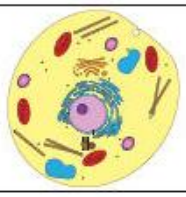
DELHI PUBLIC SCHOOL ,JAMMU
CYCLE TEST : 01
SESSION (2024-25)
ANSWER KEY
SET-1

CLASS: IX

SUBJECT: SCIENCE

Q.NO	ANSWERS	RUBRICS
1	(b) Vector	1
2	(a) m/s	1
3	(b) Remains same.	1
4	(a) Gases have a definite shape.	5
5	(b)Robert Hooke	1
6	(c) Both Schleiden and Schwann	1
7	(b)Cell wall	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	Yes, displacement is zero when a body after covering certain distance returns back to its original position	2
12	Gases are compressible because the intermolecular space is very large in gases, whereas liquids are not compressible because in liquids, the intermolecular space is less. OR There will be a weak force of attraction between the particles in the air. So we can move our hands on air, whereas the particles in solid plank are closely packed, and a strong force of attraction exists between them. Hence it needs a huge force to overcome the attraction which a karate expert can do.	2

13.	A cell is capable of carrying out all life processes, such as nutrition, excretion, respiration, etc. Hence it is called as the functional unit of life. The cell is the smallest unit of life and all the living beings are made up of cells. Hence a cell is called the structural unit of life.	2
14	Speed is the rate of change of distance and velocity is the rate of change of displacement Speed is a scalar quantity and velocity is a vector quantity	1 2
15	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.	3
16	**Animal Cell vs Plant Cell** **Plant Cell** / **Animal Cell**   Plant cell is large and has a fixed rectangular shape. / Animal cell is small and irregular or round in shape. Cell wall is present. / Cell wall is absent. The nucleus lies on one side of the cell. / The nucleus lies in the center. Mitochondria are present in fewer numbers. / Mitochondria are present in large numbers. Plastids are present. / Plastids are absent. Centrosomes are absent. / Centrosomes are present. One large central vacuole is present. / Many small vacuoles are present. OR Prokaryotes / Eukaryotes 1.They are unicellular. / 1.Could be either unicellular or multi-cellular. 2.Cell wall is generally present. / 2.Cell wall can be present or absent.	3

	3.Nucleus is absent, instead, they possess a nucleoid region in the cell. 4.DNA is Circular.	3.Nucleus is always present. 4.DNA is linear	