

O P JINDAL SCHOOL, SAVITRINAGAR

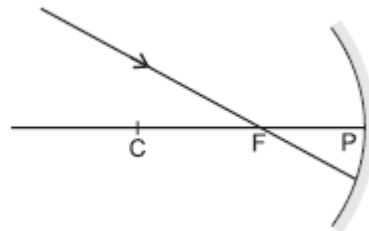
ASSIGNMENT

CLASS X PHYSICS

61 Explain why a ray of light passing through the centre of curvature of a concave mirror, gets reflected along the same path. 1

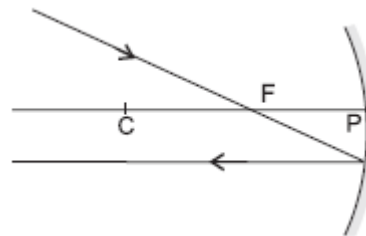
ANS: The ray passing through the centre of curvature incident to the mirror along its normal, so $\angle i = \angle r = 0$. Therefore, the ray retraces its path.

62 Redraw the diagram given below in your answer book and show the direction of the light ray after reflection from the mirror.



1

ANS:



63 A concave mirror forms a sharp image of a distant tree. What name is given to the distance between the concave mirror and 1

screen on which sharp image is formed?

ANS: Focal length.

64 In what condition, the image formed by a concave mirror is virtual? 1

ANS: When the object is placed between the focus and the pole of a concave mirror, a virtual image is obtained.

65 Specified the size of image formed by a concave mirror when $m > 1$. 1

ANS: The image is enlarged.

66 Name the mirror that can be used to check theft in shops. 1

ANS: Convex mirror.

67 What is the position of the object placed on the side of reflecting surface of a concave mirror of focal length 15 cm if the image is formed at the distance of 30 cm from the mirror? 1

ANS: 30 cm

68 Which mirror, concave or convex always converges the light rays? 1

ANS: Concave mirror.

69 When light undergoes refraction at the surface of two media, what happens to the speed of light? 1

ANS: When light enters obliquely from a rarer medium into a denser medium, the speed of light decreases. Also, when light gets into the rarer medium from the denser medium, the speed of light increases.

70 Why does a ray of light bend when it travels from one medium into another?

1

ANS: Due to change in velocity of light rays in the medium and to reduce the time taken to travel the same.