

Q1) Differentiate between concavo-convex lens and convexo-concave lens.

Concavo-Convex lens

Convexo-Concave lens

(i) Concavo-Convex lens is thinner at the ~~middle~~ outer boundary while thicker at middle.

(i) Convexo-Concave lens is thinner at middle and thicker at outer boundaries.

(ii) The radius of convex surface is lower than the concave surface.

(ii) The radius of convex surface is higher than concave lens.

Q2) What is the reason behind the sparkling of a diamond?

The refractive index of diamond with respect to air is 2.42 and the critical angle is around 24° .

With proper edges and cuts, large number of rays of light will ~~not~~ enter the face and undergo Total internal reflection.

Rather than refraction, when multiple numbers of rays of light emerges out of the same face, it seems sparkling.

Q3) In which case the converging will be more, Bi-conver or Plano-conver? Justify.

A biconver lens ~~is~~ is made up of two plano conver lenses because of which it has two focuses i.e., F_1 and F_2 whereas as a ~~pl~~ Plano-conver lens has ~~one~~ only one focus ~~because~~ because of which the converging would be more in a biconver lens rather than a plano conver lens.