CBSE TEST PAPER-01

CLASS - XI PHYSICS (Kinematics)

Topic: - Motion in Straight Line

1. Under what condition is the relation $s = vt$ correct? [1]

2. Two balls of different masses are thrown vertically upward with same initial speed. Which one will rise to a greater height? [1]

3. What is the relative velocity of two bodies having equal velocities? [1]

4. Write the characteristics of displacement? [2]

5. Draw displacement time graph for uniformly accelerated motion. What is its shape? [2]

6. Sameer went on his bike from Delhi to Gurgaon at a speed of 60km/hr and came back at a speed of 40km/hr. what is his average speed for entire journey. [2]

7. Define $v = v + at$ from velocity time graph. [3]

8. A particle is moving along a straight line and its position is given by the relation [3]

   $x = \left(t^3 - 6t^2 - 15t + 40\right) m$

   Find (a) The time at which velocity is zero.

   (b) Position and displacement of the particle at that point.

   (c) Acceleration for the particle at that line.

9. Velocity time graph of a moving particle is shown. Find the displacement (1) 0 – 4 s (2) 0 – 8 (3) 0 12 s from the graph. Also write the differences between distance and displacement. [5]