ARJUNA (NEET)

Kinematics

DPP-03

1. Object is moving such that its velocity and acceleration is in opposite direction then
(A) speed may constant
(B) speed may increasing
(C) speed must be decreasing
(D) speed may be increasing or decreasing

2. Which of the following option is correct :
(A) Velocity of object increasing and acceleration may decreasing
(B) Velocity of object decreasing and acceleration may increasing
(C) When acceleration may be non-zero when velocity of object is zero
(D) All of these

3. Object is moving with constant velocity then which of the following option is correct
(A) Acceleration may be increases
(B) Acceleration is zero
(C) Acceleration is decreasing
(D) Acceleration is non-zero

4. Equation of motion is applicable for :
(A) all type of motion
(B) accelerated motion
(C) uniformly accelerated motion
(D) non-uniform acceleration

5. Which of the following option is correct for acceleration
(A) $\frac{d\vec{V}}{dt}$ (B) $\frac{d^2\vec{x}}{dt^2}$
(C) $\vec{V}\frac{d\vec{V}}{dx}$ (D) all of these

6. Which of the following statement is correct for retardation
(A) –ve acceleration is called retardation
(B) may be +ve and –ve acceleration is called acceleration
(C) acceleration which is in the direction of motion
(D) acceleration which is parallel to the velocity.

7. Which of the following is correct relation :-
(a) If V = cos t^n then acceleration is increasing
(B) If velocity is constant then acceleration must be zero
(C) If acceleration is constant then velocity must be constant
(D) If acceleration is zero, then velocity may increasing

8. In which option acceleration of object is constant
(A) $x = t^3 + 2t$ (B) $v = t^2 + 4t$
(C) $a = \alpha\, t^{3/2}$ (D) $V = \sqrt{2x+4}$

9. In which of acceleration of object is constant
(A) $a = kx$ (B) $v = 4\sin(2t)$
(C) $v = e^{2t}$ (D) $v = 4\,t$

10. In uniform motion :-
(A) Velocity must be constant
(B) Speed may be variable
(C) Speed must be constant
(D) Acceleration may be non-zero

11. Which of the following option is correct for magnitude of acceleration

(A) $\frac{d\vec{V}}{dt}$ (B) $\frac{d|\vec{V}|}{dt}$

(C) $\left|\frac{d\vec{V}}{dt}\right|$ (D) none of these

ANSWERS

1. **(C)**
2. **(D)**
3. **(B)**
4. **(C)**
5. **(D)**
6. **(B)**
7. **(B)**
8. **(D)**
9. **(D)**
10. **(A)**
11. **(C)**

Note - If you have any query/issue

Mail us at support@physicswallah.org