

Mirrors

A. Choose the correct answer:

1. Which of the following is a characteristic of a plane mirror?

- A) It forms a virtual and erect image
- B) It always forms a real image
- C) The image formed is inverted
- D) It magnifies the object

2. What happens when light falls perpendicularly on a plane mirror?

- A) It gets absorbed
- B) It gets refracted
- C) It gets reflected back in the same direction
- D) It gets dispersed

3. A concave mirror can be used as a _____.

- A) Rearview mirror in vehicles
- B) Shaving or makeup mirror
- C) Security mirror in shops
- D) Window glass

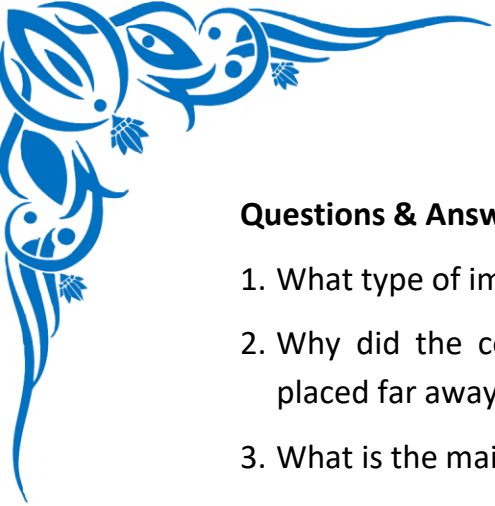
B. Fill in the Blanks:

1. A plane mirror forms a _____ and _____ image of an object.
2. The focal point of a concave mirror is located on the _____ side of the mirror.
3. A convex mirror always forms a _____ and _____ image, regardless of object position.

C. Case Study:

A scientist, Dr. Kumar, conducted an experiment using three different types of mirrors: plane, concave, and convex. He placed an object in front of each mirror and observed the following:

- The plane mirror formed an image of the same size as the object, appearing behind the mirror.
- The concave mirror, when the object was placed close, formed a magnified and upright image, but when the object was far, the image became inverted.
- The convex mirror always formed a small, upright image.



Questions & Answers:

1. What type of image does a plane mirror always form?
2. Why did the concave mirror form an inverted image when the object was placed far away?
3. What is the main use of a convex mirror based on the given experiment?
4. How does the placement of an object affect the image in a concave mirror?

D. Short Answer Questions:

1. What are the main types of mirrors used in daily life?
2. Why are convex mirrors used in vehicles?
3. How does a concave mirror help in focusing light?

E. Long Answer Questions:

1. Explain the differences between plane, concave, and convex mirrors with suitable diagrams.
2. Describe the real-life applications of concave and convex mirrors in various fields.
3. How does the law of reflection apply to different types of mirrors?