

Physics ECAT Pre Engineering Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	The decrease in velocity per unit time is called:	A. Variable Acceleration B. Average Acceleration C. Retardation D. None of these
2	The motion in a plane is the motion in	A. one dimension B. two dimension C. three dimension D. four dimension
3	The SI units of momentum is	A. kg m s ⁻² B. kg ms C. kg m s ² D. N-s
4	The dimension of linear inertia is:	A. MLT ² B. ML ⁰ T ⁻² C. ML ⁰ T ⁰ D. MLT ⁻¹
5	The path (or trajectory) described by a projectile is	A. a parabola B. a hyperbola C. a circle D. a straight line
6	Angular momentum	A. Scalar B. Axial vector C. Polar vector D. At 45 ° angle
7	The entity which measures the quantity of motion in a body is called	A. force B. energy C. momentum D. power
8	According to the law of conservation of linear momentum, the total linear momentum of an isolated system	A. increases B. decreases with time C. remains constant D. none of them
9	A cold soft drink is kept on the balance. When the cap is opened, then the weight	A. Increases B. Decreases C. First increases, then decreases D. Remains same
10	A typical rocket consists of fuel	A. more than 60% of launch mass B. less than 60% of launch mass C. less than 80% of launch mass D. more than 80% of launch mass
11	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
12	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
13	When a body is moving on a surface, the force of friction is called	A. Static frictionB. Dynamic frictionC. Limiting frictionD. Rolling friction
14	If d is the displacement of the body in time t, then its average velocity will be	A. V _{av} = d x t B. V _{av = t/d} C. V _{av = d/t} D. V _{av = d}

15	If a ball comes back to its starting point after bouncing off the wall several times, then its	A. total displacement is zero B. average velocity is zero C. none of them D. both of them
16	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
17	A body moving with uniform velocity has	A. positive acceleration B. negative acceleration C. infinite acceleration D. zero acceleration
18	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
19	A ball is dropped from a height of 4.2 meters. To what height it will rise if there is no loss of KE after rebounding?	A. 4.2 m B. 8.4 C. 12.6 D. None of these
20	A body is moving with constant velocity of 10 m/sec in the north east direction. Then its acceleration will be:	A. 10 m/sec2 B. 20 m/sec2 C. 30 m/sec2 D. Zero