

Marking Scheme: All questions carry 10 marks each. Subparts (A) and (B) carry 3 marks each and subpart (C) carries 4 marks.

Question 1:

Q1) Fill in the blanks:

- i) Splitting of light into its constituent colors is known as _____
- ii) Visually challenged persons can read and write using _____ system
- iii) _____ cells in the eye are sensitive to bright light

Q2) Choose the correct option:

- i) Angle of incidence is equal to the angle of reflection
 (a) Always (b) Sometimes (c) Under special conditions (d) Never
- ii) Image formed by a plane mirror is
 - (a) virtual, behind the mirror and enlarged
 - (b) virtual, behind the mirror and of the same size as the object
 - (c) real at the surface of the mirror and enlarged
 - (d) real, behind the mirror and of the same size as the object.
- iii) Principal of kaleidoscope is
 (a)Regular reflection
 (b)Irregular reflection
 (c)Multiple reflection
 (d)Diffused reflection

Q3) Solve:

 Two mirrors meet at right angles. A ray of light is incident on one at an angle of 30° as shown in Fig.
 Draw the reflected ray from the second mirror.



Question 2.

- 1. Write down the names of parts of eye in the blank spaces shown in figure:
- 2. Answer the following:
 - a) What are the two laws of reflection?
 - b) Give principle and applications of periscope and kaleidoscope
 - c) Draw a neat diagram showing angle of incidence and angle of reflection.
- 3. Define:
 - i) Angle of incidence
- ii) Angle of reflection iv) Diffused reflection
- ii) iii) Regular reflection

Question 3:

- 1. Give reasons:
 - i) We are not able to see objects in the dark
 - ii) Junction of retina and optic nerve is called blind spot

2. Solve:

- i) A candle is 30 cm high. What is the height of its image in a plane mirror?
- ii) The color of iris in a person is green. What is the color of eye in that person?
- iii) A toy is placed at 10 cm in front of a plane mirror. What is the distance of image from the mirror?
- 3. Mention against each of the following whether regular or diffused reflection will take place when a beam of light strikes. Justify your answer in each case.
- i) Polished wooden table
- ii) Cardboard surface
- iii) Piece of paper
- iv) Marble floor with water spread over it