Brain International School
Vikas Puri, New Delhi

ASSIGNMENT NO. 4

SUBJECT: SCIENCE **CLASS-VIII** **November'2026**

Chapter 10 Light: Mirrors and Lenses
Answer the following questions:

1. How does a concave mirror's image change as the object moves away?
2. Why do convex mirrors make objects seem farther away?
3. Explain why a convex lens can burn paper but a concave lens cannot.
4. What images do concave and convex lenses form at various distances?
5. Match Column A with the correct option in Column B.

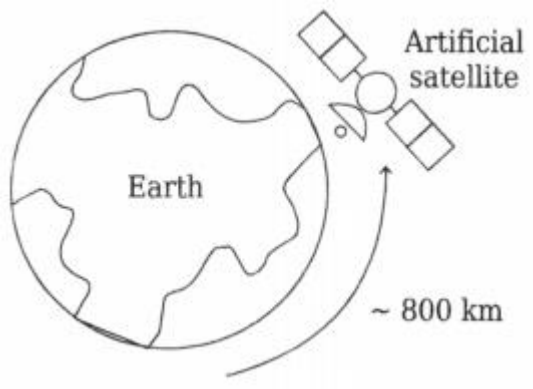
Column A	Column B
1) Concave mirror	a) Erect, diminished image at any distance (diverges rays)
2) Convex mirror	b) i = r
3) Convex lens	c) Converges parallel rays to a point; can burn paper
4) Concave lens	d) Erect, diminished image; wider field of view
5) First law of reflection	e) Enlarged erect image when close; inverted when far

6. What is reflection of light? State the laws of reflection.
7. Compare the effect of a convex lens and a concave lens on parallel beams of light.
8. Differentiate between a concave mirror and a convex mirror based on shape, nature of the image formed, and their two uses.
9. A character, "Ray the Light Beam", is trapped inside a magical room. The room has different objects on the walls marked X, Y, and Z:
   (a) Wall X shows a clear, same-sized image when ray hits it.
   (b) Wall Y curves outward and always shows a small image.
   (c) Wall Z is curved inward and can make a large image if ray comes close.

Chapter 11 Keeping Time with the Skies
Answer the following questions:

1. Why don't eclipses happen every month?
2. Explain why the Moon appears to change shape.
3. Differentiate waxing and waning phases.
4. How do lunar, solar, and luni-solar calendars differ?
5. How does the Sun's apparent motion help us measure a day?

6. Describe the difference between crescent and gibbous phases of the Moon, and how they appear.
7. How can a simple ball-and-lamp model help explain the phases of the Moon?
8. Consider the following and answer the following questions.



(a) What is an artificial satellite?

(b) Mention two uses of artificial satellites.

(c) Why do satellites look like moving stars in the night sky?

9. A group of students watched a solar eclipse with their teacher using proper eye protection.

(a) What causes a solar eclipse?

(b) Which Moon phase is required for a solar eclipse to occur?

(c) Why is it dangerous to look at a solar eclipse without protection?