

Physics ECAT Pre Engineering Chapter 3 Motion and Force

C.	Questions	Anguara Chaica
Sr	Questions	Answers Choice
1	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
2	If the velocity time graph is a straight line parallel to time-axis, then it means that:	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 above
3	The projectile attains maximum horizontal range when it is projected at an angle of	A. 30 ° B. 45 ° C. 60 ° D. 75 °
4	Change in momentum is one second called.	A. Impulse B. Force C. Energy D. Work
5	A body of weight 1 N has a kinetic energy of 1 joule when its speed is:	A. 1.46 m sec ⁻¹ B. 2.44 m sec ⁻¹ C. 3.42 m sec ⁻¹ D. 4.43 m sec ⁻¹
6	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 veloctiy 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
7	The instantaneous velocity is define as the limiting value of $\Delta d/\Delta t$ on the time interval $\!\Delta t$ approaches to	A. zero B. maximum C. minimum D. infinity
8	A typical rocket ejects the burnt gases at speeds over	A. 400 ms ⁻¹ B. 40000m s ⁻¹ C. 40000 ms ⁻¹ D. 60000 ms ⁻¹
9	Acceleration in a body is always produced in the direction of :	A. Velocity B. Weight C. Force D. Both B and C
10	A body moving with an acceleration of 5 m/sec ² started with velocity of 10 m/sec. What will be the distance traversed in 10 seconds?	A. 150 m B. 250 m C. 350 m D. 400 m
11	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
12	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

13	Which of the following is not a projectile	A. a bullet fired from a gun B. a space ship C. a football in air D. an artillery shell
14	In equation F=ma, then mass 'm' is	A. rest mass B. variable mass C. inertial mass D. gravitational mass
15	The artillery shells travel along parabolic paths under the influence of	A. magnetic field B. electric field C. electromagnetic field D. gravitational field
16	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
17	Biomass includes:	A. Crop residue B. Natural vegetation C. Animal dung D. All of these
18	The horizontal component of a projectile moving with initial velocity of 500 ms $^{-1}$ at an angle 60° to x-axis is	A. 500 ms ⁻¹ B. 1000 ms ⁻¹ C. 250 ms ⁻¹ D. Zero
19	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
20	Newton's first law is also called:	A. Law of torque B. Law of force C. Law of inertia D. None of these