

ECAT Pre General Science Physics Chapter 3 Motion and Force Online Test

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Sr	Questions	Answers Choice
1	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
2	If the objects of different masses move with the same velocity, then it is more difficult to stop the	A. lighter of the two B. massive of the two C. any one of them D. both of them
3	Rate of change of momentum is called	A. Impulse B. Force C. Torque D. Momentum
4	Inertia mass and gravitational mass are	A. opposite B. identical C. identical when there is no friction D. all of them
5	If a train traveling at 72 kmph is to be brought to rest in a distance of 200 meters then its retardation should be	A. 20 ms ⁻² B. 10 ms ⁻² C. 2 ms ⁻² D. 1 ms ⁻²
6	The collision in which KE is conserved but momentum is not conserved is called:	A. Elastic collision B. Inelastic collision C. any these D. None of these
7	Two projectiles are fired from the same point with the same speed at angles of projection 60° and 30° respectively. Which one of the following is true?	A. Their range will be same B. Their maximum height will be same C. Their landing velocity will be same D. Their time of flight will be same
8	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
9	The velocity given to a body to go out of the influence of earth's gravity is known as:	A. Terminal velocity B. Orbital velocity C. Escape velocity D. None of these
10	What will be the ratio of the distance moved by a freely falling body from rest in 4th and 5th seconds of journey?	A. 4:5 B. 7:9 C. 16:25 D. 1:1
11	The velocity given to a body to go out of the influence of earth's gravity is known as:	A. Terminal velocity B. Orbital velocity C. Escape velocity D. None of these
12	The sum of the magnitude of two forces acting at a point is 18 and the magnitude of their resultant is 12. If the resultant is at 90° with the force of the smaller magnitude, then their magnitudes are	A. 3, 15 B. 4, 14 C. 5, 13 D. 6, 12
13	The time rate of change of displacement is called:	A. Time B. Acceleration C. Speed D. Velocity
14	Tick the conservative force:	A. tension in a string B. Air resistance C. Elastic spring force

		D. Frictional force
15	Which quantity has the same units as impulse	A. force B. work C. linear momentum D. acceleration
16	For a moving body, at any instant of time	A. If the body is not moving the acceleration is necessarily zero B. If the body is slowing, the retardation is negative C. If the body is slowing, the distance is negative D. If displacement, velocity and acceleration at that instant are known, we can find the displacement at any given time in future
17	One newton is a force that produces an acceleration of 0.5 m/sec ² in a body of mass:	A. 2 Kg B. 3 Kg C. 4 Kg D. 8 Kg
18	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
19	If the velocity of the body decreases non-uniformly then the slope of the velocity-time graph will have	A. different values B. same values C. zero valves D. constant valves
20	The decrease in velocity per unit time is called	A. deceleration B. acceleration C. uniform acceleration D. variable acceleration