

- Q.** The radius of curvature of the curved surface of a plano-convex lens is 20 cm. If the refractive index of the material of the lens be 1.5, it will
- (a) act as a convex lens only for the objects that lie on its curved side
  - (b) act as a concave lens for the objects that lie on its curved side
  - (c) act as a convex lens irrespective of the side on which the object lies
  - (d) act as a concave lens irrespective of side on which the object lies

**Ans. (c)** Here,  $R = 20\text{cm}$ ,  $\mu = 1.5$ , on substituting the values in  $f = \frac{R}{\mu - 1} = \frac{20}{1.5 - 1} = 40\text{ cm}$  of converging nature as  $f > 0$ . Therefore, lens act as a convex lens irrespective of the side on which the object lies.