ECAT Physics Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	Which one of the following is dimensionless:	A. Acceleration B. Velocity C. Density D. Angle
2	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
3	The path (or trajectory) described by a projectile is	A. a parabola B. a hyperbola C. a circle D. a straight line
4	During the projectile motion, the horizontal component of velocity	A. changes with time B. remains constant C. becomes zero D. decreases with time
5	The product of force and time is called	A. acceleration B. linear momentum C. angular momentum D. impulse
6	For maximum linear distance of travel, a projectile must be fired at an angle of	A. 0° B. 45° C. 90° D. 60°
7	A lift is descending at a constant speed V. A passenger in the lift drops a coin. The acceleration of the coin towards the floor will be	A. Zero B. g C. -g D. V + g
8	During the upward motion of the projectile, the vertical component of velocity:	A. Decreases B. Increases C. Remains constant D. None of these
9	In an elevator moving vertically up with an acceleration 'g' the force exerted on the floor by a passenger of mass M is	A. Mg B. 1/2 Mg C. Zero D. 2 Mg
10	A body moving with uniform velocity has	A. positive acceleration B. negative acceleration C. infinite acceleration D. zero acceleration
11	The projectile motion is composed of	A. horizontal motion only B. vertical motion only C. horizontal and vertical motion D. none of them
12	Linear momentum is a	A. fixed quantity B. constant quantity C. scalar quantity D. vector quantity
13	The time of flight of a projectile motion equal to	A. half of the time to reach maximum height B. twice the time to reach maximum height C. one fourth of time to reach maximum height D. time to reach maximum height

14	A ball is dropped downwards After 1 second another ball is dropped downwards from the same point. What is the distance between them after 3 seconds	A. 25 m B. 20 m C. 50 m D. 9.8 m
15	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
16	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
17	If a car rest acceleration uniformly to a speed of 144 km/h in 20 s it covers a distance of	A. 20 m B. 400 m C. 1440 m D. 2880 m
18	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
19	A body is dropped from a tower with zero velocity, reaches ground in 4s. The height of the tower is about	A. 80 m B. 20 m C. 160 m D. 40 m
20	In the above figures, tell which set is graphs shows that a body is moving uniform velocity:	A. (i) and (ii) B. (ii) and (iii) C. (i) and (iii) D. (ii) and (iv)