

Name of the School: _____

SUMMATIVE ASSESSMENT – I (2026–27)

Class IX — PHYSICAL SCIENCE (General Science – Paper I)

English Medium

Model Question Paper — Set A

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. What is diffusion? Give one example.
2. A cyclist covers 100 m in 20 s. Find his average speed.
3. State Newton's first law of motion.
4. Light travels at 2×10^8 m/s in a medium. Find the refractive index of the medium. (Speed of light in vacuum = 3×10^8 m/s)
5. What is the value of the acceleration due to gravity (g) on the surface of the Earth?
6. What is a colloid? Give one example.

SECTION – II

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

7. Write any two differences between distance and displacement.
8. Why do passengers in a bus fall forward when the moving bus stops suddenly?
9. What is total internal reflection? Write the two conditions necessary for it.
10. Calculate the molar mass of H_2SO_4 . (Atomic masses: H = 1 u, S = 32 u, O = 16 u)

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) What is evaporation? Explain any three factors that affect the rate of evaporation. Why does evaporation cause cooling?

OR

(b) Explain, with an example, how the state of matter changes when heat is supplied. What is latent heat of fusion?

12. (a) A body starts from rest and moves with a uniform acceleration of 2 m/s^2 for 10 s. Find (i) its final velocity (ii) the distance travelled. Draw its velocity–time graph.

OR

(b) Derive the equation $v = u + at$ using a velocity–time graph.

13. (a) A force acts on a body of mass 5 kg and changes its velocity from 3 m/s to 7 m/s in 2 s. Find (i) the change in momentum (ii) the force applied.

OR

(b) State Newton's third law of motion. Explain it with any three examples from daily life.

14. (a) Explain how a mirage is formed. Why do we see water on a hot road on a summer afternoon?

OR

(b) State the universal law of gravitation. How does the gravitational force between two bodies change if (i) the distance between them is doubled (ii) the mass of one body is also doubled?

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 SI unit of temperature is []
(A) Celsius (B) Fahrenheit (C) kelvin (D) joule
2. The slope of a distance–time graph gives []
(A) acceleration (B) speed (C) force (D) displacement
3. The inertia of a body depends on its []
(A) shape (B) colour (C) mass (D) volume
4. The critical angle for glass ($n = 1.5$) is about []
(A) 24° (B) 42° (C) 48° (D) 60°
5. Cream is separated from milk by []
(A) filtration (B) sublimation (C) centrifugation (D) distillation

II. Fill in the Blanks

($5 \times 1 = 5$)

6. The change of a solid directly into a gas is called _____.
7. The SI unit of acceleration is _____.
8. According to Snell's law, $n_1 \sin i =$ _____.
9. The value of the universal gravitational constant G is _____.
10. The atomicity of ozone (O_3) is _____.

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