

Name of the School: _____

SUMMATIVE ASSESSMENT – I (2026–27)

Class IX — PHYSICAL SCIENCE (General Science – Paper 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 Matter Around Us, Ch. 2 Motion, Ch. 3 Laws of Motion, Ch. 4 Refraction of Light at Plane Surfaces, Ch. 5 Gravitation, Ch. 6 Is Matter Pure?, Ch. 7 Atoms and Molecules

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. Convert 300 K into the Celsius scale.
2. What is uniform circular motion? Give one example.
3. Define momentum. Write its SI unit.
4. Why does a pencil partly immersed in water appear bent?
5. Why is the weight of an object on the Moon less than its weight on the Earth?
6. What is a saturated solution?

SECTION – II

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

7. A train travels 60 km in the first hour and 40 km in the next hour. Find its average speed.
8. Why does a cricket player move his hands backwards while catching a fast-moving ball?
9. The refractive index of water is 1.33 and that of glass is 1.5. Find the refractive index of glass with respect to water.
10. Write any two differences between a mixture and a compound.

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) Explain any three characteristics of particles of matter with an activity for each.

OR

(b) What is latent heat of vaporisation? Explain why steam at 100 °C causes more severe burns than boiling water at 100 °C.

12. (a) Draw a velocity–time graph for a uniformly accelerated body and derive the equation $s = ut + \frac{1}{2}at^2$.

OR

(b) A ball is thrown vertically upwards with a velocity of 49 m/s. Calculate (i) the maximum height it reaches (ii) the total time taken to return to the ground. (Take $g = 9.8 \text{ m/s}^2$)

13. (a) State the law of conservation of momentum. A bullet of mass 20 g is fired from a gun of mass 4 kg with a velocity of 400 m/s. Find the recoil velocity of the gun.

OR

- (b) State Newton's second law of motion and derive $F = ma$.

14. (a) What is total internal reflection? Explain any three applications of it.

OR

- (b) How will you separate a mixture of common salt, sand and ammonium chloride? Explain the steps with the method used in each step.

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 rate of diffusion is highest in []
(A) solids (B) liquids (C) gases (D) all are equal
2. The area under a velocity–time graph gives []
(A) acceleration (B) displacement (C) speed (D) force
3. The SI unit of force is []
(A) joule (B) watt (C) newton (D) pascal
4. The refractive index of vacuum is []
(A) 0 (B) 1 (C) 1.33 (D) 1.5
5. The symbol of sodium is []
(A) S (B) So (C) Na (D) Sd

II. Fill in the Blanks

($5 \times 1 = 5$)

6. The boiling point of water on the kelvin scale is _____.
7. The rate of change of velocity is called _____.
8. The law of conservation of mass was given by _____.
9. The speed of light in vacuum is _____.
10. A mixture in which the components are uniformly distributed is called a _____ mixture.

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