

SCIENCE
WORKSHEET_140226
CHAPTER 13 LIGHT (QUESTION PAPER)

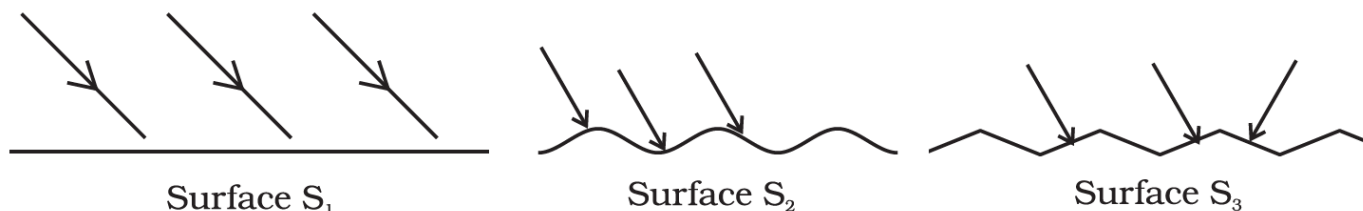
SUBJECT: SCIENCE
CLASS : VIII

MAX. MARKS : 40
DURATION : 1½ hr

SECTION – A

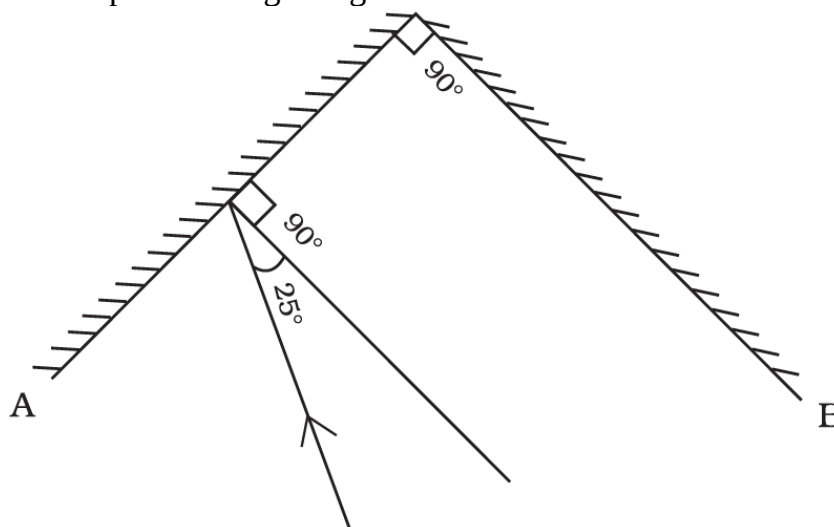
Questions 1 to 6 carry 1 mark each.

1. Light is falling on surface S_1 , S_2 , S_3 as shown in below figure:



Surfaces on which the angle of incidence is equal to the angle of reflection is/are

- (a) S_1 only
 - (b) S_1 and S_2 only
 - (c) S_2 and S_3
 - (d) all the three surfaces
2. Two mirrors A and B are placed at right angles to each other as shown in



A ray of light incident on mirror A at an angle of 25° falls on mirror B after reflection. The angle of reflection for the ray reflected from mirror B would be

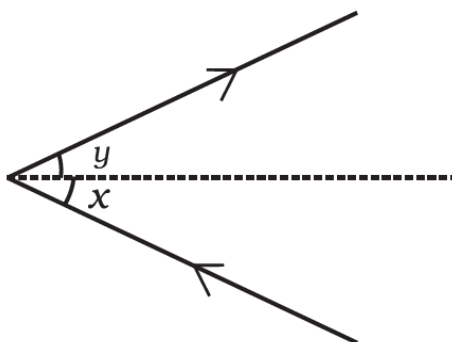
- (a) 25°
 - (b) 50°
 - (c) 65°
 - (d) 115°
3. Which of the following statements is correct regarding rods and cones in the human eye?
- (a) Cones are sensitive to dim light.
 - (b) Cones are sensitive to bright light.
 - (c) Rods are sensitive to bright light.
 - (d) Rods can sense colour.
4. The image formed by plane mirror is
- (a) real and inverted
 - (b) real and erect
 - (c) virtual and inverted
 - (d) virtual and erect.
5. What are the special features in owls eye that help it to see clearly in night.
- (a) Large cornea, large pupil and more rods
 - (b) Large pupil, more rods
 - (c) Small cornea, large pupil and more rods
 - (d) Large cornea, less rods

