

**O.P.JINDAL SCHOOL, SAVITRI NAGAR  
PERIODIC TEST –I (Round-1) (2025-26)**

**CLASS-IX** **MAX.MARKS-20**  
**SUBJECT-SCIENCE** **MAX.TIME-1Hour**

## **General Instruction:-**

- (i) All questions are compulsory. There are 12 questions in this question paper with internal choice.
- (ii) **SECTION -A:** Question numbers 1 to 6 are MCQs, carrying 1 mark each.
- (iii) **SECTION -B:** Question numbers 7 to 10 are short answer questions carrying 2 marks each.
- (iv) **SECTION -C:** Question numbers 11 and 12 are long questions carrying 3 marks each.

## SECTION A

**Q1.** The property to flow is unique to fluids. Which one of the following statements is correct?

(a) Only gases behave like fluids. (b) Gases and solids behave like fluids.  
(c) Gases and liquids behave like fluids. (d) Only liquids are fluids.

**Q2.** What is the term for the jelly-like substance found inside the cell membrane?

(a) Nucleus (b) Cytoplasm  
(c) Cell wall (d) Mitochondria

**Q3.** On converting  $25^{\circ}\text{C}$ ,  $38^{\circ}\text{C}$  and  $66^{\circ}\text{C}$  to Kelvin scale, the correct sequence of temperature will be

(a) 298 K, 311 K and 339 K (b) 298 K, 300 K and 338 K  
(c) 273 K, 278 K and 543 K (d) 298 K, 310 K and 338 K

**Q4.** What is the process by which water moves across a semipermeable membrane?

(a) Diffusion (b) Osmosis  
(c) Active transport (d) Endocytosis

**Q5.** If a car is traveling north on a straight road and its brakes are applied, it will

(a) have no acceleration (b) accelerate to the south  
(c) accelerate to the north (d) accelerate either east

**Q6.** If a car at rest accelerates uniformly to a speed of 144 km/h in 20 sec., it covers a distance of

(a) 20 cm (b) 400 m  
(c) 1440 cm (d) 2980 cm

## SECTION B

**Q7.** Comment on the following statements:

- (i) Evaporation causes cooling.
- (ii) Sugar crystals dissolve faster in hot water than cold water.

**OR**

Comment on the following statements:

- (i) Sponge though compressible is a solid.
- (ii) Ice is solid at  $0^{\circ}\text{C}$ , while water is liquid at room temperature.

**Q8.** (i) Why do we see water droplets on the outer surface of a glass containing ice cold water?

(ii) Rate of evaporation of an aqueous solution decreases with increase in humidity.  
Why?

**OR**

Water as ice has a cooling effect, whereas water as steam may cause severe burns.

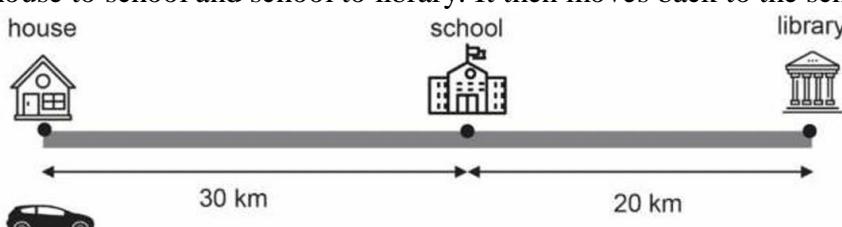
Explain.

**Q9.** Explain the role of the nucleus in a cell.

**OR**

Describe the structure and function of the cell membrane.

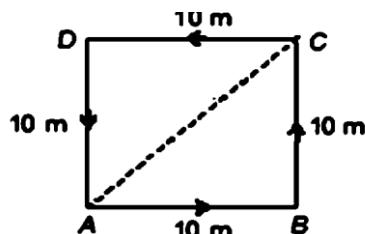
**Q10.** The figure below shows the motion of a car along a straight path. The car moves from house to school and school to library. It then moves back to the school and stops.



- (i) What is the net displacement of the car in whole journey?
- (ii) What is the distance travelled by the car in whole journey?

**OR**

ABCD is a square shaped field having side 10 m each. A particle moves along the edge of the field as shown in the figure. Answer the following questions by observing the following diagram below.



(i) What is the displacement, when the particle moves from point A to D?  
(ii) What is the displacement, when the particle moves from point A to C through  $A \rightarrow B \rightarrow C$ ?

### SECTION C

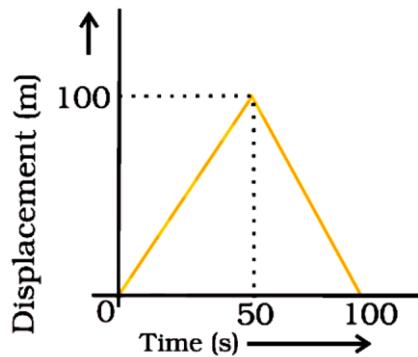
**Q11.** Distinguish between a prokaryotic cell and a eukaryotic cell?  
**OR**

Draw a well labeled diagram of plant cell.

**Q12.** Derive the equation of motion:  $v^2 - u^2 = 2as$ , where 'v' and 'u' are initial and final velocities, s is displacement and a is acceleration of an object. All physical quantities are in S.I system.

**OR**

(i) A girl walks along a straight path to drop a letter in the letterbox and comes back to her initial position. Her displacement-time graph is shown in below figure. Plot a velocity-time graph for the same.



(ii) Define uniform circular motion.

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