CHAPTER-5 | Measurement of Length and Motion

QUIZ PART-04

1. Dropping an eraser from a height demonstrates which type of motion?
   A. Circular
   B. Linear
   C. Oscillatory
   D. Periodic (B)

Explanation : Objects falling straight down move along a straight line, which is linear motion.

2. Which statement characterizes circular motion?
   A. Moves to and fro about a fixed point
   B. Moves in a straight line without turning
   C. Changes direction continuously while keeping a fixed distance from the center
   D. Repeats after irregular intervals (C)

Explanation : In circular motion the path is a circle with constant radius and continuously changing direction.

3. Which example shows circular motion?
   A. March-past of students
   B. Merry-go-round
   C. Falling orange
   D. Pressed metal strip returning (B)

Explanation : A merry-go-round moves in a circle around a central point.

4. The movement of a child on a swing is best described as:
   A. Linear
   B. Circular
   C. Oscillatory
   D. Random (C)

Explanation : A swing moves back and forth about a fixed point, which is oscillatory motion.

5. Pressing and releasing a thin metal strip shows:
   A. Linear motion
   B. Oscillatory motion
   C. Circular motion
   D. No motion (B)

Explanation : The free end moves to and fro about a fixed point after being released.

6. Most free-fall and push-pull actions are:
   A. Circular
   B. Linear
   C. Oscillatory
   D. Only periodic (B)

Explanation : These actions typically involve motion along a straight line.

7. Which pair is identified as periodic motions?
   A. Linear and circular
   B. Circular and oscillatory
   C. Linear and oscillatory
   D. Only linear (B)

Explanation : Periodic motion repeats after fixed intervals; circular and oscillatory motions are given as examples.

8. In circular motion, the object continuously changes direction while maintaining:
   A. Increasing speed
   B. A fixed distance from the center
   C. Zero speed
   D. A variable center point (B)

Explanation : The radius remains constant while the direction keeps changing.

9. What best defines periodic motion?
   A. Movement in a straight line
   B. Motion that repeats after fixed intervals
   C. To and fro motion about a fixed point
   D. Motion that changes direction continuously (B)

Explanation : Periodic motion is regular and repeats in equal time intervals.

10. Which of these is an example of linear motion?
    A. Whirling an eraser tied to a thread
    B. Child on a swing
    C. March-past of students
    D. Merry-go-round (C)

Explanation : March-past involves movement along a straight path.