

Chapter - 10 | Light: Mirrors and Lenses

QUIZ-01

1. What kind of image is formed by a convex mirror, regardless of the object's distance?
 A. Erect and enlarged
 B. Inverted and diminished
 C. Erect and diminished
 D. Inverted and same size (C)

Explanation: A convex mirror always forms an image that is erect and smaller than the actual object.

2. What happens to the image in a concave mirror when the object is moved far from it?
 A. The image becomes erect and enlarged
 B. The image becomes inverted and smaller
 C. The image becomes erect and smaller
 D. The image disappears (B)

Explanation: When an object is placed far from a concave mirror, the image becomes inverted and diminished.

3. What kind of mirror is used in vehicle side-view mirrors?
 A. Plane mirror
 B. Concave mirror
 C. Convex mirror
 D. Two-way mirror (C)

Explanation: Convex mirrors are used in side-view mirrors as they provide a wider field of view and always show an erect, diminished image.

4. Which of the following lenses converges light rays?
 A. Convex lens
 B. Concave lens
 C. Plane glass sheet
 D. None of the above (A)

Explanation: A convex lens converges light rays falling on it, focusing them to a point.

5. What is the law of reflection related to the angle of incidence and angle of reflection?
 A. Angle of incidence is double the angle of reflection
 B. Angle of incidence is zero
 C. Angle of incidence equals angle of reflection
 D. Angle of reflection is always 90 degrees (C)

Explanation: According to the law of reflection, the angle of incidence is always equal to the angle of reflection.

6. What kind of image is formed by a concave lens?
 A. Erect and enlarged
 B. Inverted and diminished
 C. Erect and diminished
 D. Inverted and same size (C)

Explanation: A concave lens always forms an erect and diminished image, regardless of the object distance.

7. What happens when parallel light rays fall on a concave mirror?
 A. They diverge
 B. They remain parallel
 C. They converge
 D. They disappear (C)

Explanation: A concave mirror causes parallel rays to converge at a point.

8. What kind of lens is a magnifying glass?
 A. Plane lens
 B. Concave lens
 C. Convex lens
 D. None of the above (C)

Explanation: A magnifying glass is a convex lens that enlarges the appearance of objects.

9. Which mirror is used in solar concentrators to focus sunlight?
 A. Plane mirror
 B. Concave mirror
 C. Convex mirror
 D. None (B)

Explanation: Concave mirrors are used in solar concentrators to focus sunlight on a point and generate heat.

10. What do multiple parallel rays do when they strike a convex mirror?
 A. They converge
 B. They remain parallel
 C. They diverge
 D. They refract (C)

Explanation: A convex mirror causes the parallel rays to diverge.