**ARMY GOODWILL PUBLIC SCHOOL RAJOURI**

 **WORKSHEET/ HOLIDAY HOMEWORK**

**CLASS -IX**  **SUB- PHYSICS**  **MOTION**

**MULTIPLE CHOICE QUESTIONS**
**Question 1. A worker covers a distance of 40 km from his house to his place of work, and 10 km towards his house back. Then the displacement covered by the worker in the whole trip is**

(a) zero km
(b) 10 km
(c) 30 km
(d) 50 km

**Question 2. Rate of change of displacement is called**

(a) Speed
(b) Deceleration
(c) Acceleration
(d) Velocity

**Question 3. Acceleration is a vector quantity, which indicates that its value**

(a) Is always negative
(b) Is always positive
(c) Is zero
(d) Can be positive, negative or zero

**Question 4. SI Unit of measurement of acceleration is**

(a) m/s
(b) m/s2
(c) m/hr
(d) M

**Question 5.** Which of the following can sometimes be ‘zero’ for a moving body?

i. Average velocity

ii. Distance travelled

iii. Average speed

iv. Displacement

(a) Only (i)

(b) (i) and (ii)

(c) (i) and (iv)

(d) Only (iv)

**Question 6.** Which of the following statement is correct regarding velocity and speed of a moving body?

(a) Velocity of a moving body is always higher than its speed

(b) Speed of a moving body is always higher than its velocity

(c) Speed of a moving body is its velocity in a given direction

(d) Velocity of a moving body is its speed in a given direction

 **Important Questions of the chapter**

**1.**  (a)  Identify the kind of motion in the following cases:

       (i)    A car moving with constant speed turning around a curve.

       (ii)  An electron orbitting around nucleus.

       (b)  An artificial satellite is moving in a circular orbit of radius 36,000 km. Calculate its speed if it takes 24 hours to revolve around the earth.

**2.**  (a)  Define average speed.

       (b)  A bus travels a distance of 120 km with a speed of 40 km/h and returns with a speed of 30 km/h. Calculate the average speed for the entire journey.

**3.**  Define uniform and non-uniform motion. Write one example for each.

**4.**  What does the odometer of an automobile measure?

**5.**  (a)  Differentiate between speed and velocity.

       (b)  When is a body said to have uniform velocity?

       (c)  How can we describe the position of an object?

       Illustrate with suitable example.

**6.**  Define acceleration and give its SI unit. When is acceleration of a body negative? Give two examples of situations in which acceleration of the body is negative.

**7.**  Distinguish between uniform motion and non, uniform motion.