



#### **DPP - 4**

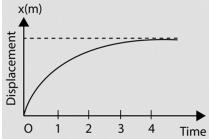
Video Solution on Website:-

https://physicsaholics.com/home/courseDetails/41

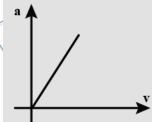
Video Solution on YouTube:-

https://youtu.be/FwH4aA9xdBo

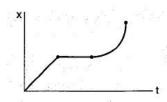
Q 1. The displacement of a particle as a function of time is shown in figure. The figure indicates that:



- (a) the particle starts with a certain velocity but the motion is retarded and finally the particle stops.
- (b) the velocity of the particle is constant throughout.
- (c) the acceleration of the particle is constant throughout.
- (d) the particle starts with constant velocity, the motion is accelerated and finally the particle moves with another constant velocity.
- Q 2. The acceleration-velocity graph of a particle moving in a straight line is shown in figure. Then the slope of the velocity-displacement graph:



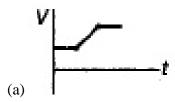
- (a) Increases linearly
- (b) Decreases linearly
- (c) Is constant
- (d) Increases parabolically
- Q 3. A particle moving along the x-axis. Its position x as a function of time t recorded as shown in the figure . Identify which of the following graphs of velocity v as a function of time t is equivalent to the above graph?

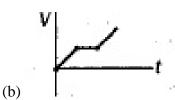


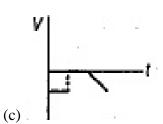


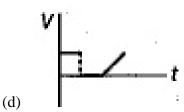
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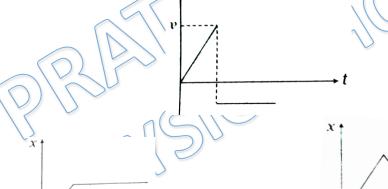




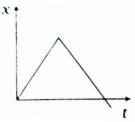


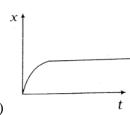
- Q 4. The displacement-time graph of a freely falling body is:
  - (a) straight line passing through the origin
  - (b) straight line intersecting x and y axes
  - (c) parabola
  - (d) hyperbola

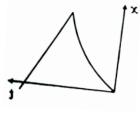
Q 5. The velocity-time graph for a particle moving along X-axis is shown in the figure. The corresponding displacement-time graph is correctly shown by:











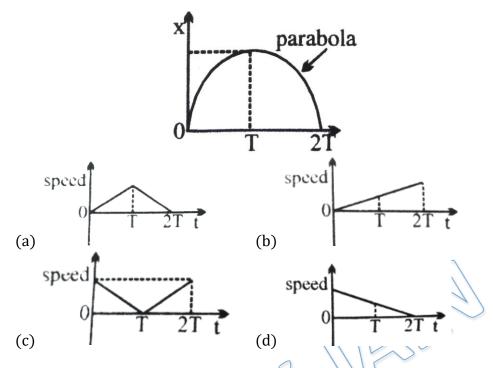
(b)

(c) t (d) Q 6. The x-t graph of particle moving along a straight line is shown in figure:

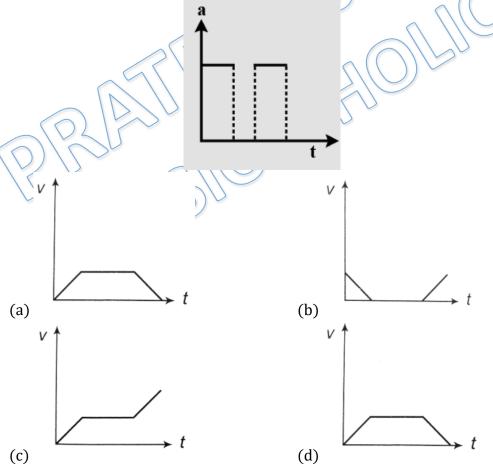


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Q 7. The x-t graph of particle moving along a straight line is shown in figure:



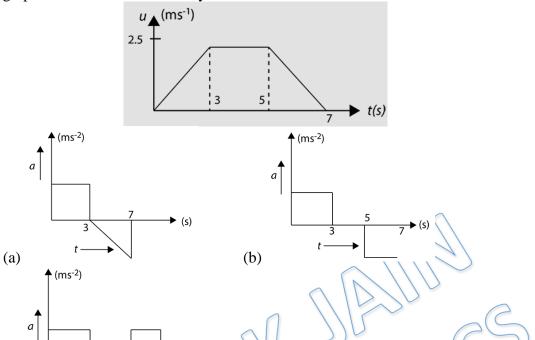


(c)

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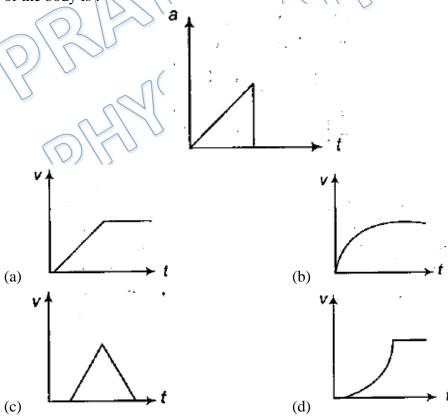


Q 8. Velocity (u)-time (t) graph of a body is as shown in the figure. acceleration (a)-time (t) graph of the motion of the body is:



Q 9. The acceleration-time graph of a body is shown. The most probable velocity-time graph of the body is:

(d) none of these

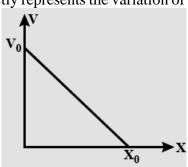


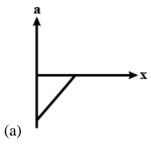


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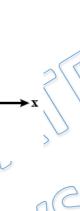


Q 10. The given graph shows the variation of velocity With displacement. Which one of the graph given below correctly represents the variation of acceleration With displacement?

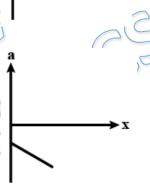




(c)







### **Answer Key**

Q.1) a	Q.2) c	Q.3) d	Q.4) c	Q.5) d
Q.6) c	Q.7) c	Q.8) b	Q.9) d	Q.10) a