Chapter –5 | Measurement of Length and Motion

QUIZ-01

1. What is the SI unit of length?
   A. Foot B. Inch
   C. Metre D. Yard (B)
   Explanation : Each centimetre is divided into 10 equal parts; each part is 1 millimetre.
2. How many millimetres make one centimetre?
   A. 1 B. 10
   C. 100 D. 1000 (D)
   Explanation : Each centimetre is divided into 10 equal parts; each part is 1 millimetre.
3. Which instrument is suitable for measuring the girth of a tree?
   A. Metre scale
   B. Divider
   C. Flexible tape
   D. Ruler (C)
   Explanation : A flexible measuring tape can easily wrap around curved or circular objects like a tree trunk.
4. What is a reference point?
   A. A fixed measuring instrument
   B. A random object
   C. A fixed point to describe position
   D. The centre of motion (C)
   Explanation : A reference point is a fixed object or location used to describe the position of other objects.
5. What type of motion does a swing exhibit?
   A. Linear B. Circular
   C. Oscillatory D. Random (C)
   Explanation : A swing moves to and fro from a fixed point, which is an example of oscillatory motion.
6. What is linear motion?
   A. Motion in a circular path
   B. Motion to and fro
   C. Motion along a straight line
   D. Random movement (C)
   Explanation : When an object moves in a straight line, its motion is called linear motion.
7. How do visually challenged students measure length?
   A. Using audio devices
   B. Using voice assistants
   C. Using tactile scales
   D. Using thread (C)
   Explanation : They use measuring scales with raised markings that can be felt by touch
8. What type of motion does the tip of a moving fan blade exhibit?
   A. Linear B. Circular
   C. Oscillatory D. Random (B)
   Explanation : The tip of a fan blade moves in a circular path, hence it shows circular motion.
9. If the zero mark of a scale is broken, how should you measure?
   A. Ignore the damage
   B. Use estimation
   C. Start from another clear mark and subtract
   D. Use a different object (C)
   Explanation : Start from a visible mark (e.g., 1 cm) and subtract it from the final reading to get the correct length.
10. Which of the following motions is both periodic and oscillatory?
    A. A bus on the road
    B. A spinning top
    C. A swinging pendulum
    D. A person walking (C)
    Explanation : The motion of a pendulum repeats regularly and moves to and fro, making it periodic and oscillatory.