from it on the other side. What will be the magnification in this case?
10. An object 30 cm tall placed on principal axis of a convex lens. It's 20 cm tall image is formed on screen placed at the distance of 10 cm from the lens. Calculate the focal length of the lens?
11. An object 2.0 cm tall placed 20.0 cm in front of a concave mirror of focal length 10.0 cm, find the distance from mirror at which a screen should be placed to obtain sharp image. What will be the size and nature of the image?

12. A 5.0 cm tall object placed perpendicular to the principal axis of a convex lens of focal length 20 cm. the distance of the object from lens is 30 cm. Find position n size nature of image?
13. The radius of curvature of a convex mirror on a moving vehicle is 2.0 m. A truck is coming behind it at a constant distance 3.5 m calculate position, size and nature of the image so formed?
14. An object of 5.0 cm tall is placed at a distance of 20.0 cm in front of a convex mirror of radius of curvature 30 cm. Find the position of the image, its nature and size?
15. What is the need for sign convention? write them.

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