

Attempt all questions.

MM. 20

2X10

Q.1. Dentists use which mirror to examine teeth?

- (a) Plane mirror (b) Convex mirror
(c) Concave mirror (d) Combination mirror

Q.2. An object of size 2.0 cm is placed perpendicular to the principal axis of a concave mirror. The distance of the object from the mirror equals the radius of curvature. The size of the image will be -

- (a) 0.5 cm (b) 1.0 cm (c) 1.5 cm (d) 2.0 cm

Q.3. The magnification m of an image formed by a spherical mirror is negative. It means, the image is -

- (a) Smaller than the object (b) Erect
(c) Larger than the object (d) Inverted

Q.4. To get an image larger than the object, one can use -

- (a) a convex mirror but not a concave
(b) a concave mirror but not convex mirror
(c) Either a convex mirror or a concave mirror
(d) a plane mirror.

Q.5. Unit of P -

- (a) metre (b) dioptres / metre
(c) Dioptres (d) metre / Dioptres

Q.6. When the eye is focused on an object very far away, the focal length of the eye-lens is -

- (a) maximum (b) minimum
- (c) half its maximum focal length

(d) equal to that of the crystalline lens

Q.7. A thin lens and a spherical mirror have a focal length of $+15$ cm each.

(a) Both are convex (b) Both are concave

(c) Lens is convex (d) Mirror is concave

Q.8. An object is placed before a convex lens.

(a) image is always real (b) image is always virtual

(c) is always erect (d) not sure

Q.9. A lens has a power $+0.5$ D. It is

(a) concave lens, $f = 5$ m (b) convex lens, 5 cm.

(c) convex lens, $f = 2$ m. (d) concave lens, $f = 2$ m.

Q.10. A pin 2 cm long is placed at a distance

of 16 cm from a convex lens. Assuming it to be perpendicular to the

principal axis, find the position, size, and the nature of the image

if the focal length of the lens is 12 cm.

(a) Position = 48 cm, Size = 6 cm, inverted

(b) Position = 25 cm, Size = 2 cm, erect

(c) Position = 50 cm, Size = 5 cm, inverted

(d) Position = 28 cm, Size = 4 cm, erect