Physics ECAT Pre Engineering Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	A stone is dropped from rest from the top of a tower 19.6 m high. The distance traveled during the last second of its fall is (giving g=9.8 m/s^s)	A. 9.8 m B. 14.7 m C. 4.9 m D. 19.6 m
2	The decrease in velocity per unit time is called	A. deceleration B. acceleration C. uniform acceleration D. variable acceleration
3	When the mass of the colliding body is much larger than the mass of the body at rest, its velocity after collision.	A. Becomes half B. Becomes zero C. Ramains same D. Becomes double
4	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
5	The dimension of linear inertia is:	A. MLT² B. ML⁰T⁻² C. ML⁰T⁰ D. MLT⁻¹
6	The motion of a projectile is	A. one dimension B. two dimension C. three dimension D. all of them
7	Tick the conservative force:	A. tension in a string B. Air resistance C. Elastic spring force D. Frictional force
8	A rocket carries its own fuel in the form of	A. liquid only B. liquid or solid C. liquid and solid D. liquid or solid and oxygen
9	The time of flight of a projectile motion equal to	A. half of the time to reach maximum height B. twice the time to reach maximum height C. one fourth of time to reach maximum height D. time to reach maximum height
10	The short distance between two points direction from its initial point to final point is called:	A. Velocity B. Displacement C. Speed D. Distance
11	In above figures, tell which set of graphs shows that a body is moving with uniform velocity:	A. (i) and (ii) B. (ii) and (iii) C. (iii) and (iv)
12	Graphs which are used to illustrate the variation of velocity of an object with time are called	A. distance time graphs B. speed time graphs C. velocity time graphs D. acceleration time graphs
13	In equation F=ma, then mass 'm' is	A. rest mass B. variable mass C. inertial mass D. gravitational mass
14	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
15	Bodies failing freely under gravity provide good example of motion under	A. non-uniform acceleration B. uniform acceleration C. variable acceleration

		D. increasing acceleration
16	If the velocity time graph is a straight line parallel to the time-axis, then it means:	A. The body is moving with uniform velocity B. The body is moving with uniform acceleration C. The body is at rest D. None of these
17	Distance covered by a freely falling body in 2 sec will be	A. 4.9 m B. 19.6 m C. 29.2 m D. 44.1 m
18	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
19	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 C. -g D. V + g
20	A person is sitting in a traveling train and facing the engine. He tosses up a coin and the coin falls behind him. It can be concluded that the train is	A. Moving forward and gaining speed B. Moving forward and losing speed C. Moving forward with uniform speed D. Moving backward with uniform speed