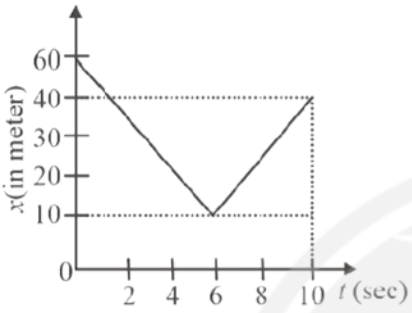
Yakeen NEET 2.0 2026

Physics By Saleem Sir

DPP: 4

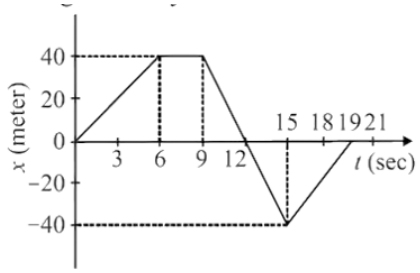
Motion in a Straight Line

Q1 The figure shows the position time graph of a particle moving on a straight line path. What is the magnitude of average velocity of the particle over 10 second?



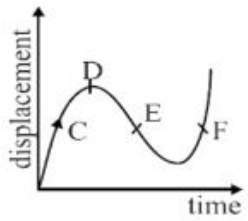
(A) $2\ \mathrm{m/s}$
(B) $4\ \mathrm{m/s}$
(C) $6\ \mathrm{m/s}$
(D) $8\ \mathrm{m/s}$

Q2 A person walks along an east-west street and a graph of his displacement from home is shown in figure. His average velocity for the whole time interval is:



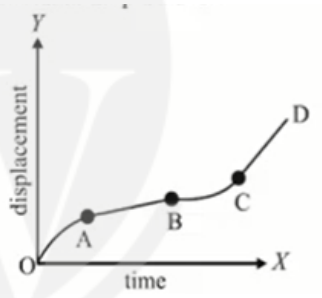
(A) 0
(B) $23\ \mathrm{m/s}$
(C) $8.4\ \mathrm{m/s}$
(D) None of these

Q3 The displacement-time graph of a moving particle is shown. The instantaneous velocity of the particle is negative at the point:



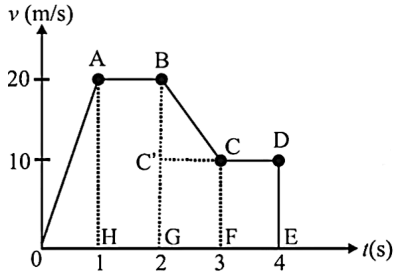
(A) D
(B) F
(C) C
(D) E

Q4 The graph between the displacement x and time t for a particle moving in a straight line is shown in figure. During the interval OA, AB, BC and CD, the acceleration of the particle is:



	OA	AB	BC	CD
(A)	+	0	+	+
(B)	−	0	+	0
(C)	+	0	−	+
(D)	−	0	−	0

Q5 The variation of velocity of a particle moving along a straight line is illustrated in the figure. The distance travelled by the particle in $4 second$ is:



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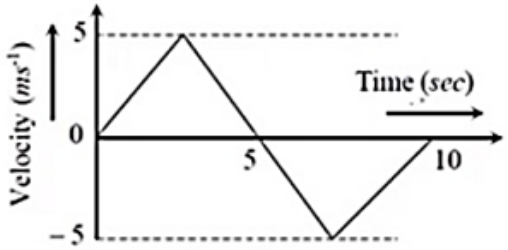
(A) $60\ \mathrm{m}$
(B) $25\ \mathrm{m}$
(C) $55\ \mathrm{m}$
(D) $30\ \mathrm{m}$

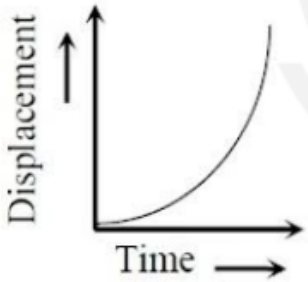
Q6 The $v - t$ plot of a moving object is shown in the figure. The average velocity of the object during the first 10 seconds is



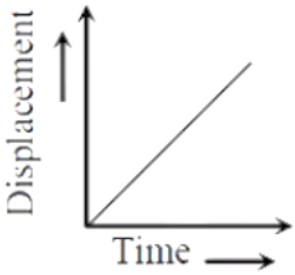
(A) 0
(B) $2.5\ \mathrm{ms}^{-1}$
(C) $5ms^{-1}$
(D) $2\ \mathrm{ms}^{-1}$

Q7 A car decelerates at a constant rate during a period commencing at $t = 0$. Which of the displacement time graphs represents the displacement of the car

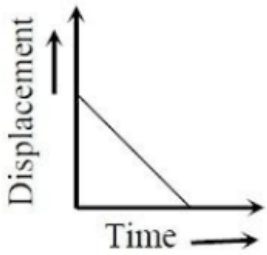
(A)



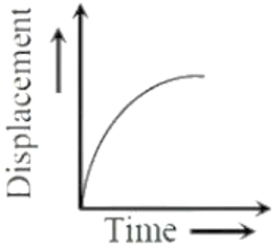
(B)



(C)

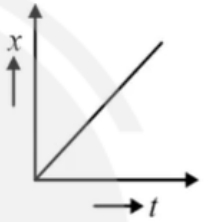


(D)

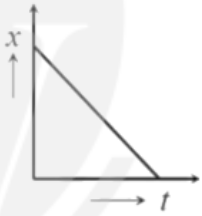


Q8 Which of the following can not be the distance time graph?

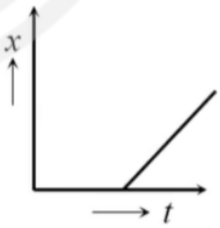
(A)



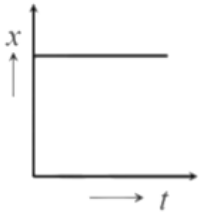
(B)



(C)



(D)



Q9 A car starts from rest and accelerates unif
by for 4 seconds and then moves with unif
velocity which of the x - t graph represent th
motion of the car?

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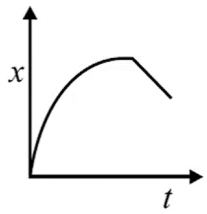
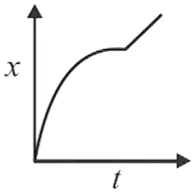
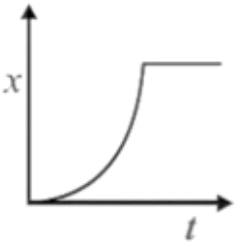
(A)



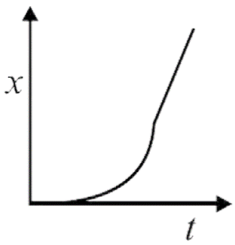
(B)



(C)



(D)



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Answer Key

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

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