ECAT Pre General Science Physics Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	Two bullets are fired simultaneously, horizontally and with different speeds from the same place. Which bullet will hit the ground first?	A. The faster one B. Depends on their mass C. The slower one D. Both will reach simultaneously
2	Distance traveled by a body falling from rest in the first, second and third second is in the ration of	A. 1 : 2 : 3 B. 1 : 3 : 5 C. 1 : 4 : 9 D. None of the above
3	A body whose momentum is constant must have constant	A. Acceleration B. Velocity C. Force D. None of these
4	Dimensions of velocity are	A. [L] B. [T] C. [LT⁻¹] D. [LT⁻²]
5	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
6	The projectile motion is composed of	A. horizontal motion only B. vertical motion only C. horizontal and vertical motion D. none of them
7	Tick the conservative force:	A. tension in a string B. Air resistance C. Elastic spring force D. Frictional force
8	Rate of change of momentum is called	A. Impulse B. Force C. Torque D. Momentum
9	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
10	Change in momentum is one second called.	A. Impulse B. Force C. Energy D. Work
11	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
12	Work done along a closed path in a gravitational field is:	A. Maximum B. Minimum C. Zero D. Unity
13	The velocity of a body at any instant of its motion is known as	A. average velocity B. instantaneous velocity C. uniform velocity D. none of them
14	Which of the following four statements is false?	A. A body can have zero velocity and still be accelerated B. A body can have a constant velocity and still have a varying speed C. A body can have a constant speed and still have a varying velocity

		D. The direction of the velocity of a body can change when its acceleration is constant
15	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
16	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
17	A man sitting in a bus travelling in a direction from west to east with a speed of 40 km/h observes that the rain drops are falling vertically down. To the another man standing on ground the rain will appear	A. To fall vertically down B. To fall at an angle going from west to east C. To fall at an angle going from east to west D. The information given is insufficient to decide the direction of rain
18	The path followed by the projectile is known as:	A. Cycle B. Hyperbola C. Trajectory D. Route
19	Linear momentum is a	A. fixed quantity B. constant quantity C. scalar quantity D. vector quantity
20	A 5 kg mass is falling freely, the force acting on, it will be	A. 19.6 N B. 9.8 N C. 5 N D. Zero