

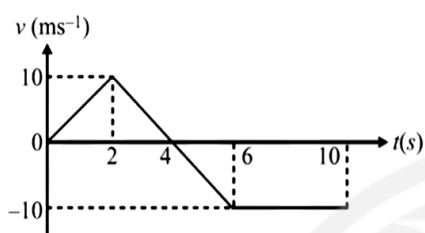
## Yakeen NEET 2.0 2026

Physics By Saleem Sir

## Motion in a Straight Line

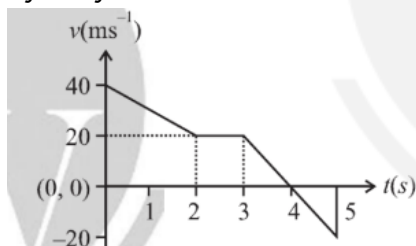
DPP: 7

- Q1** The velocity ( $v$ ) versus time ( $t$ ) graph of a particle moving along a straight line is as shown in the given figure. During time interval  $t = 0$  to  $t = 6$  s, the magnitude of displacement and the distance travelled are in the ratio of



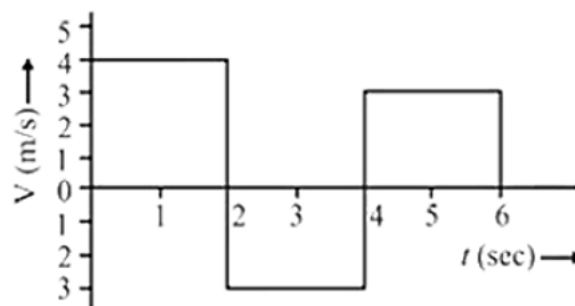
- (A)  $\frac{1}{2}$   
(B)  $\frac{1}{3}$   
(C)  $\frac{1}{4}$   
(D)  $\frac{1}{5}$

- Q2** In the given  $v - t$  graph the distance travelled by body in 5 seconds will be



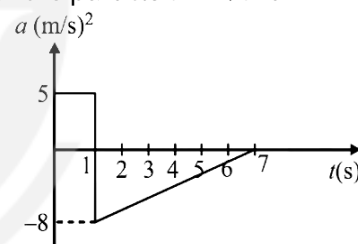
- (A) 100 m  
(B) 80 m  
(C) 40 m  
(D) 20 m

- Q3** The velocity-time graph of a body moving in a straight line is shown in the figure. The displacement and distance travelled by the body in 6 sec are respectively



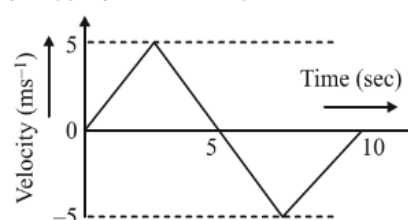
- (A)  $8m, 16m$   
(B)  $16m, 8m$   
(C)  $8m, 20m$   
(D)  $8m, 8m$

- Q4** A particle moves with an initial velocity  $v_0 = 5$  m/s in a straight line. If its acceleration  $a$  varies with time  $t$  as shown in  $a - t$  graph, then velocity of the particle  $t = 7$  s is



- (A) 10 m/s  
(B) -10 m/s  
(C) -14 m/s  
(D) 24 m/s

- Q5** The  $v-t$  plot of a moving object is shown in the figure. The average velocity of the object during the first 10 seconds is



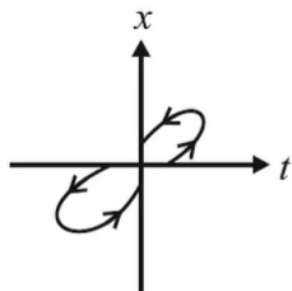
- (A) 0  
(B) 2.5 m/s



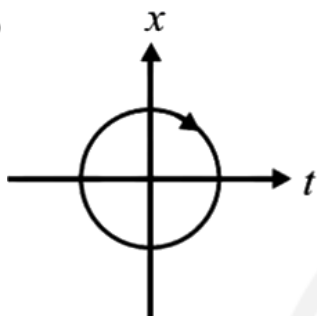
- (C) 5 m/s  
(D) 2 m/s

**Q6** Which of the following graphs cannot possibly represent one dimensional motion of a particle?

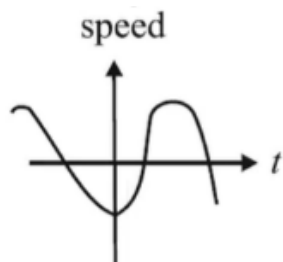
(A)



