Reflection of light at curved surfaces

1. Where will the image be formed when we place an object on the principal axis of a concave mirror at a point between focus and centre of curvature?(AS1)

2. State the differences between convex and concave mirrors? (AS1)

3. Distinguish between real and virtual images. (AS1)

4. How do you get a virtual image using a concave mirror? (AS1)

5. What do you know about the terms given below related to spherical mirrors? (AS1)

a) Pole b) Centre of curvature c) Focus
d) Radius of curvature e) Focal length f) Principal axis
g) Object distance h) Image distance i) Magnification

6. Write the rules for sign convention. (AS1)

7. What do you infer from the experiment which you did to measure the object distance and image distance? (AS1)

8. Find the distance of the image when an object is placed on the principal axis at a distance of 10 cm infront of a concave mirror whose radius of curvature is 8 cm. (AS1)

9. The magnification product by a mirror is +1. What does it mean?(AS1)

10. If the spherical mirrors were not known to human beings, guess the consequences.(AS2) Improve your

11.Draw suitable rays by which we can guess the position of image formed by a concave mirror? (AS5)

12. Show the formation of image with a ray diagram when an object is placed on the principal axis of a concave mirror away from the centre of curvature? (AS5)

13. Why do prefer a convex mirror as a rear-view mirror in the vehicles? (AS7)

14.A convex mirror with a radius of curvature of 3 m is used as rear view mirror for a vehicle. If a bus is located at 5 m from this mirror, find the position, nature and size of the image? (AS7)

15. To form the image on the object itself, how should we place the object infront of a concave mirror? Explain with a ray diagram? (AS3)

1. If an object is placed at C on the principal axis in front of a concave mirror, the position of the image is [ ]
a) at infinity b) between F and C c) at C d) beyond C

2. We get a diminished image with a concave mirror when the object is placed [ ]
a) at F b) between the pole and F c) at C d) beyond C

3. We get a virtual image in a concave mirror when the object is placed [ ]
a) at F b) between the pole and F c) at C d) beyond C

4. Which of the following represents Magnification ‘m’
i) v/u ii) -v/u iii) hi / ho iv) ho / hi [ ]
a) (i),(ii) b) (ii),(iii) c) (iii),(iv) d) (iv),(i)

5. Ray which seems to be travelling through the focus of a convex mirror path of the reflected ray of an incident [ ]
a) parallel to the axis b) along the same path in opposite direction
c) through F d) through C

6. Size of image formed by a convex mirror is always [ ]
a) enlarged b) diminished
c) equal to the size of object d) Depends on position of object

7. An object is placed at a certain distance on the principal axis of a concave mirror. The image is formed at a distance of 30 cm from the mirror. Find the object distance if radius of curvature R = 15 cm [ ]
a) 15 cm b) 10 cm c) 30 cm d) 7.5 cm

8. All the distances related to spherical mirrors will be measured from [ ]
a) object to image b) focus of the mirror
c) pole of the mirror d) image to object

9. The minimum distance from real object to a real image in a concave mirror is [ ]
a) 2f b) f c) 0 d) f/2