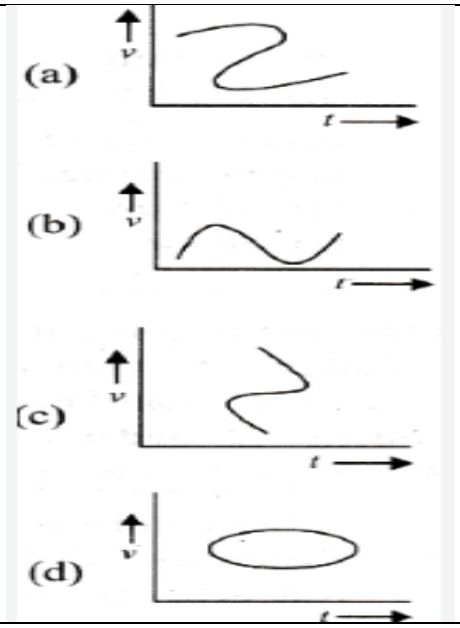
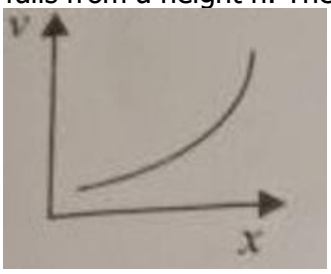
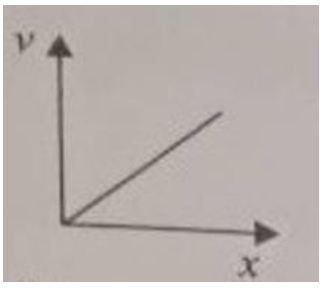
INDIAN SCHOOL NIZWA - WORKSHEET

	PHYSICS	
	CH: 3 MOTION IN A STRAIGHT LINE	
Name:	Date:_____	Class:

1.	A person travels along a straight road for the first half time with a velocity V_1 and the second half time with a velocity V_2. Then the average velocity is given by A. $(V_1 + V_2)/2$ B. $1/v_1 + 1/V_2$ C. $\sqrt{V_1 V_2}$ D. $\frac{V_1}{V_2}$	1
2.	A body covers first one third of a distance with a velocity 20m/s and second one third with a velocity of 30m/s and last one third with a velocity of 40m/s. the average velocity is nearly A. 28m/s B. 38m/s C. 18m/s D. 8m/s	1
3.	The position x of particle varies with time t as $X = at^2 - bt^3$. The acceleration at a time t of the particle will be zero, where t is equal to A. 2a/3b B. a/b **C. a/3b** D. zero	1
4.	A body covered a distance of 5m along a semicircular path. The ratio of distance to displacement is A. 11:7 B. 12:5 C. 8:3 D. 7:5 E.	1
5.	Which of the following velocity time graphs shows a realistic situation for a body in motion?	1

		
6.	A particle moves along x axis in such a way that its coordinate x varies with time t according to the expression $x = 2-5t+6t^2$. Its initial velocity is A. -3m/s B. -5m/s C. 2m/s D. 3m/s	1
7.	A particle moves along a straight line such that its displacement at any instant t is given by $s = (t^3 -3t^2 +2)$m. The displacement when acceleration becomes zero is A. 0m B. 2m C. 3m D. -2m	1
8.	A body falls from a height h. The v-s graph is A.  B. 	1

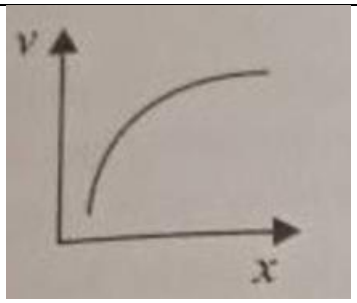
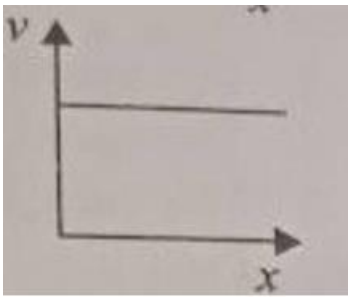
	C.  D. 	
9.	A stone is thrown vertically upward with an initial velocity u from the top of a tower, reaches the ground with a velocity 3u. The height of the tower is A. $3u^2/g$ **B. $4u^2/g$** C. $6u^2/g$ D. $9u^2/g$	1
10.	A food packet is dropped from a helicopter rising up with a velocity of 4m/s. the velocity of the packet after three seconds will be A. 20.4m/s B. 25.4m/s C. 28.4m/s D. 30.4m/s	1
11.	A person throws some balls into air after every second. The next ball is thrown when the velocity of the first ball is zero. How high do the balls rise above the ground? A. 2m B. 5m C. 8m D. 10m	1
12.	On a foggy day, two drivers spot each other when 80m apart. They were travelling at 70km/h and 60km/h. both apply brakes simultaneously which retard the cars at the rate of $5ms^{-2}$. Which of the following statements is correct? A. The collision will be averted B. The collision will take place C. They will cross each other D. They will just collide	1
13.	A car moving along a straight highway with a speed of 126km/h is brought to rest within a distance of 200m. what is the retardation of car (assuming uniform), and how long does it take for the car to stop?	
14.	A uniformly accelerating train passes successive kilometre stone with speed of 18km/hand 27km/h respectively. What will its speed be at the next kilometre stone and how long did it take to cover these 2 kilometres?	1
15.	The speed-time graph of a particle moving along a fixed direction is shown in the	1

figure.

(a) Calculate the distance travelled by the particle from t = 0 to t = 10s

(b) Calculate the average speed in the time interval from 0 to 10s

(c) Calculate the distance travelled in the time interval from 2s to 6s.

(d) Calculate the average speed in the interval from t = 2s to t = 6s.

