

Reflection of Light

Chapter 16: Reflection of Light · Topic 1

Key Concept

The law of reflection states that the angle of incidence equals the angle of reflection, both measured from the normal (perpendicular line).

A plane mirror produces a virtual, upright image that is the same size as the object but laterally inverted (left-right reversed).

Regular reflection occurs on smooth surfaces (like mirrors), producing clear images, while diffuse reflection occurs on rough surfaces, scattering light.

Understanding reflection helps explain how mirrors, periscopes, and other optical devices work in everyday applications.

Quick Revision Notes

- Law of reflection: angle of incidence = angle of reflection.
- Both measured from the normal.
- Plane mirror: virtual, upright, same-size image.
- Image is laterally inverted (left-right reversed).
- Regular reflection: smooth surfaces, clear images.
- Diffuse reflection: rough surfaces, scattered light.
- This explains mirrors, periscopes.
- Understanding aids optical device design.

Practice Questions

- 1 Verify the law of reflection using a mirror and light source.
- 2 Discuss the properties of a plane mirror's image.
- 3 Compare regular and diffuse reflection.
- 4 Draw a ray diagram showing reflection.
- 5 Research how a periscope works.
- 6 Explain lateral inversion with an example.