1. Suppose you are standing 1 m in front of a plane mirror. What should be the minimum vertical size of the mirror so that you can see your full image in it?

0.50 m

2 m

half of your height.

twice your height.

Answer (c).

2. A spherical air bubble is embedded in a piece of glass. For a ray of light passing through the bubble, it behaves like a :

converging lens

diverging lens

plano-converging lens

plano-diverging lens

Answer (b).

3. Which one among the following is used to make periscope?

Concave lens

Concave mirror

Plane mirror

None of the above

Answer (c).

4. What is the power of the lens, if the far point of a short-sighted eye is 200 cm?

-0.5 D

2 D

1 D

-1.5 D

Answer (a).

5. The image formed by a convex mirror of a real object is larger than the object

when u < 2f

when u > 2f

for all values of u

for no value of u

(u – object distance, f – focal length)

Answer (d).

6. The mirror used for the head light of a car is

spherical concave

plane

cylindrical

parabolic concave

Answer (d).

7. The ratio of the focal length of the objective to the focal length of the eyepiece is greater than one for

a microscope

a telescope

both microscope and telescope

neither microscope nor telescope

Answer (b).

8. The radius of curvature of a plane mirror

is zero

is infinity

can be anywhere between zero and infinity

None of the above

Answer (b).

9. The human eye is like a camera and hence it contains a system of lens. The eye lens forms

a straight or upright, real image of the object on the retina

an inverted, virtual image of the object on the retina

an inverted, real image of the object on the retina

a straight or upright, real image of the object on the iris

Answer (c).

10. An object is placed at the focus of a concave mirror. The image will be

real, inverted, same size at the focus

real, upright, same size at the focus

virtual, inverted, highly enlarged at infinity

real, inverted, highly enlarged at infinity

Answer (d).

11. What kind of image is created by a concave lens?

upright and smaller

inverted and smaller

inverted and larger

upright and smaller

Answer (a).

12. An optician prescribes a power = - 0.5 dioptre. The corresponding lens must be a

convex lens of focal length 2 m

convex lens of focal length 50 cm

concave lens of focal length 2 m

concave lens of focal length 50 cm

Answer (c).