

Physics ECAT Pre Engineering Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	The velocity given to a body to go out of the influence of earth's gravity is known as:	A. Terminal velocity B. Orbital velocity C. Escape velocity D. None of these
2	By which velocity a ball be projected vertically so that the distance covered by it in 5th seconds is twice the distance it covers in its 6th second ($g=10\text{m/s}^2$)	A. 58.8 m/s B. 49 m/s C. 65 m/s D. 19.6 m/s
3	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
4	A ball is dropped from a height of 4.2 meters. To what height will take it rise if there is no loss of KE after rebounding?	A. 4.2 m B. 8.4 m C. 12.6 m D. none of these
5	If m is the mass of the gases ejected per second with velocity v relative to the rocket of mass M , then the acceleration of rocket is	A. $a = M/mv$ B. $a = mM/v$ C. $a = mv/M$ D. $a = v/mm$
6	If m means mass of gases objected per second from a rocket and v shows the change in velocity, than mv is named as:	A. Force B. Energy C. work D. impulse
7	The expression $F \times t$ is called impulse if the time ' t ' is	A. zero B. very large C. very small D. infinite
8	A certain force gives an acceleration of 2 m/sec^2 to a body if mass 5 kg. The same force would give a 29 kg object an acceleration of:	A. 0.5 m/sec^2 B. 5 m/sec^2 C. 1.5 m/sec^2 D. 9.8 m/sec^2
9	A dirty carpet is to be cleaned by heating. This is an accordance with _____ law of motion:	A. First B. Second C. Third D. None of these
10	When we consider the average velocity of a body, then the body is moving in	A. straight line B. curved path C. may be in a straight or curved path D. none of them
11	Maximum height of a bullet when fired at 30° with horizontal is 11 m. Then height when it is fired at 60° is	A. 22 m B. 6 m C. 33 m D. 7.8 m
12	The velocity given to a body to go out of the influence of earth's gravity is known as:	A. Terminal velocity B. Orbital velocity C. Escape velocity D. None of these
13	When the total displacement is divided by total time taken, we get:	A. Velocity B. Average speed C. Average velocity D. None of these
14	A boat of mass 40 kg is at rest, A dog of mass 4 kg moves in the boat with a velocity of 10	A. 4 m/s B. 2 m/s

	m/s. What is the velocity of boat?	C. 8 m/s D. 1 m/s
15	When a horse pulls a cart, the force that makes the horse run forward is the force exerted by	A. The horse on the ground B. The horse on the cart C. The ground on the horse D. The ground on the cart
16	Acceleration in a body is always produced in the directin of:	A. Velocity B. Weight C. Force D. Botha B and C
17	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
18	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
19	What will be the ratio of the distance moved by a freely falling body from rest in 4th and 5th seconds of journey?	A. 4 : 5 B. 7 : 9 C. 16 : 25 D. 1 : 1
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