

1. Which of the following is not a type of motion?
 - a) Linear motion
 - b) Rotational motion
 - c) Stationary motion
 - d) Oscillatory motion
2. The SI unit of speed is:
 - a) meters per second (m/s)
 - b) kilometers per hour (km/h)
 - c) miles per hour (mph)
 - d) centimeters per second (cm/s)
3. Acceleration is defined as the rate of change of:
 - a) Velocity
 - b) Speed
 - c) Position
 - d) Distance
4. Which state of matter has definite volume but no definite shape?
 - a) Solid
 - b) Liquid
 - c) Gas
 - d) Plasma
5. The process of conversion of a gas into liquid is called:
 - a) Sublimation
 - b) Condensation
 - c) Evaporation
 - d) Melting
6. The boiling point of water at standard atmospheric pressure is:
 - a) 0°C
 - b) 100°C
 - c) 273 K
 - d) 373 K
7. What is the structural and functional unit of life?
 - A) Cell
 - B) Tissue
 - C) Organ
 - D) System
- 8) Which cell organelle is responsible for cellular respiration?
 - A) Nucleus
 - B) Ribosome
 - C) Mitochondria
 - D) Golgi apparatus
- 9) Which cell organelle is responsible for protein synthesis?
 - A) Nucleus
 - B) Ribosome

C) Lysosome

D) Vacuole

10. Which structure acts as the control center of the cell?

A) Cell membrane

B) Cytoplasm

C) Nucleus

D) Ribosome

Case study Based Questions(3 marks)

Riya and Priya start walking from the same point but in opposite directions. Riya walks at a speed of 2 m/s, while Priya walks at a speed of 3 m/s. Calculate:

1. The distance covered by each person after 10 seconds.

2. The displacement of each person after 10 seconds.

3. Whether their displacements are scalars or vectors."

Assertion: Sublimation is a physical change.

Reason: Sublimation involves the direct conversion of a solid into a gas without passing through the liquid state.

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Options:.

a) Both assertion and reason are true, and reason is the correct explanation of the assertion.

b) Both assertion and reason are true, but reason is not the correct explanation of the assertion.

c) Assertion is true, but reason is false.

d) Assertion is false, but reason is true.

Assertion: Mitochondria are called the powerhouse of the cell.

Reason: Mitochondria are responsible for generating energy in the form of ATP through cellular respiration.

Options:.

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A. Both Assertion and Reason are true, and Reason is the correct explanation of the Assertion.

B. Both Assertion and Reason are true, but Reason is not the correct explanation of the Assertion.

C. Assertion is true, but Reason is false.

D. Assertion is false, but Reason is true

True/false (2 marks)

a) Motion is defined as the change in position of an object with respect to time.

b) If the velocity of an object is constant, its acceleration must be zero.

One word type answers

1. What are the small spherical structures in the nucleus that contain RNA and protein? 1

2. Name the process of conversion of a liquid into gas at its boiling point throughout its mass. 1

3. Which state of matter has neither definite shape nor definite volume? 1

Short type answers (2+2)

1. Write difference between distance and displacement.

2. An object travels 16 m in 4 sec and then another 16 m in 2 sec. What is the average speed of the object?

3. Define sublimation. Give two examples of substances that undergo sublimation. 3

4. Describe the plasma membrane and mitochondria? 3

Long type answers (5+5)

1. Describe the plant cell with well labeled diagram?

2. Describe the different states of matter. Explain the properties and behavior of each state, and provide examples of substances

