# Class - XI Physics
# Chapter -3
# Motion in a Straight Line
# Module - 1 Worksheet

**Each question carries two marks**

1) How rest and motion are relative to each other. Explain with an example.

2) Write down types of motion of a body.

3) Explain motion in one, two and three dimension with example.

4) Define scalar and vector quantities with example. Distinguish between scalar and vector quantities.

5) What is meant by point mass object. Define frame of reference.

6) Read each statement below carefully and state with reasons and examples, if it is true or false ;
   A particle in one-dimensional motion
   (a) with zero speed at an instant may have non-zero acceleration at that instant
   (b) with zero speed may have non-zero velocity,
   (c) with constant speed must have zero acceleration,
   (d) with positive value of acceleration must be speeding up.

7) Acceleration is called as rate of change of velocity. Suppose we call rate of change of acceleration SLAP, what is the unit of SLAP?

8) A body covers half of it's journey with a speed of 40 m/s and other half with a speed of 60 m/s. What is the average speed during the whole journey ?

9) A car moving at a speed of 10 m/s is accelerated at the rate of 2 m/s$^2$. Find out the velocity after 6 sec.

10) The distance covered by a body is found to be directly proportional to the square of time. Is the body moving with uniform velocity or uniform acceleration ? If the distance travelled be directly proportional to time.

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