

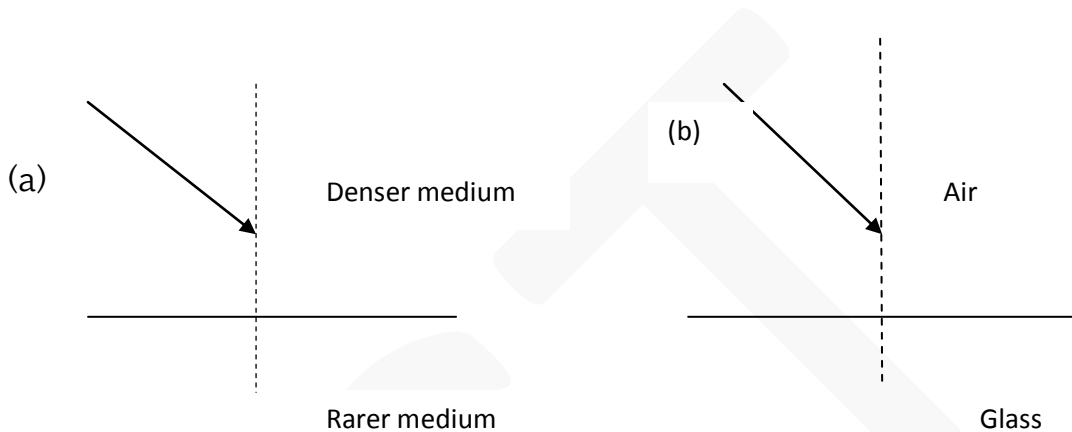
## Class 8 light and vision: Reflection and refraction CBSE Test Paper-01

Q.1. Define refraction of light.

Q.2. What is the cause of refraction of light?

Q.3. Define dispersion of light. Name the colour that is least deviated.

Q.4. See the picture given below and draw the path of refracted ray.



Q.5. Give any two examples of refraction of light, which we observe in everyday life.

Q.6. What would be the speed of light in water if its refractive index is  $\frac{4}{3}$ ? Given speed of light is 3 kilometers per second.

Q.7. A coin, kept in a cup of water appears 'raised up'. Why?

Q.8. What is meant by optical density? Why does light bend when it travels through two optically different mediums?

Q.9. When and how is rainbow formed?

Q.10. What are the rules for refraction?

Q.11. A magnifying glass produces a hole on the black paper when sunlight is focused on it. Why?

Q.12. If the refractive index of the medium is high, will the bending of the light be more or less?

Q.13. Distinguish between a convex and a concave lens.

Q.14. Why does light split into several colours as it passes through the prism?

Q.15. Define:- (a) Focal length (b) principal axis (c) radii of curvature with the help of a diagram.

Q.16. What will happen if you hold a torch vertically above the water surface, so that the ray of light is perpendicular to the water surface? What will happen to the speed of light as it travels from air to water?

Q.17. Draw a diagram to show the path of light through a rectangular glass slab.

Q.18. The speed of light in water is  $225,000\text{km/s}$ . Calculate the refractive index of water. Given that speed of light in air is  $300,000\text{km/s}$ .

Q.19. An object is placed at the following distances from a convex lens of focal length  $10\text{cm}$ -----

(a)  $8\text{cm}$  (b)  $15\text{cm}$  (c)  $20\text{cm}$  (d)  $25\text{cm}$  .

Which position of the object will produce;--

(i) a diminished real image (ii) a magnified real image

(iii) a magnified virtual image (iv) an image of the same size as the object.

Q.20. State some of the application of lenses.

Q.21. What is a lens? What are its different types?

Q.22. Why does a pond appear less deep than it actually is? Explain with the help of a diagram.

Q.23. Define refractive index of a medium. How does the bending of the ray of light depend upon refractive index of the medium?

Q.24. Who was the first to obtain the spectrum of sunlight?

Q.25. Write the rules for the formation of images by lenses.