

Name of the School: _____

SUMMATIVE ASSESSMENT – I (2026–27)
Class X — PHYSICAL SCIENCE (Science – Part I)

English Medium

Model Question Paper — Set B

Time: 1 Hour 30 Minutes

Max. Marks: 40

Name of the Student: _____ Roll No.: _____

Syllabus covered: Ch. 1 Reflection of Light at Curved Surfaces, Ch. 2 Chemical Reactions and Equations, Ch. 3 Acids, Bases and Salts, Ch. 4 Refraction of Light at Curved Surfaces, Ch. 5 Human Eye and Colourful World, Ch. 6 Structure of Atom

Instructions:

1. Part A (30 marks) is to be answered in the answer booklet in the first 1 hour 10 minutes.
2. Section I: Q.1–6 — answer all, 1 mark each. Section II: Q.7–10 — answer all, 2 marks each.
3. Section III: Q.11–14 — each question has internal choice; answer (a) or (b). 4 marks each.
4. Part B (10 marks) is to be answered on the question paper itself in the last 20 minutes.
5. Draw neat, labelled diagrams wherever necessary.

PART – A

Time: 1 Hour 10 Minutes Marks: 30

SECTION – I

Note: Answer ALL the questions. Each question carries 1 mark. $(6 \times 1 = 6)$

1. Name the mirror used as a rear-view mirror in vehicles.
2. What is a combination reaction? Give one example.
3. Name the acid present in curd.
4. Write the lens maker's formula.
5. What is the far point of a normal human eye?
6. How many orbitals are present in a 'p' sub-shell?

SECTION – II

Note: Answer ALL the questions. Each question carries 2 marks. $(4 \times 2 = 8)$

7. Write any two differences between a real image and a virtual image.
8. Balance the equation $\text{C}_3\text{H}_8 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$ and name the type of reaction.
9. Why does the Sun appear reddish at sunrise and sunset?
10. Write the electronic configurations of chlorine ($Z = 17$) and calcium ($Z = 20$).

SECTION – III

Note: Answer ONE question (a or b) from each of Q.11 to 14. Each question carries 4 marks. $(4 \times 4 = 16)$

11. (a) A convex mirror used as a rear-view mirror has a radius of curvature of 3 m. A bus is located 5 m from the mirror. Find the position, nature and magnification of the image.

OR

- (b) Draw ray diagrams to show the image formed by a convex lens when the object is placed (i) at $2F_1$ and (ii) between F_1 and the optical centre.
12. (a) Describe an activity to show that acids produce ions only in aqueous solution and conduct electricity. Draw the diagram.

OR

- (b) What is corrosion? Explain any three methods to prevent corrosion of iron.

13. (a) What is hypermetropia? What are its causes? How is it corrected? Draw diagrams.

OR

(b) A person with myopia cannot see objects clearly beyond 1.2 m. What kind of lens is required to correct the defect? Find its power.

14. (a) Explain the principal, azimuthal and magnetic quantum numbers.

OR

(b) State the Aufbau principle, Pauli's exclusion principle and Hund's rule with one example each.

PART – B

Time: 20 Minutes

Marks: 10

I. Multiple Choice Questions

Choose the correct answer and write its letter in the bracket. ($5 \times 1 = 5$)

1. The image formed by a convex mirror is always []
(A) real and inverted (B) virtual, erect and diminished
(C) virtual and magnified (D) real and of the same size
2. $2\text{AgCl} \rightarrow 2\text{Ag} + \text{Cl}_2$ in the presence of sunlight is an example of []
(A) combination (B) photolytic decomposition
(C) displacement (D) double displacement
3. The acid present in an ant sting is []
(A) acetic acid (B) methanoic acid (C) citric acid (D) oxalic acid
4. The focal length of a lens of power -2 D is []
(A) $+50\text{ cm}$ (B) -50 cm (C) -2 m (D) $+2\text{ m}$
5. The electronic configuration of magnesium ($Z = 12$) is []
(A) $1s^2 2s^2 2p^6 3s^2$ (B) $1s^2 2s^2 2p^6 3s^1$
(C) $1s^2 2s^2 2p^6$ (D) $1s^2 2s^2 2p^6 3s^2 3p^1$

II. Fill in the Blanks

($5 \times 1 = 5$)

6. The centre of the sphere of which the mirror is a part is called the _____.
7. The chemical name of washing soda is _____.
8. The speed of light in vacuum is _____.
9. The ability of the eye lens to adjust its focal length is called _____.
10. The maximum number of electrons that an orbital can hold is _____.

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