

Class 9 Physics Chapter 8 Motion MCQs

1. What would be the displacement of a particle moving in a circular path of radius r after a displacement of half a circle?

- (a) $2\pi r$
- (b) πr
- (c) $2r$
- (d) Zero

2. The path length travelled by a body in a given time interval is known as ____.

- (a) distance
- (b) velocity
- (c) acceleration
- (d) moment

3. Which of the following situations is true and possible?

- (a) If the velocity of a body is zero, then the acceleration can be non-zero
- (b) A body moving at a constant velocity can have acceleration
- (c) The magnitude of distance and displacement are equal in a circular motion
- (d) All of the Above

4. Velocity is defined as ____ per time.

- (a) distance
- (b) displacement
- (c) power
- (d) acceleration

5. A body moving in a straight line has a uniform motion if it travels ____ distance in equal time intervals.

- (a) equal
- (b) unequal

6. Suppose the boy is moving with a uniform velocity of 10 m/s on a merry-go-round ride. Which of the following is true of the given scenario?

- (a) The boy is at rest
- (b) The boy is moving with no acceleration
- (c) The boy is moving with accelerated motion
- (d) The boy is moving with uniform velocity

7. What does the slope of the distance-time graph give?

- (a) speed
- (b) velocity
- (c) acceleration
- (d) displacement

8. What does the slope of the velocity-time graph give?

- (a) speed
- (b) velocity
- (c) acceleration
- (d) displacement

9. Which of the following is true of a free-falling body?

- (a) It moves with non-uniform motion
- (b) It has zero velocity
- (c) It has constant non-zero acceleration
- (d) It has non-uniform acceleration

10. The physical quantity that has both magnitude and direction is known as

- (a) vectors
- (b) scalars
- (c) Both(a) and (b)
- (d) Neither (a) or (b)

***** Answer Key *****

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|---------|---------|---------|---------|----------|
| 1 - (c) | 2 - (a) | 3 - (a) | 4 - (b) | 5 - (a) |
| 6 - (c) | 7 - (a) | 8 - (c) | 9 - (c) | 10 - (a) |