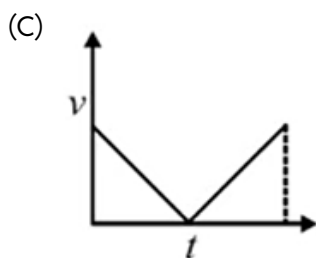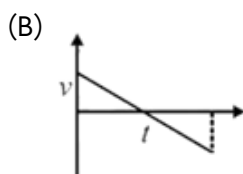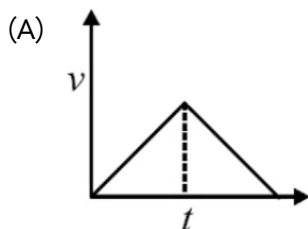Q1 Figure shows the displacement of a particle moving along x-axis as a function of time. The acceleration of the particle is zero in the region: select correct alternative
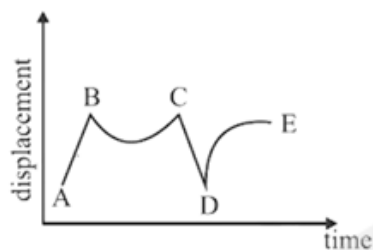
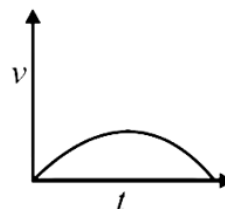

(a)	AB	(b)	BC
(c)	CD	(d)	DE

(A) a, b

(B) a, c

(C) b, d

(D) c, d

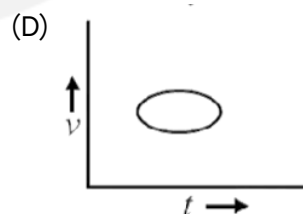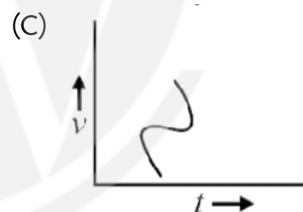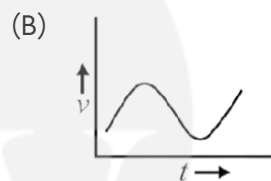**Q2** A body is projected vertically upward from the surface of the earth, its velocity-time graph is
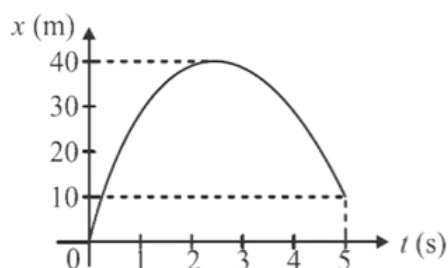
(A)

(B)

(C)

(D)

Q3 Which of the following velocity-time graph shows a realistic situation for a body in motion?
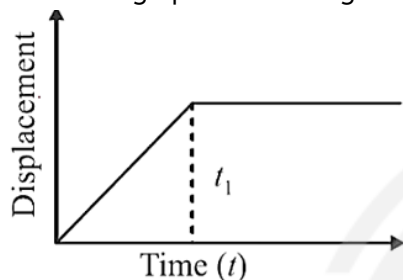
(A)

(B)

(C)

(D)
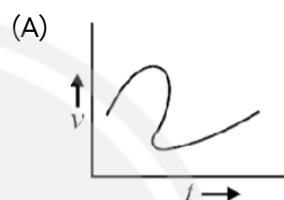
Q4 Displacement-time $(x - t)$ graph of a particle moving along a straight-line path is shown in figure. Average speed of particle in the time interval 0 to 5 second is
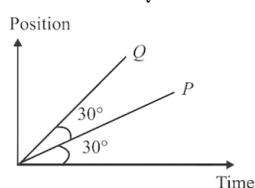
(A) 2 m/s
(B) 16 m/s
(C) 12 m/s
(D) 14 m/s

Q5 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

Q6 The position-time graph of two particles P and Q are as shown in figure. The ratio of their velocities $\frac{V_P}{V_Q}$ is,
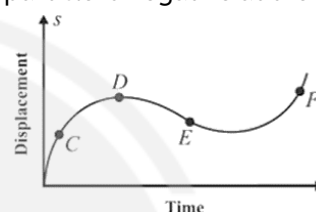

(A) $1 : 3$
(B) $\sqrt{3} : 1$
(C) $3 : 1$
(D) $1 : \sqrt{3}$

Q7 From the velocity-time graph of a particle moving in a straight line. The ratio of average velocity for interval 3 s and instantaneous velocity at 3 s.
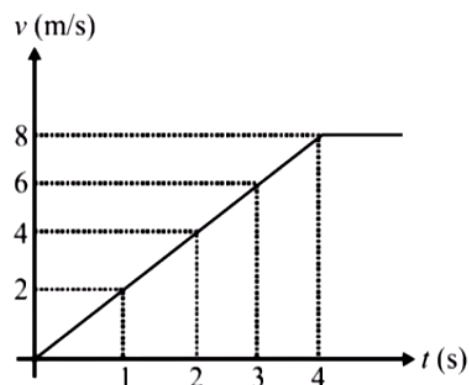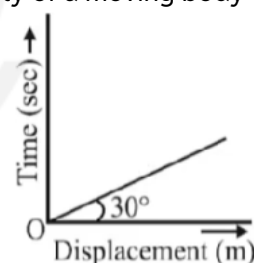

(A) $1 : 1$ (B) $1 : 2$
(C) $7 : 3$ (D) $3 : 2$

Q8 The displacement-time graph of moving particle is shown below The instantaneous velocity of the particle is negative at the point
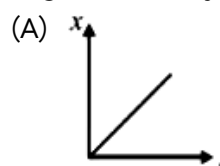

(A) D   (B) F
(C) C   (D) E

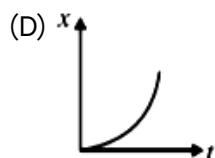**Q9** From the following displacement-time graph find out the velocity of a moving body
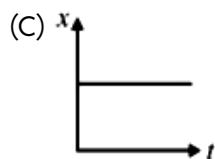

(A) $\frac{1}{\sqrt{3}} \text{ m/s}$
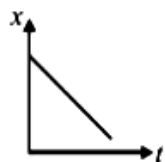(B) 3 m/s
(C) $\sqrt{3} \text{ m/s}$
(D) $1/3 \text{ m/s}$

Q10 Which of the following graphs represents the position-time graph of a particle moving with negative velocity?
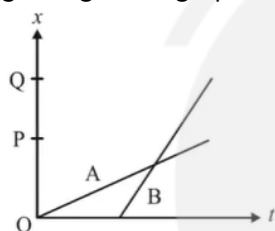
(A)

(B)

(C)

(D)

Q11 The position-time $(x - t)$ graphs for two children A and B returning from their school O to their homes P and Q respectively are as shown in the figure. Choose the **incorrect** statement regarding these graphs

(A) A lives closer to the school than B.

(B) A starts from the school earlier than B.

(C) A walks faster than B.

(D) A and B reach home at the same time.

Answer Key

Q1	(B)		Q7	(B)
Q2	(B)		Q8	(D)
Q3	(B)		Q9	(C)
Q4	(D)		Q10	(B)
Q5	(D)		Q11	(C)
Q6	(A)			

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