**Question 1. A ray of light incident at an angle d on a refracting face of a prism emerges from the other face normally. If the angle of the prism is 5° and the prism is mad? of a material of refractive index 1.5, the angle of incidence is**

(a) 7.5°

(b) 5°

(c) 15°

(d) 2.5°

**Solution:** (a)

Key concept:

In thin prisms, the distance between the refracting surfaces is ineligible and the angle of prism (A) is very small. Since $A = r_1 + r_2$, therefore if A is small then both $r_1$, and $r_2$ are also small, and the same is true for $i_1$ and $i_2$.