

## ECAT Physics Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	During the upward motion of the projectile, the vertical component of velocity.	A. Decreases B. Increases C. Remains constant D. None of these
2	One KWh is equal to:	A. $3.6 \times 10^{22}$ J B. 3.6 KJ C. $3.6 \times 10^{17}$ KJ D. 3.6 MJ
3	The short distance between two points direction from its initial point to final point is called:	A. Velocity B. Displacement C. Speed D. Distance
4	Dimensions of velocity are	A. [L] B. [T] C. $[LT^{-1}]$ D. $[LT^{-2}]$
5	A body moving with an acceleration of $5 \text{ m/sec}^2$ 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
6	In equation $F=ma$ , then mass 'm' is	A. rest mass B. variable mass C. inertial mass D. gravitational mass
7	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. $a = v/mm$
8	An inertial frame of reference is that frame of reference in which	A. $\frac{d^2x}{dt^2} = 0$ B. $\frac{d^2x}{dt^2} > 0$ C. $\frac{d^2x}{dt^2} < 0$ D. all of them
9	Change in momentum is one second called.	A. Impulse B. Force C. Energy D. Work
10	An object is dropped from a height of 100 m. Its velocity at the moment it touches the ground is:	A. 100 m/sec B. 140 m/sec C. 1960 m/sec D. 196 m/sec
11	One newton is a force that produces an acceleration of $0.5 \text{ m/sec}^2$ in a body of mass:	A. 2 Kg B. 3 Kg C. 4 Kg D. 8 Kg
12	In velocity of a particle at an instant is 10 m/s and after 5s the velocity of the particle is 20 m/s. The velocity 3s before in m/s is	A. 8 B. 4 C. 6 D. 7
13	Ethanol (alcohol) as a type of:	A. Electric fuel B. Bio fuel C. Nuclear fuel D. None of these
14	An aircraft is moving with a velocity of $300 \text{ ms}^{-1}$ . If all the forces acting on it are balanced, then	A. It still moves with the same velocity B. It will be just floating at the same point in space C. It will be fall down instantaneously D. It will lose its velocity gradually
15	What must be changing when a body is accelerating uniformly?	A. the force acting on a body B. the velocity of the body C. the mass of the body

		D. the speed of the body
16	The velocity of a projectile is maximum	A. at the point of projection B. just before striking the ground C. at none of them D. at both of them
17	The quantity $F \times t$ is called as	A. momentum B. velocity C. acceleration D. impulse
18	When a body is moving on a surface, the force of friction is called	A. Static friction B. Dynamic friction C. Limiting friction D. Rolling friction
19	The slopes of the tangent at any point on the curve gives the value of the	A. average velocity at that point B. instantaneous velocity at that point C. average acceleration at that point D. instantaneous acceleration at that point
20	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