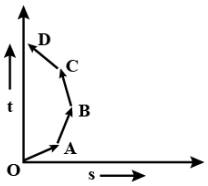
CBSE

MOTION IN A STRAIGHT LINE WS 2

Class 11 - Physics

1. Which of the following options is correct for the object having a straight line motion represented by the following graph? **[1]**



a) The object moves with constantly increasing velocity from O to A and then it moves with constant velocity.

b) The graph shown is impossible.

c) Velocity of the object increases uniformly.

d) Average velocity is zero.

2. The coordinates of object with respect to a frame of reference at t = 0 are (-1, 0, 3). If t = 5 s, its coordinates are (-1, 0, 4), then the object is in **[1]**

a) motion along x-axis

b) motion along z-axis

c) rest position between t = 0 s and t = 5 s

d) motion along y-axis

3. **Assertion:** A body, whatever its motion, is always at rest in a frame of reference which is fixed to the body itself. **[1]**

Reason: The relative velocity of a body with respect to itself is zero.

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

4. **Fill in the blanks:** **[1]**

(a) The earth is a _____ frame of reference. **[1]**

5. Can an object be at rest as well as in motion at the same time? **[1]**

6. Under what condition can an object in motion be considered a point object? **[1]**