CLASS: IX   MAX MARKS: 20
DATE: 18.05.22   TIME : 45 MINUTES
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General Instructions: **SET 1**
 i) All questions are compulsory.
 ii) The question paper has three sections and 11 questions.
 iii) Section-A has 5 questions of 1 mark each; Section-B has 3 questions of 2 marks each;
      Section-C has 2 questions of 3 marks each and 1 case-based question of 3 marks.

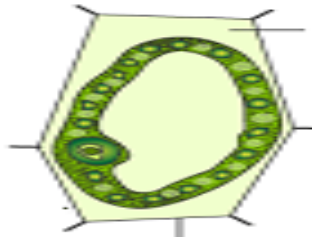| SECTION - A	

1.	What type of motion is exhibited by a freely falling body ?
	  a) Non-uniform acceleration b) Uniform acceleration
	  c) Uniform velocity d) Uniform speed
		1

2.	Name the process involved in the following change:
	      Gas ⟶ Liquid
	
	  a) Solidification b) Sublimation
	  c) Condensation d) Vaporisation
		1

3.	Boiling point of a liquid is 623K. What will be its value in Celsius scale?
	  a) 350°C b) 896°C
	  c) -350°C d) -896°C
		1

	For question numbers 4 and 5, a statement of assertion (A) & corresponding statement of reason (R) are given. Choose the most appropriate answer to these questions from the given options .
	    a) Both **A** & **R** are true and **R** is the correct explanation of **A**.
	    b) Both **A** & **R** are true but **R** is not the correct explanation of **A**.
	    c) **A** is true but **R** is false.
	    d) **A** is false but **R** is true.	

4.	(A): The nucleus plays a central role in cellular reproduction. (R): The nucleus has a double layered covering called nuclear membrane.	**1**
5.	(A): Cell organelles together constitute the basic unit called the cell. (R): A cell is able to live and perform all its functions because of its organelles.	**1**
SECTION - B	
6.	a) Which property of cell membrane enables amoeba to engulf in food from its external environment ? What is this process called ? b) Name the chief organic molecules which make up the plasma membrane.	**2**
7.	a) What is the acceleration of a body moving with uniform velocity ? b) A bus accelerates uniformly from 54km/h to 72km/h in 10s. Calculate the acceleration of the bus in m/s^2.	**2**

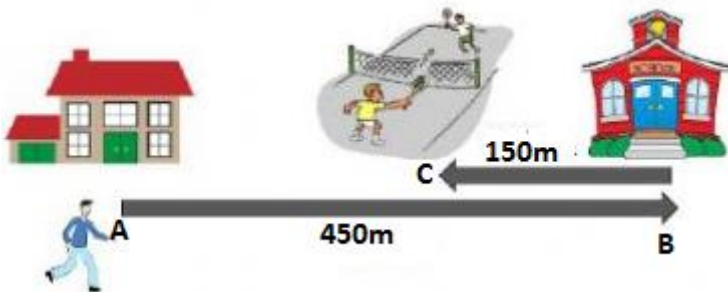| 8. | Give reasons for the following:
    a) A gas cylinder cannot be half filled.
    b) We smell perfume sitting a few metres away. | **2** |

	SECTION -C	
9.	With the help of a labelled diagram describe in brief an activity to show sublimation of ammonium chloride.	**3**
10	a) Compare the nuclear region of an onion cell and a bacterial cell. b) In the given figure, what type of solution the cell is kept? Name and define the phenomenon shown below. 	**3**

	Case-based question	

11	Arjun lives at place **A** and he has to reach another place **C,** but first he has to meet his friend living at place **B.** So, he starts from place **A** and travels a distance of 450m in 3 minutes to reach place **B**, and then travels another 150m back to a place **C** in another 1 minute.
	
	    a) Calculate Arjun's average speed of the entire journey (from A to C) in m/s.
	    b) Observe the above diagram and calculate the magnitude of distance travelled and displacement by Arjun's whole journey.
	    c) From A to C the distance travelled and the magnitude of displacement is not equal. Give reason for the above observation.
		3

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