

ECAT Physics Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	Rate of change of momentum is called	A. Impulse B. Force C. Torque D. Momentum
2	The range of projectile is 50 m when θ is inclined with horizontal at 15° . What is the range when θ becomes 45° ?	A. 400 m B. 300 m C. 200 m D. 100 m
3	When a person jumps off the ground, the reaction force of the ground is	A. greater than the weight of the person B. smaller than the weight of the person C. equal to the weight of the person D. zero
4	Acceleration in a body is always produced in the direction of :	A. Velocity B. Weight C. Force D. Both B and C
5	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
6	A body moving with uniform velocity has	A. positive acceleration B. negative acceleration C. infinite acceleration D. zero acceleration
7	If a car rest acceleration uniformly to a speed of 144 km/h in 20 s it covers a distance of	A. 20 m B. 400 m C. 1440 m D. 2880 m
8	When body moves with increasing acceleration, its velocity time graph is a	A. straight line B. horizontal straight line C. vertical straight line D. curve
9	An object thrown in arbitrary direction in space with an initial velocity and moving freely under gravity will follow	A. a circular path B. a straight line C. a hyperbola D. a parabola
10	The decrease in velocity per unit time is called:	A. Variable Acceleration B. Average Acceleration C. Retardation D. None of these
11	A body whose momentum is constant must have constant	A. Acceleration B. Velocity C. Force D. None of these
12	What must be changing when a body is accelerating uniformly?	A. the force acting on a body B. the velocity of the body C. the mass of the body D. the speed of the body
13	A ball is dropped downwards After 1 second another ball is dropped downwards from the same point. What is the distance between them after 3 seconds	A. 25 m B. 20 m C. 50 m D. 9.8 m
14	The path (or trajectory) described by a projectile is	A. a parabola B. a hyperbola C. a circle D. a straight line
15	Unit of impulse in	A. Newton B. Kg m C. Kg m/s D. Kg m/s ²

		D. Joule
16	The instantaneous velocity is define as the limiting value of $\Delta d/\Delta t$ on the time interval Δt approaches to	A. zero B. maximum C. minimum D. infinity
17	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
18	A typical rocket consists of fuel	A. more than 60% of launch mass B. less than 60% of launch mass C. less than 80% of launch mass D. more than 80% of launch mass
19	If the water falls from a dam into a turbine wheel 19.6 m below, then the velocity of water at the turbine, is (Take $g=9.8 \text{ m/s}^2$)	A. 9.8 m/s B. 19.6 m/s C. 39.2 m/s D. 98.0 m/s
20	The three equation of motions are useful only for	A. linear motion with increasing acceleration B. line motion with uniform acceleration C. linear motion with zero acceleration D. linear motion with varying acceleration