Physics ECAT Pre Engineering Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	A body is dropped from a tower with zero velocity, reaches ground in 4s. The height of the tower is about	A. 80 m B. 20 m C. 160 m D. 40 m
2	A body of mass 5 kg is acted upon by a total change n momentum will be:	A. 10 NS B. 100 NS C. 140 NS D. 200 NS
3	Root out the conventional source of energy:	A. Energy from blomass B. hydroelectric energy C. Geothermal energy D. None of these
4	The dimension of linear inertia is:	A. MLT² B. ML⁰T⁻² C. ML⁰T⁰ D. MLT⁻¹
5	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
6	When a bicycle is in motion but not pedaled, the force of friction exerted by the ground on the two wheels is such that it acts	A. In the backward direction on the front wheel and in the forward direction on the rear wheel B. In the forwards directions on the front wheel and in the backward direction on the rear wheel C. In the forward direction on both the wheels D. In the backward direction on both the wheels
7	If speed of electron is 5 x 10^5m/s. How long does it take one electron to transverse 1 m?	A. 1 x 10⁶ B. 2 x 10⁶ C. 2 x 10⁵ D. 1 x 10⁵
8	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
9	The vertical component of velocity of a projectile during its motion is minimum	A. at the time of projection B. at the highest point C. just before hitting the plane of projection D. all of them
10	If m is the mass of the gases ejected per second with velocity v relative to the rocket of mass M, then the acceleration of rocket is	A. a = M/mv B. a = mM/v C. a = mv/M D. a = v/mm
11	Acceleration produced in a body by a force varies	A. inversely as the applied force B. directly as the applied force C. directly as the mass of the body D. none of them
12	A ball of mass m moving with uniform speed collides elastically with another stationary ball. The incident ball will lose maximum kinetic energy when mass of the stationary ball is	A. m B. 2 m C. 4 m D. Infinity
13	The consumption source if energy is:	A. Energy from blomass B. Hydroelectric energy C. Geothermal energy D. None of these
14	If a ball comes back to its starting point after bouncing off the wall several times, then its	A. total displacement is zero B. average velocity is zero

		C. none of them D. both of them
15	To get a resultant displacement of 10 m, two displacement vectors of magnitude 6 m and 8 m should be combined	A. Parallel B. Antiparallel C. At angle 60° D. Perpendicular to each other
16	In an elevator moving vertically up with an acceleration 'g' the force exerted on the floor by a passenger of mass M is	A. Mg B. 1/2 Mg C. Zero D. 2 Mg
17	One KWh is equal to:	A. 3.6 x 10²J B. 3.6 KJ C. 3,6 x 10¹KJ D. 3,6 MJ
18	Work done along a closed path in a gravitational force is:	A. maximum B. Minimum C. Zero D. Unity
19	Acceleration of a body at any particular instant during its motion is known as	A. average acceleration B. uniform acceleration C. instantaneous acceleration D. all of them
20	A dirty carpet is to be cleaned by heating. This is an accordance with____ law of motion:	A. First B. Second C. Third D. None of these