

BCM SCHOOL CHD ROAD
A SENIOR SECONDARY SCHOOL OF BCM FOUNDATION AFFILIATED TO CBSE, NEW DELHI
ASSIGNMENT- CHAPTER-10 (LIGHT)

- 1- Draw a ray diagram for concave and convex mirror when is a) at infinity b) b/w P and F c) In front of convex mirror
- 2- Which mirror is used as side view mirror and show ray diagram for it and what will be its magnification
- 3- If a man's face is 30 cm in front of concave shaving mirror producing erect image 1.5 times the size of face, calculate its focal length
- 4- An object is placed at a distance of 35 cm from a concave mirror whose focal length is 30 cm. Calculate its focal length.
- 5- An object is kept in front of a concave mirror of focal length 15 cm. The image is 2 times the size of the object. Calculate two possible distances of the object from the mirror
- 6- a) Write any four properties of plane mirror.
b) Draw well - labeled diagram for rectangular glass slab when light falls normally on a slab.
- 7) Define the following terms:
a) Pole of a mirror b) Center of curvature c) Principal axis d) Aperture
b) State the laws of reflection for spherical mirrors.
c) Why does a convex mirror always form a virtual image, regardless of the object's position?
- 8) a) An object is placed at the center of curvature (C) of a concave mirror. Describe the nature, position, and size of the image formed.
b) How will the image change if the object is moved closer to the mirror from C to F (focus)?
- 9- An object is placed 20 cm in front of a concave mirror with a focal length of 15 cm. Calculate the image distance and magnification.
- 10) A convex mirror with a radius of curvature of 24 cm forms an image of an object placed 12 cm in front of it. Find the position and nature of the image.
- 11) a) Why are convex mirrors preferred over concave mirrors as rear-view mirrors in vehicles?
b) Give two practical uses of concave mirrors.
- 12) Fill in the blanks with the correct sign convention:
- Object distance for a real object: _____
- Image distance for a virtual image: _____
- Focal length of a convex mirror: _____

