

Light

A. Choose the correct option:

1. We can see a non-luminous object when light:
 - a) Emitted by the object and falls on the eye
 - b) Reflected by the object and falls on the eye
 - c) Completely passes through the object
 - d) Completely absorbed by the object

2. Light is falling on the surfaces as shown in the figure:

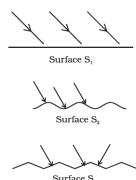


Fig. 16.1

Surfaces on which angle of incidence and angle of reflection will be equal is/are

- a) In Surface 1
- b) In Surfaces 2 and 3
- c) In all the surfaces
- d) Non of the surfaces

3. A tiny mirror M is fixed on a piece of cardboard placed on a table. The cardboard is illuminated by light from a bulb. The position of the eye with respect to the position of the bulb is shown in Fig.16.2 as A, B, C and D. In which position mirror will be visible?

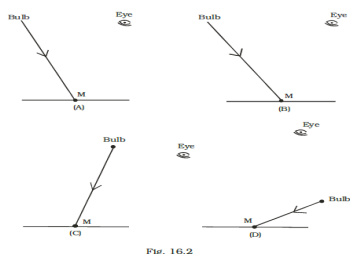


Fig. 16.2

- a) A.
- b) B.
- c) C.
- d) D

4. A small hole P is made in a piece of cardboard. The hole is illuminated by a torch as shown in Fig. 16.3. The pencil of light coming out of the hole falls on a mirror.

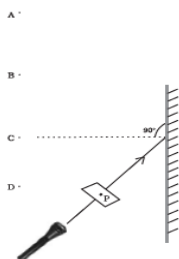


Fig. 16.3

At which point should the eye be placed so that the hole can be seen?

- (a) A.
- (b) B.
- (c) C.
- (d) D

5. How many times is a ray of light reflected by two plane mirrors placed parallel and facing each other?

- a) One time. b) Numerous times. c) zero time. d) none of them

6. The distance between the object and its image formed by a plane mirror appears to be 24 cm. What is the distance between the mirror and the object?

- a) 24 cm. b) 48 cm. c) 6 cm. d) 12 cm

7. Two mirrors are placed at angle 24° and an object is kept in front of it. How many images will be formed?

- a) 7. b) 11. c) 15. d) 14

8. Boojho planned activity to observe an object A through pipes as shown in Fig. 16.8, so that he could see objects which he could not directly see.

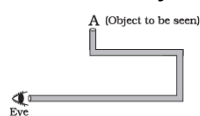


Fig. 16.8

How many mirrors should he use to see the objects?

- a) 2. b) 3. c) 4. d) 1

9. There can be mistakes in ray diagrams given as Fig. 16.9 a, b, and c. Mistake is there in which of the following ray diagram?

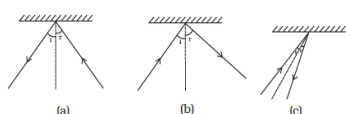


Fig. 16.9

- a) In diagram (a). c) In diagram b and c
b) Only in diagram c. d) In all the three diagrams

10. Two mirrors A and B are placed at right angles to each other as shown in the figure. A ray of light incident on mirror A at an angle of 25° with the normal falls on mirror B after reflection. The angle of reflection for the ray reflected from mirror B would be

- (a) 25°
(b) 50°
(c) 65°
(d) 115°

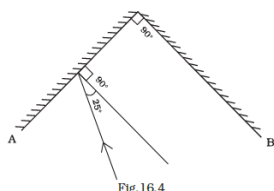


Fig.16.4