

1. Which device measures time using the shadow of an object?
 A. Water clock B. Hourglass
 C. Sundial
 D. Candle clock (C)

Explanation : A sundial tells time by observing the changing position of the shadow cast by sunlight.

2. What is the time taken by a pendulum to complete one full oscillation called?
 A. Frequency B. Time period
 C. Speed D. Duration (B)

Explanation : One oscillation means moving from the mean position to both extremes and back; the time taken is its time period.

3. Which factor affects the time period of a simple pendulum?
 A. Mass of the bob
 B. Colour of the bob
 C. Length of the string
 D. Shape of the bob (C)

Explanation : Only the length of the pendulum changes the time period; the mass of the bob does not.

4. What is the SI unit of time?
 A. Hour B. Minute
 C. Second D. Millisecond (C)

Explanation : The standard unit for measuring time in the SI system is the second.

5. Speed is calculated as:
 A. Time \times Distance
 B. Distance $-$ Time
 C. Time \div Distance
 D. Distance \div Time (D)

Explanation : Speed tells how much distance an object covers in one unit of time.

6. An object moving along a straight line at a constant speed shows:
 A. Circular motion
 B. Uniform linear motion
 C. Non-uniform motion
 D. Oscillatory motion (B)

Explanation : Uniform linear motion means equal distances in equal intervals of time.

7. Which instrument in vehicles measures the distance travelled?
 A. Thermometer B. Speedometer
 C. Odometer
 D. Barometer (C)

Explanation : An odometer records the total kilometres covered by a vehicle.

8. A clock that uses vibrations of a quartz crystal is called:
 A. Atomic clock
 B. Pendulum clock
 C. Quartz clock
 D. Digital timer (C)

Explanation : Quartz clocks use rapid vibrations of quartz to measure time.

9. A train covers unequal distances in equal time intervals. Its motion is:
 A. Periodic B. Non-uniform
 C. Uniform D. Circular (B)

Explanation : Unequal distances in equal times indicate non-uniform motion.

10. Which device measures shorter intervals of time by flowing sand?
 A. Water clock B. Candle clock
 C. Hourglass
 D. Pendulum (C)

Explanation : Hourglasses measure time by the flow of sand from one chamber to another.