

# Answer Sheet

## General Section

Q1: A body is said to be in motion when its position is changing continuously with time relative to an observer.

Q2: Distance is the length of the path traversed by an object in a given time interval, while displacement is the shortest distance between the initial and final positions.

Q3: The SI unit of distance or displacement is the meter (m).

Q4: Average speed is the distance covered by an object in unit time. It is calculated as  $\text{Total distance} / \text{Total time}$ .

Q5: Average velocity is the displacement of an object per unit time. It is calculated as  $\text{Total Displacement} / \text{Total time}$ .

Q6: Instantaneous speed is the speed of the car at any instant, which can be determined by the speedometer.

Q7: Velocity is the speed of an object in a specified direction.

Q8: The motion of a body is said to be uniform when its velocity is constant.

Q9: Acceleration is the rate of change of velocity.

Q10: The change in velocity can take place in three ways: 1. Speed changes with direction, 2. Direction of motion changes with speed, 3. Both speed and direction change.