HANSRAJ PUBLIC SCHOOL
SECTOR-6, PANCHKULA
CLASS: IX, SUBJECT: SCIENCE
PERIODIC TEST-I (2025 – 26)

DATE: 22.05.25 **ROLL NO:**
DURATION: 1 hour 30 minutes **MAX MARKS: 40**

General Instructions:

(i) This question paper consists of 20 questions in 5 sections.
(ii) All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.
(iii) Section A consists of 12 objective type questions carrying 1 mark each.
(iv) Section B consists of 2 Short questions carrying 02 marks each. Answers to these questions should be in the range of 30 to 50 words.
(v) Section C consists of 2 Short Answer type questions carrying 03 marks each. Answers to these questions should be in the range of 50 to 80 words
(vi) Section D consists of 2 Long Answer type questions carrying 05 marks each. Answer to these questions should be in the range of 80 to 120 words.
(vii) Section E consists of 2 source-based/case-based units of assessment of 04 marks each with sub-parts.

Section A

1. Which one of the following is the correct sequence for interparticle force of attraction?
(a) Brick < chalk < iron (b) Chalk < brick < iron
(c) Brick < iron < chalk (d) Iron < chalk < brick

2. Solids cannot be compressed because :
(a) Movement of constituent particles is restricted
(b) Constituent particles are very closely and tightly packed
(c) Constituent particles diffuse very slowly
(d) Interparticle attractive forces are weak

3. Least rigidity is observed in
(a) Sodium (b) Rubber (c) Iron (d) Coal

4. The numerical ratio of distance to displacement for a moving object is
(a) always greater than 1 (b) always equal to 1
(c) equal or greater than 1 (d) equal or less than 1

5. The distance travelled and displacement covered by tip of a minutes' hand of radius 'r' in a clock after its half revolution respectively is:
(a) $2\pi r$; r (b) zero, 2r (c) πr, 2r (d) 2r, zero

6. Which of the following statement is correct regarding velocity and speed of a moving body?
(a) velocity of a moving body is always higher than its speed
(b) speed of a moving body is always higher than its velocity
(c) speed of a moving body is its velocity in a given direction
(d) velocity of a moving body is its speed in a given direction

7. Plasmolysis in a plant cell is defined as
(A) Breakdown of plasma membrane in hypotonic medium.
(B) Shrinkage of cytoplasm in hypertonic medium
(C) Shrinkage of nucleoplasm
(D) Breakdown of cell wall

8. Which of the following statements about plastids is correct?
(A) Plastids are found in all animal cell.
(B) Chloroplasts are a type of plastid that help in photosynthesis
(C) Chromoplast store starch and oils
(D) Leucoplasts contain chlorophyll for trapping sunlight.

9. If the ribosomes of the cell are destroyed,then
(A) respiration will stop
(B) fats will not be stored
(C) proteins will not be formed.
(D) transport of material will stop.

For question numbers 10, 11 and 12, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select and write the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:
(a) Both A and R are true, and R is correct explanation of the assertion.
(b) Both A and R are true, but R is not the correct explanation of the assertion.
(c) A is true, but R is false.
(d) A is false, but R is true.

10. ASSERTION: Plant cell wall lacks selective permeability.
REASON : The cell wall allows free passage of dissolved materials through it.

11. ASSERTION- A gas can be easily compressed by applying pressure.
REASON- The interparticle spaces in the gaseous state cannot be decreased by applying pressure.

12. ASSERTION: Displacement of a body may be zero when distance travelled by it is not zero.
REASON: The displacement is the shortest distance between initial and final position.

SECTION- B

13. Rahnu Starts from position X, travels a distance of 5 m towards North, then takes left turn to travel 4 m and then takes right turn to travel 3 m to reach his destination Y.
(i) Find the total distance travelled?
(ii) What is the resultant displacement? (1+1)

14. (a) When 10 g of salt is dissolved in 200 mL of water, no change in volume is observed. What characteristic of matter is shown by this observation?
(b) Substance 'S' can take up the shape of any container, and has high compressibility : predict the nature of the substance. Write two more properties of this state of matter. (0.5+1.5)

SECTION-C

15. (a) Why smell of hot sizzling food reaches us quickly but not of cold ice cream?
(b) Give reason: Liquids have no fixed shape.
(c) Define Brownian motion. (1+1+1)

16. (a) Identify the given figure.
(b) Label A, B, C
(c) What is the function of C? (0.5+1.5+1)

SECTION-D

17(a) Name two parts of a plant cell which differentiate it from an animal cell. Mention their functions also.
(b) Compare and contrast between organ and organelle.
(c) Draw a well labelled diagram of a prokaryotic cell. (2+1+2)

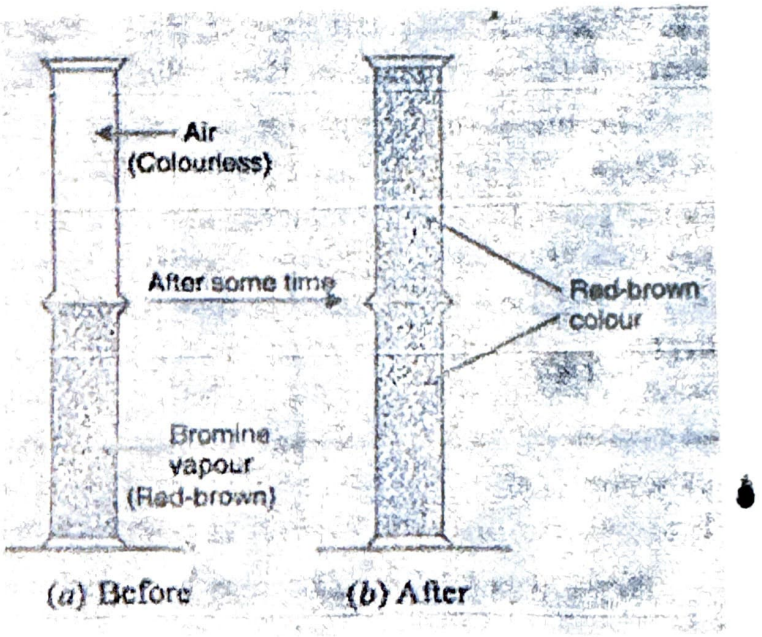
18. (a) Anil travels from home to school at a uniform speed of 40 km/h and back to home on the same track at a uniform speed of 50 km/h. Calculate his average speed.
(b) Identify the type of motion in which the average speed of the particle is the same as that of the speed of the particle.
(c) Explain with an example that a body can be in motion as well as at rest at same time. (2.5+1+1.5)

SECTION-E

19. Chitranshu travels a distance of 1000 metres in 25 minutes going from his home to the shop in the East direction, and then travels the same distance again in 20 minutes in the reverse direction from the shop to reach back home .
(a) Find the average speed of Chitranshu.
(b) Define non-uniform motion.
(c) State any two differences between speed and velocity of a body. (1+1+2)

distance travel displ

20. Look at the diagram given below. In a diagram (a) Jar at the bottom contains a red-brown gas whereas upside down jar over it contains a colourless gas. The two gas jars are separated by a glass plate placed between them. The phenomena shown in a diagram (b) after removal of the glass plate.



(a) Define the phenomenon taking place in the case given above.
(b) Which two properties of particles of matter are shown in the above case?
(c) Write down one condition with which rate of this phenomenon can be controlled ? (1+2+1)