

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

Sr	Questions	Answers Choice
SI	Questions	
1	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
2	A monkey sits on the pan of spring scale kept in an elevator. The reading of the spring scale will be maximum when	A. Elevator is stationary     B. Elevator cable breaks and it falls freely towards earth     C. Elevator accelerates downwards     D. Elevator accelerates upward
3	A particle of mass 0.5 g moving along x-axis is located of $x_1$ = 15 m at $t_1$ = 5s and $x_2$ = 33 m at $t_2$ = 13s its average velocity is	A. 6 m s <sup>-1</sup> B. 2.45 m s <sup>-1</sup> C. 2.25 m s <sup>-1</sup> D. 4.45 m s <sup>-1</sup>
4	Laws of motion are not valid in a system which is	A. inertial B. non-interial C. at rest D. moving with uniform velocity
5	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
6	Earth is considered to be	A. a non-inertial frame B. an inertial frame C. an accelerated frame D. none of the above
7	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 m/s $^2$ )	A. 9.8 m/s B. 19.6 m/s C. 39.2 m/s D. 98.0 m/s
8	One KWh is equal to:	A. 3.6 x 10 <sup>2</sup> J B. 3.6 KJ C. 3,6 x 10 <sup>1</sup> KJ D. 3,6 MJ
9	The consumption source if energy is:	A. Energy from blomass B. Hydroelectric energy C. Geothermal energy D. None of these
10	A non-inertial frame of reference is that frame of reference in which	A. $a = 0$ B. $a > 0 or a < 0C. v = 0D. none of them$
11	Ethanol (alcohol) is a type of:	A. Electric fuel B. Bio fuel C. Nuclear fuel D. None of these
12	The direction of the linear momentum is the direction of	A. speed B. velocity C. weight D. none of them
13	The direction of the acceleration is the same as that of	A. speed B. velocity C. both of them D. none of them
14	The shortest distance between two points directed from its initial point to final point is called:	A. Velocity B. Displacement C. Speed

		D. Distance
15	Which of the following statements for an object in equilibrium is not true?	A. The object must be at rest B. The object can be at rest C. The object is moving at constant speed D. The acceleration of the object is zero
16	Find the total displacement of a body in 8 seconds starting from rest with an acceleration of 20 cm/s <sup>2</sup>	A. 0.064 m B. 640 cm C. 64 cm D. 64 m
17	A man fires a bullet of mass 200 g at a speed of 5 m/s. The gun is of one kg mass. By what velocity the gun rebounds backwards?	A. 0.1 m/s B. 10 m/s C. 1 m/s D. 0.01 m/s
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 <sup>-1</sup> B. 1000 ms <sup>-1</sup> C. 250 ms <sup>-1</sup> D. Zero
19	The horizontal range of projectile, at a certain place, depends upon	A. the mass of the projectile B. velocity of projection C. angle of projection D. angle as well as velocity of projection
20	A ball is thrown upwards with a velocity of 100 m/s. It will reach the ground after	A. 10 s B. 20 s C. 5 s D. 40 s