



MCQs

1. The line perpendicular to the reflective surface is the _____.

- a. normal
- b. line of refraction
- c. line of incidence
- d. line of reflection

2. Your image in a bathroom mirror results from _____.

- a. diffuse reflection
- b. specular refraction
- c. specular reflection
- d. diffuse refraction

3. How does light normally travel?

- a. in concentric circles
- b. in a straight line
- c. always toward a dark area
- d. in a curved line

4. What is f if you have an object 2.0 m from the concave mirror, and the image is 4.0 m from the mirror?

- a. 2.0m
- b. 0.67 m
- c. 1.3 m
- d. 4.0 m

5. In a concave mirror, an object placed _____ will result in a virtual image.

- a. twice the distance of the focal point
- b. between the focal point and mirror
- c. between the focal point and twice the distance of the focal point
- d. past the focal point

6. Which type of mirror produces an image that is always erect, always the same height as the object, and always virtual?

- a. convex
- b. concave
- c. plane
- d. none of these

7. _____ is located behind a convex mirror.

- a. The focal point
- b. A ray
- c. A real image
- d. The object



8. The image from a convex mirror will _____.
- always be real
 - always be projected
 - always be virtual
 - never be virtual
9. Light travels fastest through which of the following materials?
- diamond
 - water
 - glass
 - air
10. The nature of image formed in concave lens is
- real, inverted and same size
 - virtual, erect and same size
 - virtual, erect, always diminished
 - virtual, erect, always magnified

SECTION B 2X5=10 MARKS

What are the characteristics of the image formed on a plane mirror?

: What are the uses of convex mirror?

List the uses of concave mirror?

Under what circumstances will there be no refraction of light when it enters from medium to another?



Why does a coin appear to be raised when the container is slowly filled with water?

SECTION C NUMERICALS 5X3=15 MARKS

Q12(NCERT): A concave mirror produces three times magnified real image of an object placed at 10 cm in front of it. Where is the image located?

Q10: Water has refractive index = 1.33 and air has refractive index = 1.00. Find the critical angle for a water-air boundary.

Q 9: Using mirror formula, compute the position of the object placed in front of a concave mirror of focal length f so that the image formed is of same size of the object.

Q7: What is the focal length of a lens that produces a real image three times as large as the object if the distance between image and object is 1.0m?

Q6: A converging lens has a focal length of 15cm. An object is placed 60cm from the lens. Determine the image.