



SACRED HEART SCHOOL

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ASSIGNMENT (2020– 2021)

Class -X

Subject – PHYSICS

Assignment questions based upon online class

2. What kind of mirror is used in vehicles to see the traffic following it?
3. If you want to see an enlarged image of your face, state whether you will use a concave or a convex mirror.
4. Mention one main application of convex mirrors.
5. A man standing in front of a special mirror finds his image having a very small head, a fat body and legs of normal size. What are the shapes of the three parts of the mirror? [Ans. Convex, Concave, Plane]
6. An object is placed 20 cm in front of a convex mirror of focal length 10 cm. Find the position and nature of the image.
7. What are the sign conventions for a convex mirror?
8. If the radius of curvature of a convex mirror is 36 cm, what is its focal length? [Ans. 18 cm]
9. Write down the mirror formula for a spherical mirror.
10. What do you mean by the magnification produced by mirrors?
11. What kind of images are formed by a convex mirror?
12. What are the uses of a convex mirror?
13. Why is a convex mirror preferred for its use as a driver's mirror?
14. Write the mirror formula.
15. Show the sign convention for a concave mirror on a diagram.
16. What information does the magnification by a mirror gives about the size and nature of the image.
17. The radius of curvature of a convex mirror used on a moving automobile is 2.0 m. A truck is coming behind it at a constant distance of 3.5 m. calculate.
 - (a) The position and the size of image relative to the size of the truck.
 - (b) What will be the nature of the image? [Ans. Image distance = 0.78 m, M = 0.22, Erect and diminished]
18. An object 5.0 cm in length is placed at a distance of 20 cm in front of a convex mirror of radius of curvature of 30 cm. Find the position of the image, its nature and size. [Ans. l = 2.2 cm high, Erect, virtual, 8.6 cm behind the mirror]

