

ECAT Physics Chapter 3 Motion and Force

C-	Overtions	Anguaga Chaiga
Sr	Questions	Answers Choice
1	A train is moving with a velocity of 25 m/s and a car is moving behind it by a velocity of 8 m/s in same direction. The relative velocity of train with respect to car is	A. 17 m/s B. 33 m/s C. 17.5 m/s D. none
2	The magnitude of the force producing an acceleration of 10 m/sec ² in a body of mass 500 grams is:	A. 3 N B. 4 N C. 5 N D. 6 N
3	The velocity of a projectile is maximum	A. at the point of projection B. just before striking the ground C. at none of them D. at both of them
4	A ball is dropped downwards After 1 second another ball is dropped downwards from the same point. What is the distance between them after 3 seconds	A. 25 m B. 20 m C. 50 m D. 9.8 m
5	The motion of a projectile is	A. one dimension B. two dimension C. three dimension D. all of them
6	An inertial frame of reference is that frame of reference in which	A. a = 0 B. a > 0 C. a < 0 D. all of them
7	When we consider the average velocity of a body, then the body is moving in	A. straight line B. curved path C. may be in a straight or curved path D. none of them
8	If the water falls from a dam into a turbine wheel 19.6 m below, then the velocity of water at the turbine, is (Take g=9.8 m/s 2)	A. 9.8 m/s B. 19.6 m/s C. 39.2 m/s D. 98.0 m/s
9	Which one of the following is dimensionless:	A. Acceleration B. Velocity C. Density D. Angle
10	Suppose the water flows out from a pipe at 3kg s ⁻¹ and its velocity changes from 5m s ⁻¹ to zero on striking the wall, then the force exerted by water on wall will be	A. 5 N B. 10 N C. 15 N D. 20 N
11	A particle of mass 0.5 g moving along x-axis is located of x_1 = 15 m at t_1 = 5s and x_2 = 33 m at t_2 = 13s its average velocity is	A. 6 m s ⁻¹ B. 2.45 m s ⁻¹ C. 2.25 m s ⁻¹ D. 4.45 m s ⁻¹
12	A man fires a bullet of mass 200 g at a speed of 5 m/s. The gun is of one kg mass. By what velocity the gun rebounds backwards?	A. 0.1 m/s B. 10 m/s C. 1 m/s D. 0.01 m/s
13	The direction of velocity is along the direction of	A. distance B. displacement C. acceleration D. all of them
14	A lift is descending at a constant speed V. A passenger in the lift drops a coin. The acceleration of the coin towards the floor will be	A. Zero B. g Cg D. V + g
15	The decrease in velocity per unit time is called:	A. Variable Acceleration B. Average Acceleration C. Retardation

When the surfaces are coated with a lubricant, then they C. Ro D. No B. Sli A. no B. un C. va	n/s n/s
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Bodies failing freely under gravity provide good example of motion under C. va	
	n-uniform acceleration form acceleration riable acceleration reasing acceleration
19 If two bodies of equal masses moving in the same direction collide elastically, then their velocities. B. Arr C. Do	e added e subtracted not change e exchanged
20. The velocity given to a body to go out of the influence of earth's gravity is known as:	rminal velocity bital velocity cape velocity