

Physics Test Paper

Class XI

Chapter : Motion in Straight Line

MM:20

TIME:1H

MCQs

1. If a v-t graph is not curved, its acceleration may be: [1]
a) 0 b) constant c) both a & b d) None.
2. The displacement under free fall is in ratio of [1]
a) odd numbers b) even numbers c) natural numbers d) whole numbers
3. Is distance \geq displacement. [1]
a) True b) False c) in a case d) none

ASSERTION-REASON

4. A: position time curve can be parabolic. [1]
R: position is quadratic in time.
5. A: displacement can be determined from v-t curve. [1]
R: Area of a-t curve gives distance.
6. Find the expression of 2nd and 3rd equations of motion by calculus method. [3]
7. If (a) $x = 2t^2 + t$; find v and a at 2 s. (b) if $a = 5t$; find v and x at 1 s. [3]
8. What is free fall? draw a-t, v-t and x-t graph for it. [3]
9. A woman goes to office 10 Kms apart with speed 10km/h at 9 AM. She stayed there up to 5 PM. She returned back with 20 Km/h. draw x-t and v-t graph for it. Also find acceleration in going and return. [3]
10. If $x = 5t^3 + 1$ then find avg velocity and avg acceleration from 1 to 3 s, also draw x-t, v-t and a-t curve for it. [3]