Wisdom Institution

Activity 06 Convex Lenses MCQ

Answer all the questions below.

01. Convex lens is also known as?
    a) converging lens
    b) diverging lens
    c) conducting lens
    d) dispersing lens

02. The refractive index of a lens material is μ and focal length fd. Due to some chemical changes in the material, its refractive index has increased by 2%. The percentage decrease, in focal length for μ=1.5 will be
    a) 4%
    b) 2%
    c) 6%
    d) 8%

03. Which of the following statements is/are correct?
    a) The lens has two principal foci, but may have one focal length
    b) A single lens can never bring a beam of white light to a point focus
    c) A burning glass brings light rays to same focus as heat radiation
    d) Both (a) and (b) are correct

04. In displacement method we use a lens of focal length f and distance between object and screen is 60 cm. Possible values for focal length is
    a) −15 cm
    b) 30 cm
    c) 12 cm
    d) 20 cm

05. A convex lens, of focal length 30 cm, a concave lens of focal length 120 cm, and a plane mirror are arranged as shown. For an object kept at a distance of 60 cm from the convex lens, the final image, formed by the combination, is a real image, at a distance of :
    a) 60 cm from the convex lens
    b) 60 cm from the concave lens
    c) 70 cm from the convex lens
    d) 70 cm from the concave lens

06. A convex lens is put 10cm from a light source and it makes sharp images on a screen, kept 10 cm from the lens. Now a glass block (refractive index 1.5) of 1.5 cm thickness is placed in contact with the light source. To get the sharp image again, the screen is shifted by a distance d. Then d is:
    a) 1.1 cm away from the lens
    b) 0
    c) 0.55 cm towards the lens
    d) 0.55 cm away from the lens

07. When can a convex lens form a real image?
    a) beyond focus
    b) beyond optical centre
    c) beyond focus and curvature
    d) beyond centre of curvature

08. What will be the image formed by convex lens?
    a) magnifies
    b) sharpens
    c) shrinks
    d) none of these