

ECAT Physics Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	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)
2	A body is thrown from a height h with speed u , it hits the ground with speed V	A. The value of V is maximum if the body is thrown vertically downward B. The value of V is maximum if the body is thrown vertically upwards C. The value of V is minimum if the body is thrown horizontally D. The value of V does not depend on the direction of which it is thrown
3	Two projectiles are fired from the same point with the same speed at angles of projection 60° and 30° respectively. Which one of the following is true?	A. Their range will be same B. Their maximum height will be same C. Their landing velocity will be same D. Their time of flight will be same
4	The short distance between two points direction from its initial point to final point is called:	A. Velocity B. Displacement C. Speed D. Distance
5	The area under line velocity-time graph is numerically equal to the	A. speed of the body B. acceleration of the body C. distance covered by the body D. none of them
6	The mass of a body measured by a physical balance in a lift at rest is found to be m , if the lift is going up with an acceleration a , its mass will be measured as	A. $m(1 - a/g)$ B. $m(1 + a/g)$ C. m D. Zero
7	The artillery shells travel along parabolic paths under the influence of	A. magnetic field B. electric field C. electromagnetic field D. gravitational field
8	Dimensions of velocity are	A. $[L]$ B. $[T]$ C. $[LT^{-1}]$ D. $[LT^{-2}]$
9	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
10	In equation $F=ma$, then mass ' m ' is	A. rest mass B. variable mass C. inertial mass D. gravitational mass
11	Acceleration of a body at any particular instant during its motion is known as	A. average acceleration B. uniform acceleration C. instantaneous acceleration D. all of them
12	A rocket carries its own fuel in the form of	A. liquid only B. liquid or solid C. liquid and solid D. liquid or solid and oxygen
13	A non-inertial frame of reference is that frame of reference in which	A. $a < 0$ B. $a > 0$ or $a < 0$ C. $v < 0$ D. none of them
14	The decrease in velocity per unit time is called:	A. Variable Acceleration B. Average Acceleration C. Retardation D. None of these

15	The SI units of momentum is	B. kg ms C. kg m s ² D. N-s
16	If an iron ball and a wooden ball of the same radius was released from a height 'h' in vacuum, then time taken by both of them to reach ground will be	A. Unequal B. Exactly equal C. Roughly equal D. Zero
17	A car travels first half distance between two places with a speed of 30 km/h and remaining half with a speed of 50 km/h. The average speed of the car is	A. 37.5 km/h B. 10 km/h C. 42 km/h D. 40 km/h
18	When a bicycle is in motion, the frictional forces exerted by the ground are	A. In the forward direction on both the wheels B. In the backward direction on both the wheels C. In the forward direction on the front wheel and the backward direction on the rear wheel D. In the backward direction on the front wheel and the forward direction on the rear wheel
19	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
20	Change in momentum is one second called.	A. Impulse B. Force C. Energy D. Work