



WEEKLY TEST CHAPTER – MOTION IN STRAIGHT LINE

CLASS: XI
SUBJECT: PHYSICS

FM: 20
TIME: 45 MIN

(1 MARK)

1. Displacement of an object after completing one circular motion.
(a) $2\pi r$ (b) πr (c) 0 (d) none
2. Unit of acceleration
(A) m (B) m/s (c) m/s^2 (d) none
3. A car covers equal distance in equal time is an example of
(A) uniform motion (b) non uniform motion (c) constant motion
(d) rest
4. Slope of distance time graph gives
a. speed b. velocity c. acceleration d. none
5. A car covers 50km in 2 hr and another 100km in 3 hr. find its average speed.
(a) 30km/hr (b) 8.3 m/s (c) both a and b (d) none
6. What velocity? Write its unit and dimension. (2 MARKS)
7. Prove that for a constant speed motion, acceleration is zero. (2 MARKS)
8. Displacement of an object is given as $s = 3t^2 - 3t + 9$ m. find velocity at $t = 2$ sec. (3MARKS)
9. If position of an object $s = t^3 - 6t^2 + 10$ m. find time and velocity where acceleration is zero. (3 MARKS)
10. (5 MARKS)
 - (a) derive $v = u + at$ from velocity – time graph.
 - (b) a car moving at 72 km/hr covers certain distance before coming to rest after applying brake takes 2 sec. find the deceleration and distance covered.



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