

Worksheet: Light: Mirrors and Lenses

West Bengal State Board · Class 8 · Science · 8 questions · 12 marks

Name: _____

Date: _____

Score: _____ / 12

Q1. Which of the following always gives an image that is erect and diminished, whatever the distance of the object? *[1 mark]*

- A) Convex mirror
- B) Plane mirror
- C) Concave mirror
- D) Convex lens

Q2. In Activity 10.6, multiple parallel beams of light fall on a concave mirror. What happens to the reflected beams? *[1 mark]*

- A) They are absorbed
- B) They stay parallel
- C) They converge
- D) They diverge

Q3. An object is placed very close to a concave mirror. What kind of image is formed? *[1 mark]*

- A) Erect and diminished
- B) Erect and enlarged
- C) Inverted and enlarged
- D) Inverted and diminished

Q4. Assertion (A): The angle of incidence equals the angle of reflection, whatever direction the mirror is tilted. Reason (R): Both angles are measured from the normal at the specific point of incidence, and the normal always adjusts to the mirror's own orientation at that point. *[1 mark]*

- A) A is false but R is true
- B) A is true but R is false
- C) Both A and R are true, and R is the correct explanation of A
- D) Both A and R are true, but R is not the correct explanation of A

Q5. A convex lens is held close to a page of text, and the letters look larger and the right way up. What happens if the lens is now moved much farther from the same text? *[1 mark]*

- A) The image becomes erect and diminished
- B) The image becomes inverted, first enlarging further and then diminishing
- C) The image stays erect and enlarged at every distance
- D) The image disappears entirely

Q6. Explain why a spoon's inner and outer surfaces give two different kinds of image, using the chapter's own vocabulary (not focal length or ray diagrams). *[3 marks]*

Q7. Which of these is NOT stated anywhere in this chapter about spherical mirrors? *[1 mark]*

- A) The laws of reflection hold for spherical mirrors as well as plane mirrors
- B) Images can be classified as real or virtual depending on the position of the object relative to the focus
- C) A concave mirror's reflecting surface curves inwards
- D) A convex mirror always gives an erect, diminished image

Q8. A student says lenses and mirrors both 'reflect' light. Correct this statement using the chapter's own distinction. *[3 marks]*
