



Chapter 1: Motion

MM: 24

Time Allowed: 60 minutes.

[All questions carry 2 marks]

1. A girl is running in a circular field of radius 10 cm. What will be her displacement when she travels three and half rounds around the circle?
2. What is oscillatory motion? Give an example.
3. A bus starts from rest and covers 50 m in 20 s. Calculate the average velocity of the bus.
4. An athlete completes two rounds of a circular track of radius 50 m by running and comes back to his initial position. Calculate the distance travelled and displacement of the athlete.
5. Define the terms given below:
 - a. Rest
 - b. Displacement
 - c. Velocity
 - d. Non-uniform motion
6. How can you differentiate between distance and displacement?
7. How can one say that the tree on the earth is in a state of rest and in a state of motion at the same time?
8. How can you say that speed and velocity are different even though their units are the same?
9. If a distance covered by a body moving in a circular path of radius (r) is equal to $2\pi r$, find its displacement.
10. What is the speed of a body if it covers a distance of 20 m in 4 seconds?
11. A car moving on a straight road with the speed of 26 m/s. Find the distance covered by the car in 5 minutes.
12. A particle is moving in a circular path of radius 7 cm. Find the distance and displacement covered after the completion of a half circle.
