

Class 10 CBSE Reflection and refraction extra questions

Q1. What is the difference between reflection and refraction?

Q2. Refraction is caused by

- a. different wave speeds.
- b. more than one reflection.
- c. displaced images.
- d. bending.

Q3. What will happen to ray of light when it travels from rarer medium to a denser medium?

Q4. What is absolute refractive index ?

Q5. If refractive index of glass is 1.65, What is the speed of light in glass. ?

Q6. The magnification M for a mirror is given by ?

Q7. Distinguish between real and virtual images?

Q8. What is the angle of reflection if a ray falls normally on a plane mirror?

Q9. What is the focal length of a plane mirror?

Q10. Why a mirror does has one principal focus while a lens has two principal foci?

Q11. Focal length of the lens in a photographic camera is 5cm. What is the power and nature of the lens?

Q12. Define linear magnification. Does it have any unit?

Q13. What does negative sign in the value of magnification of a mirror indicate?

Q14. Name the point inside the lens through which a ray of light goes undeviated?

Q15. Which of the two has a great power? A lens of short focal length or a lens of large focal length?

Q16. Define one diopter?

Q17. A One Rupee coin lies in the bottom of a small container filled with water. As you look down on the coin, compared to its actual depth, it looks

- a. closer.
- b. farther away.
- c. at the same depth.

Q18. Two medium with refractive index 1.41 and 1.56 are given. In which case

- (a) Bending of light is more
- (b) speed of light is more

Q19 Write three uses of concave mirror.

Q20. An object 1cm high produces a real image 1.5 cm high, when placed at a distance of 15 cm from concave mirror. Calculate the position of the image.

Q21. Find the power of a concave lens of focal length 2.5 m.

Q22. A man standing in front of special mirror finds his image having a small face, big tummy and legs of normal size .what are the shapes three parts of mirror?

Q23. Two lenses have power of (i) + 2.5D (ii) - 5D. What is the nature and focal length of each lens?

Q24. Where is the image formed in a convex mirror, when the object is anywhere in front of it?

Q25. A ray of light is incident on a concave mirror along its principal axis. What will be the angle of reflection?

Q26. Name the lens which always gives an erect and diminished image?

Q27. Which mirror is used as rear view mirror in vehicles and why ?

Q28. Define refractive index in terms of a speed of light in two media. What is the unit of refractive index?

Q29. A ray of light strikes the mirror at 14° , what is the angle of reflection?

Q30. What is refractive index of air? Why the refractive index of other medium is taken with respect to air?

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