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SUBJECT:- PHYSICS

CLASS:- XTH

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SUBJECT TEACHER:- MR. NEEL NIRANJAN

CHAPTER 4. (LIGHT)

1. The outer surface of a hollow sphere of aluminium of radius 50 cm is to be used as a mirror. What will be the focal length of this mirror? Which type of spherical mirror will it provide?

Answer. $f = R/2 = 25$ cm. It will form a convex mirror

2. Between which two points related to a concave mirror should an object be placed to obtain on a screen an image twice the size of the object?

Answer. Real Image: Between F and C.

3. State the two laws of reflection of light.

Answer. Laws of reflection of light are:

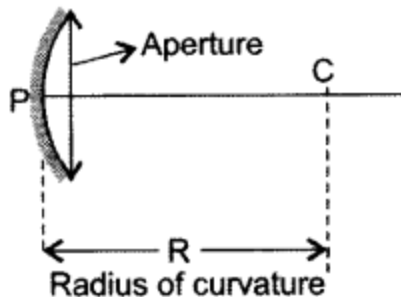
1. The angle of incidence is equal to the angle of reflection.
2. The incident ray, the normal to the reflecting surface at the point of incidence and reflected ray from that point, all lies in the same plane.

4. Define and show on a diagram, the following terms relating to a concave mirror:

(i) Aperture

(ii) Radius of curvature

Answer. (i) The diameter of the reflecting surface of the mirror is called aperture.



(ii) The radius of the sphere of which the reflecting surface of the spherical mirror forms a part is called the radius of curvature of the mirror.