Physics ECAT Pre Engineering Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	Distance traveled by a body falling from rest in the first, second and third second is in the ration of	A. 1 : 2 : 3 B. 1 : 3 : 5 C. 1 : 4 : 9 D. None of the above
2	A ball is dropped from a certain height and another ball is projected horizontally from the same point. Which of the following statement is correct?	A. Both hit the ground at the same velocity B. Both hit the ground at the same speed C. The change of velocity during the path for both balls is the same D. The change of speed during the path for both balls is the same
3	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
4	Ethanol (alcohol) as a type of:	A. Electric fuel B. Bio fuel C. Nuclear fuel D. None of these
5	A boat of mass 40 kg is at rest, A dog of mass 4 kg moves in the boat with a velocity of 10 m/s. What is the velocity of boat?	A. 4 m/s B. 2 m/s C. 8 m/s D. 1 m/s
6	The short distance between two points direction from its initial point to final point is called:	A. Velocity B. Displacement C. Speed D. Distance
7	A body moving with an acceleration of 5 m/sec^{2}started with velocity of 10 m/sec. What will be the distance traversed in 10 seconds?	A. 150 m B. 250 m C. 350 m D. 400 m
8	Change in momentum is one second is called:	A. Impulse B. Force C. Energy D. Work
9	A body walks to his school at a distance of 6 km with a speed of 2.5 km/h and walks back with a constant speed of 5 km/h. His average speed for round trip expressed in km/h is	A. 24/13 B. 10/3 C. 3 D. 4,8
10	If d is the displacement of the body in time t, then its average velocity will be	A. V_{av}= d x t B. V_{av = t/d} C. V_{av = d/t} D. V_{av = d/t}
11	Tick the conservation force:	A. Tension in a string B. Air resistance string C. Elastic spring force D. Frictional force
12	A car moves for half of its time at 80 km/h and rest half of time at 40 km/h, The total distance covered is 60 km. What is the average speed of the car?	A. 60 km/hr B. 80 km/hr C. 120 km/hr D. 180 km/hr
13	Newton's laws are adequate for speeds that are	A. low compared with the speed of light B. equal to the speed of light C. greater than the speed of light D. all of them
14	When the surfaces are coated with a lubricant, then they	A. Stick to each other B. Slide upon each other

	[illegible]	C. Roll upon each other D. None of these
15	When a shall explodes a mid-air, the total momentum of its fragments is	A. less than the momentum of shell B. equal to the momentum of shell C. greater than the momentum of shell D. none of them
16	An airplane is flying horizontally with a velocity of 600 km/h and at a height of 1960 m. When it is vertically above a point A on the ground, a bomb is released from it. The bomb strikes the ground, at point B. The distance AB is	A. 1200 m B. 0.33 km C. 3.33 km D. 33 km
17	The instantaneous velocity is define as the limiting value of $\Delta d/\Delta t$ on the time intervalΔt approaches to	A. zero B. maximum C. minimum D. infinity
18	If m means mass of gases objected per second from a rocket and v shows the change in velocity, than mv is named as:	A. Force B. Energy C. work D. impulse
19	Flight of rocket in the space is an example of	A. Newton's first law B. Newton's third law C. Newton's second law D. all of them
20	The magnitude of the force producing an acceleration of 10 m/sec^2in a body of mass 500 grams is:	A. 3 N B. 4 N C. 5 N D. 6 N