ECAT Physics Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	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
2	The dimension of linear inertia is:	A. MLT² B. ML⁰T⁻² C. ML⁰T⁰ D. MLT⁻¹
3	If the acceleration of a body is not uniform, then velocity-time graph will be:	A. Curve B. Straight line C. Sphere D. All of these
4	At the top of the trajectory of a projectile the acceleration is	A. The maximum B. The minimum C. Zero D. g
5	Acceleration produced in a body by the force varies	A. inversely as the applied force B. directly as the applied force C. directly as the mass of the body D. none of them
6	The decrease in velocity per unit time is called:	A. Variable Acceleration B. Average Acceleration C. Retardation D. None of these
7	Graphs which are used to illustrate the variation of velocity of an object with time are called	A. distance time graphs B. speed time graphs C. velocity time graphs D. acceleration time graphs
8	Change in momentum is one second is called:	A. Impulse B. Force C. Energy D. Work
9	Acceleration of a body is negative if the velocity of the body is	A. constant B. increasing C. decreasing D. none of them
10	During the projectile motion, the horizontal component of velocity	A. changes with time B. remains constant C. becomes zero D. decreases with time
11	Swimming becomes possible because of_____law of motion.	A. First B. Second C. Third D. None of these
12	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
13	Newton's laws are adequate for speeds that are	A. low compared with the speed of light B. equal to the speed of light C. greater than the speed of light D. all of them
14	A ball of mass m moving with uniform speed collides elastically with another stationary ball. The incident ball will lose maximum kinetic energy when mass of the stationary ball is	A. m B. 2 m C. 4 m D. Infinity

15	The shortest distance between two points directed from its initial point to final point is called:	A. Velocity B. Displacement C. Speed D. Distance
16	During the upward motion of the projectile, the vertical component of velocity.	A. Decreases B. Increases C. Remains constant D. None of these
17	For maximum linear distance of travel, a projectile must be fired at an angle of	A. 0° B. 45° C. 90° D. 60°
18	For a given angle of projection, if the time of flight of a projectile is doubled, the horizontal range will increases to	A. Four times B. Thrice C. Once D. Twice
19	A snooker ball moving with velocity V collides head on with another snooker ball of same mass at rest. If the collision is elastic, the velocity of second snooker ball is	A. Zero B. Infinity C. V D. 2 V
20	A man sitting in a bus travelling in a direction from west to east with a speed of 40 km/h observes that the rain drops are falling vertically down. To the another man standing on ground the rain will appear	A. To fall vertically down B. To fall at an angle going from west to east C. To fall at an angle going from east to west D. The information given is insufficient to decide the direction of rain