

G.Sc assignment for class 7

Chapter: Motion

Motion is a change in position of an object with respect to time. When walking, running or cycling or when a bird is flying, there is motion involved. Various objects have different types of motion which could be classified as follows:

1. **Translatory motion**: Motion along a straight line.
2. **Rotatory motion**: Motion along a fixed axis.
3. **Circular motion**: Motion along a circular path
4. **Oscillatory motion**: To and fro motion of a body from its rest position.
5. **Vibratory motion**: A type of oscillatory motion in which a part of the body always remains fixed and the rest part moves to and fro about its mean position.
6. **Periodic motion**: A motion which gets repeated after a regular interval of time.
7. **Non-periodic motion**: A motion which does not repeat itself after a regular interval of time.

Also, when a body moves, the distance covered by a body in one second is called the speed of the body. Its SI unit is metre per second (m/s)

$$\text{Speed} = \text{distance travelled} / \text{Time taken}$$

For a body moving in uniform motion,

$$\text{Average speed} = \text{Total distance travelled by the body} / \text{Total time of journey}$$

On the basis of the above information,

Q1. Give five examples of each type of motion and present in a tabular form.

Q2. A car covers a distance of 160km between two cities in 4 h. What is the average speed of the car?

Q3. A boy travels with an average speed of 10 m/s for 20 min. How much distance does he travel?