

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

Sr	Questions	Answers Choice
1	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
2	A vehicle of mass 120 kg is moving with a uniform velocity of 108 km/h. The force required to stop the vehicle in 10s is	A. 120 x 10.8 N B. 180 N C. 720 N D. 360 N
3	The magnitude of the force producing an acceleration of 10 m/sec ² in a body of mass 500 grams is:	A. 3 N B. 4 N C. 5 N D. 6 N
4	Tick the conservative force:	A. tension in a string B. Air resistance C. Elastic spring force D. Frictional force
5	Force is a:	A. Scalar quantity B. Base quantity C. Derived quantity D. None of these
6	The motion of a projectile is	A. one dimension B. two dimension C. three dimension D. all of them
7	A ball is dropped vertically down and it takes time t to reach the ground. At time t/2	A. The ball had covered exactly half the distance B. The velocity of the ball was V/3 where V is the velocity when it reached the ground C. The ball had covered less than half the distance D. The ball had covered more than half the distance
8	The path described by a projectile is called its	A. orbit B. trajectory C. range D. distance
9	The entity which measures the quantity of motion in a body is called	A. force B. energy C. momentum D. power
10	Rocket engines lift a rocket from the earth surface, because hot gas with high velocity	A. Push against the air B. React against the rocket and push it up C. Heat up the air which lifts the rocket D. Push against the earth
11	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
12	The projectile motion is composed of	A. horizontal motion only B. vertical motion only C. horizontal and vertical motion D. none of them
13	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
		A. To fall vertically down

14	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	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
15	When a force is applied on a body, several effects are possible Which of the following effect could not occur?	A. the body rotates B. the body speeds up C. the mass of the body decreases D. the body changes its direction
16	In above figures, tell which set of graphs shows that a body is moving with uniform velocity:	A. (i) and (ii) B. (ii) and (iii) C. (iii) and (iv)
17	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
18	Tick the conservation force:	A. Tension in a string B. Air resistance string C. Elastic spring force D. Frictional force
19	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
20	The dimension of linear inertia is:	A. MLT ² B. ML ⁰ T ⁻² C. ML ⁰ T ⁰ D. MLT ⁻¹