

Chapter 18 - Reflection of light in Spherical Mirrors.

① The Image are formed not only on plane mirrors but also on smooth, curved surface.

- (a) spherical (b) concave (c) convex (d) plane.

② _____ mirror are mirrors in which the reflecting surface is part of the sphere.

- (a) plane (b) concave (c) spherical (d) convex

→ (c) Spherical.

③ _____ mirror is mirror in which the reflecting surface is curved inward.

- ~~(a) concave~~

④ _____ mirror is mirror in which reflecting surfaces are curved outward.

→ convex.

⑤ Distance from the centre of curvature to the reflecting surface of mirror is the _____

- (a) Aperture (b) Radius of curvature. (c) pole (d) centre of curvature.

→ (b) radius of curvature.

⑥ _____ of a mirror is the midpoint of the reflecting surface of the mirror.

- (a) pole (b) Aperture (c) principle axis

- (d) Radius

→ (a) pole.

⑦ Angle of incidence & angle of reflection are equal in spherical mirrors.

⑧ a) plan b) convex c) concave d) spherical.

⑨ the focal length (F) of a spherical mirror is half the radius of curvature of the mirror.

→ ~~⑩~~ radius of curvature.

⑨ write down principle focus of a concave mirror.

→ Rays of light incident on a concave mirror, parallel to the principal axis, pass through a fixed point on the principal axis after reflection. This point is the principal focus (F) of the concave mirror.

⑩ write down principal focus of a convex mirror.

→ Rays of light incident on a convex mirror parallel to the principal axis appear to come from a fixed point on the other side of the mirror. This point is principal focus of the convex mirror.

⑪ what is magnification.

→ while calculating the magnification, the measurement taken upward from the principal axis is considered positive & the measurements downward are considered negative. Magnification is a physical quantity having no unit.

13) write down uses of concave mirror.

-
- (i) shaving mirror
 - (ii) make up mirror
 - (iii) Head mirror used by doctors
 - (iv) In film projectors.

14) write down uses of convex mirror.

- (i) used as reflector in street lamp.
- (ii) used as rear view mirror by drivers for viewing vehicles from behind. these mirrors have a wide field of view compared to that of plane mirrors. Hence they can help in avoiding accidents to certain extent.

(iii) Big convex mirror help in viewing vehicles coming beyond curves, thus minimizing accidents.

15) draw ray diagram by distinguishing the principle foci of concave & convex mirror.

