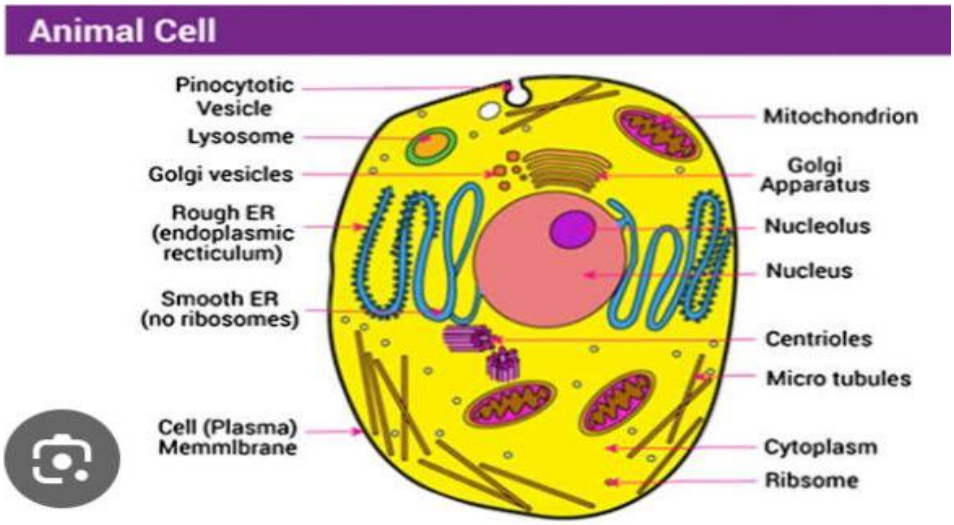
DELHI PUBLIC SCHOOL ,JAMMU
CYCLE TEST : 01
SESSION (2024-25)
ANSWER KEY
SET-2

CLASS: IX

SUBJECT: SCIENCE

Q.NO	ANSWERS	RUBRICS
1	(c) 2r	1
2	(d) Straight, non-uniform motion	1
3	(b) Oxygen, water, sugar	1
4	(c)Gases and liquids behave like fluids.	1
5	(a) Prokaryotic cell	1
6	(b) Chloroplast	1
7	(a) Robert Hooke	1
8	A)Both A and R are true and R is the correct explanation of A	1
9	C) Assertion is true but Reason is false.	1
10	A)Both A and R are true and R is the correct explanation of A	1
11	For example, when you are travelling with your friends in a car, when you are the reference point, your friends are at rest. If a person standing outside will see them, i.e., outside person is the reference point, then they are in motion. Hence, rest and motion are relative to each other.	2
12	This is because hot, sizzling food particles have high kinetic energy, which allows them to diffuse quickly in the air and travel a distance of several metres, as opposed to cold food particles, which have low kinetic energy and cannot travel a distance of several metres. **OR** In gases, the particles move randomly at high speed and they collide with each other and also with the walls of container. Thus, they exert more pressure on the walls of container than solids and liquids.	2
13.	Cell theory states that all living organisms are made of the cell which is either unicellular or multicellular. Cell serves as the functional unit of life as it involves in the formation of new cell and other cellular components that are essential for life processes.	2

<table>
<tr><td>14</td><td>Similarity between speed and velocity- Both have same SI units-m/s
Difference: Speed is the distance travelled by a body in a unit of time.
Velocity is direction-aware and it is the rate of change of position of an object. Also speed is a scalar value, while velocity is a vector.</td><td>1

2</td></tr>
<tr><td>15</td><td>Take 2-3 crystals of potassium permanganate. Put them in a beaker containing 100 Ml of water and dissolve them in second beaker. After dissolving, beaker yields a deep purple potassium permanganate solution. It is observed that even after 4-5 dilutions, colour of solution doesn't disappear indicating that these very small crystals of $KMnO_4$ change colour of water though the intensity of colour decreases at each dilution. This is because each crystal of potassium permanganate is made up of millions of small particles of $KMnO_4$ and each crystal breaks into smaller & smaller particles and impart colour to the water/solution.</td><td>3</td></tr>
<tr><td>16</td><td> 

½ marks for each labelling (6 labellings)

OR
1 mark for each point
<table>
<tr><th>Unicellular Organisms</th><th>Multicellular Organisms</th></tr>
<tr><td>Unicellular organisms are composed of a single cell</td><td>Multicellular organisms are composed of more than one cell</td></tr>
<tr><td>Simple body organization</td><td>Complex body organization</td></tr>
</table></td><td>3

3</td></tr>
</table>

A single cell carries out all necessary life processes	Multiple cells perform different functions	
Division of labour is at the organelle level	Division of labour is at cellular, tissue, organs and organ system level	