Class 6 Science: Motion and Measurement of Distances

Section 1: Multiple Choice Questions (MCQs)

1. What is the SI unit of length?
a) Kilogram **b) Metre** c) Second d) Litre

2. Which instrument is used to measure length?
a) Thermometer b) Stopwatch **c) Ruler** d) Barometer

3. What is the SI unit of time?
a) Hour b) Minute **c) Second** d) Day

4. Which type of motion is shown by a pendulum?
a) Circular b) Rectilinear **c) Oscillatory** d) Random

5. Which device is used to measure time?
a) Scale **b) Stopwatch** c) Compass d) Thermometer

6. Motion in a straight line is called:
a) Circular **b) Linear** c) Oscillatory d) Periodic

7. Why are standard units important?
a) For fun **b) For uniform measurement** c) Decoration d) Speed

8. Which motion is seen in a clock's hands?
a) Linear **b) Circular** c) Random d) Oscillatory

9. What is a reference point used for?
a) Measure mass **b) Describe position** c) Measure temperature d) Speed

10. Which is NOT a unit of length?
a) Metre b) Centimetre **c) Kilogram** d) Millimetre

Section 2: One Word Questions

Question	Answer

SI unit of length	Metre
SI unit of time	Second
Device to measure time	Stopwatch
Motion in a straight line	Linear
Motion of a pendulum	Oscillatory
Motion of clock hands	Circular
Smallest unit on a ruler	Millimetre
Standard unit symbol of metre	m
Distance between two points	Length
Example of periodic motion	Pendulum
Reference used to describe position	Point
Tool to draw a straight line	Scale
Motion that repeats	Periodic
Unit smaller than centimetre	Millimetre
Unit larger than metre	Kilometre

Section 3: Short Questions with Answers

1. What is motion?

Motion is the change in position of an object with time.

2. What is a standard unit?

A standard unit is a fixed quantity used as a basis for measurement.

3. Name the SI unit of length.

Metre (m).

4. Why do we need standard units?

To ensure uniformity and accuracy in measurement.

5. What is periodic motion?
Motion that repeats itself at regular intervals.

6. Give an example of circular motion.
Motion of the hands of a clock.

7. What is oscillatory motion?
Motion in which an object moves to and fro about a fixed position.

8. Name a device used to measure time.
Stopwatch.

9. What is rectilinear motion?
Motion in a straight line.

10. What is the smallest unit on a scale?
Millimetre (mm).

11. What is a reference point?
A point used to describe the position of an object.

12. Why should a scale be placed correctly while measuring?
To avoid measurement errors.

13. What is the SI unit of time?
Second (s).

14. What is distance?
The length between two points.

15. Give an example of periodic motion.
Motion of a pendulum.

Section 4: Long Questions with Answers

1. What is motion? Explain with examples.
Motion is the change in position of an object with time. For example, a moving car, a flying bird, or a running person are all in motion.

2. What are the different types of motion?
There are several types of motion such as rectilinear motion (straight line), circular motion (along a circular path), and periodic motion (repeats after equal intervals like a pendulum).

3. What is distance? How is it measured?

Distance is the total path covered by an object. It is measured using units like meters (m) or kilometers (km). Measuring tools include rulers, meter scales, and measuring tapes.

4. What is speed? Write its formula.

Speed is the distance covered per unit time.

Formula: $Speed = Distance / Time$

5. Explain uniform and non-uniform motion.

Uniform motion is when an object covers equal distances in equal intervals of time. Non-uniform motion is when it covers unequal distances in equal intervals.

6. What instruments are used to measure time?

Time is measured using clocks and watches. Stopwatches are used for accurate measurements.

7. Explain periodic motion with examples.

Periodic motion is motion that repeats itself after fixed intervals of time, like the motion of a swing or pendulum.

8. Why is measurement important in motion?

Measurement helps us understand how far and how fast objects move. It ensures accuracy in scientific studies.