6. In the below question, a statement of Assertion (A) is followed by a statement of Reason (R). Mark the correct choice as
Assertion (A): Diffused reflection is caused due to irregular surface.
Reason (R): Diffused reflection is due to failure of laws of reflection.
 (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
 (b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A)
 (c) Assertion (A) is true but reason (R) is false.
 (d) Assertion (A) is false but reason (R) is true.

SECTION – B

Questions 7 to 10 carry 2 marks each.

7. Draw the below figure showing the position of the plane mirror. Also label the angle of incidence and angle of reflection on it.

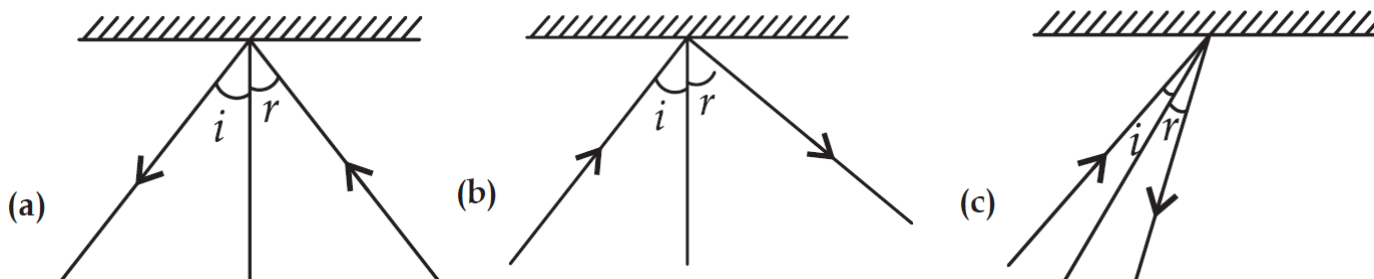


8. What is lateral inversion?
9. How do we get numerous beautiful patterns in a kaleidoscope?
10. Which part of the eye gets affected if someone is suffering from cataract? How is it treated?

SECTION – C

Questions 11 to 14 carry 3 marks each.

11. There is a mistake in each of the following ray diagrams given as below figure a, b, and c. Make the necessary correction (s).



12. What are the characteristics of image formed by plane mirror?
13. Which disease of eye is caused by nutritional deficiency? Which nutrient should be added in the diet for healthy eyes? Which food items contain this nutrient?

14. Differentiate between Optical and Non-Optical Aids.

SECTION – D

Questions 15 to 16 carry 5 marks each.

15. What is Braille system? Explain.

OR

Describe the construction of a kaleidoscope.

16. Explain the structure and working of a human eye.

SECTION – E (Case Study Based Question)

Question 17 carry 4 mark

17. Have you ever thought how we see various objects? You may say that eyes see the objects. But, can you see an object in the dark? It means that eyes alone cannot see any object. It is only when light from an object enters our eyes that we see the object. The light may have been emitted by the object, or may have been reflected by it. A polished or a shiny surface can act as a mirror. A mirror changes the direction of light that falls on it. After striking the mirror, the ray of light is reflected in another direction.



(a) What do you mean by reflection of light? (1)

(b) Define incident angle. (1)

(c) What is the difference between regular reflection and diffused reflection? (2)

OR

State two laws of reflection of light.