(B)

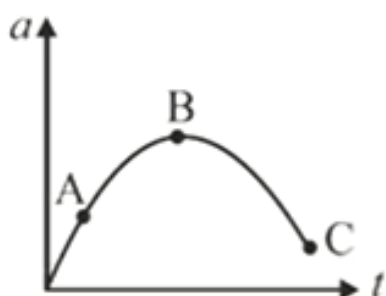


(C)



(D) All of these

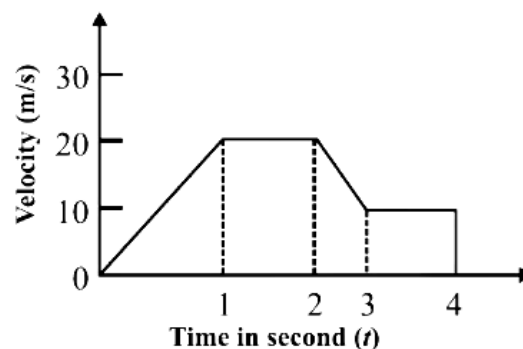
**Q7** Acceleration ( $a$ ) versus time ( $t$ ) graph of a particle started from rest is as shown in figure. Which point velocity of the particle is maximum?



- (A) A  
(B) B  
(C) C  
(D) All of these

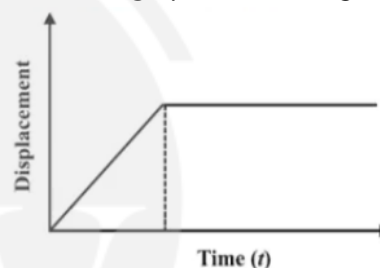
**Q8**

The variation of velocity of a particle with time moving along a straight line is illustrated in the following figure. The distance travelled by the particle in four seconds is



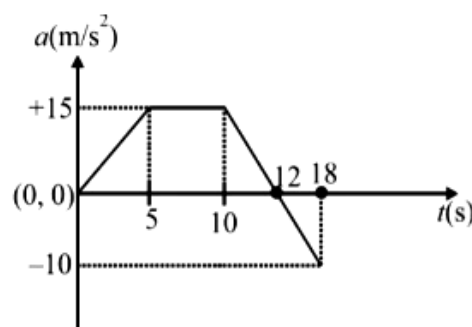
- (A) 60 m  
(B) 55 m  
(C) 25 m  
(D) 30 m

**Q9** The  $x - t$  graph shown in figure represents



- (A) Constant velocity  
(B) Velocity of the body is continuously changing  
(C) Instantaneous velocity  
(D) The body travels with constant speed upto time  $t_1$  and then stops

**Q10** A particle starts from rest and is acted upon by a variable acceleration as shown. Velocity of the particle maximum at time  $t$ , is equal to

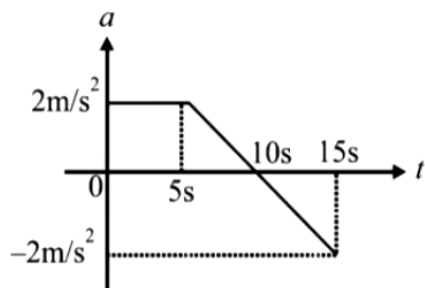


- (A) 5 s  
(B) 10 s



- (C) 12 s  
(D) 18 s

**Q11** Acceleration ( $a$ ) versus time ( $t$ ) graph of a particle moving along  $x$ -axis is as shown in the figure. Change in velocity of the body in the interval 0 to 15 s is



- (A) 20 m/s  
(B) 15 m/s  
(C) 5 m/s  
(D) 10 m/s



## Answer Key

Q1 (B)

Q2 (A)

Q3 (C)

Q4 (C)

Q5 (A)

Q6 (D)

Q7 (C)

Q8 (B)

Q9 (D)

Q10 (C)

Q11 (D)



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