

Physics ECAT Pre Engineering Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	A body of mass 5 kg is acted upon by a total change in momentum will be:	A. 10 NS B. 100 NS C. 140 NS D. 200 NS
2	Change in momentum is one second is called:	A. Impulse B. Force C. Energy D. Work
3	The consumption of energy by a 1000 watt heater in half an hour is:	A. 5 Kwh B. 0.5 Kwh C. 2.5 Kwh D. 3.2 Kwh
4	If the values of instantaneous and average velocities are equal, the body is said to be moving with	A. uniform acceleration B. uniform speed C. variable velocity D. uniform velocity
5	A snooker ball moving with velocity V collides head on with another snooker ball of same mass at rest. If the collision is elastic, the velocity of second snooker ball is	A. Zero B. Infinity C. V D. $2V$
6	When a bicycle is in motion, the frictional forces exerted by the ground are	A. In the forward direction on both the wheels B. In the backward direction on both the wheels C. In the forward direction on the front wheel and the backward direction on the rear wheel D. In the backward direction on the front wheel and the forward direction on the rear wheel
7	The path described by a projectile is called its	A. orbit B. trajectory C. range D. distance
8	In equation $F=ma$, then mass 'm' is	A. rest mass B. variable mass C. inertial mass D. gravitational mass
9	A ball is dropped from a height of 4.2 meters. To what height it will rise if there is no loss of KE after rebounding?	A. 4.2 m B. 8.4 C. 12.6 D. None of these
10	A motorist travels A to B at a speed at 40 km/h and returns at speed of 60km/h. His average speed will be	A. 40 km/h B. 48 km/h C. 50 km/h D. 60 km/h
11	A body whose momentum is constant must have constant	A. Acceleration B. Velocity C. Force D. None of these
12	For a fixed force, larger is the mass of a body then	A. greater is its acceleration B. smaller is its acceleration C. smaller is its weight D. zero is its acceleration
13	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
14	The motion of a projectile is	A. one dimension B. two dimension C. three dimension D. " "

		D. all of them
15	Swimming becomes possible because of _____ law of motion:	A. First B. Second C. Third D. None of these
16	A force of 50 dynes is acted on a body of mass 5 g which is at rest, for an interval of 3 seconds, then impulse is	A. $0.15 \times 10^{-3} \text{Ns}$ B. $0.98 \times 10^{-3} \text{Ns}$ C. $1.5 \times 10^{-3} \text{Ns}$ D. $2.5 \times 10^{-3} \text{Ns}$
17	Slope of velocity time graph represents:	A. Acceleration B. Speed C. Torque D. Work
18	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
19	Which quantity has the same units as impulse	A. force B. work C. linear momentum D. acceleration
20	For maximum linear distance of travel, a projectile must be fired at an angle of	A. 0° B. 45° C. 90° D. 60°