ECAT Pre General Science Physics Chapter 3 Motion and Force Online Test

Sr	Questions	Answers Choice
1	Suppose the water flows out from a pipe at 3kg s^{-1}and its velocity changes from 5m s^{-1}to zero on striking the wall, then the force exerted by water on wall will be	A. 5 N B. 10 N C. 15 N D. 20 N
2	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
3	Which quantity has the same units as impulse	A. force B. work C. linear momentum D. acceleration
4	The product of force and time is called	A. acceleration B. linear momentum C. angular momentum D. impulse
5	The entity which measures the quantity of motion in a body is called	A. force B. energy C. momentum D. power
6	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
7	The expression F x t is called impulse if the time 't' is	A. zero B. very large C. very small D. infinite
8	In the expression F x t, the force F is	A. total force B. instantaneous force C. average force D. all of them
9	The quantity F x t is called as	A. momentum B. velocity C. acceleration D. impulse
10	Rate of change of momentum is called	A. Impulse B. Force C. Torque D. Momentum
11	The SI units of momentum is	A. kg m s^{-2} B. kg ms C. kg m s^{2} D. N-s
12	The direction of the linear momentum is the direction of	A. speed B. velocity C. weight D. none of them
13	Linear momentum is a	A. fixed quantity B. constant quantity C. scalar quantity D. vector quantity
14	The linear momentum of the body is defined as	A. p=ma B. p=1/2ma C. p=mv D. p=1/2mv
15	If the objects of different masses move with the same velocity, then it is more difficult to stop the	A. lighter of the two B. massive of the two C. any one of them D. both of them

16	Earth is considered to be	A. a non-inertial frame B. an inertial frame C. an accelerated frame D. none of the above
17	When a person jumps off the ground, the reaction force of the ground is	A. greater than the weight of the person B. smaller than the weight of the person C. equal to the weight of the person D. zero
18	In equation F=ma, then mass 'm' is	A. rest mass B. variable mass C. inertial mass D. gravitational mass
19	The second law gives the relationship between	A. mass and velocity B. force and acceleration C. velocity and acceleration D. mass and weight
20	Laws of motion are not valid in a system which is	A. inertial B. non-interial C. at rest D. moving with uniform velocity
21	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
22	When a force is applied on a body, several effects are possible Which of the following effect could not occur?	A. the body rotates B. the body speeds up C. the mass of the body decreases D. the body changes its direction
23	For a fixed force, larger is the mass of a body the	A. greater is its acceleration B. smaller is its acceleration C. smaller is its weight D. zero is its acceleration
24	Inertia mass and gravitational mass are	A. opposite B. identical C. identical when there is no friction D. all of them
25	The effect of applying a force on a moving body is to change	A. its direction of motion only B. its speed of motion only C. both the direction and speed of motion D. its inertia only
26	Inertial frame of references are those frame of references which are moving with	A. increasing velocity B. decreasing velocity C. constant velocity D. all of them
27	The mass of the object is a quantities measure of its	A. speed B. velocity C. acceleration D. inertia
28	A 5 kg mass is falling freely, the force acting on, it will be	A. 19.6 N B. 9.8 N C. 5 N D. Zero
29	The discuss used by athlete has a mass of 1 kg, its weight in newton is	A. 9.8 N B. 80 N C. 98 N D. 100 N
30	A mass of 5kg moves with an acceleration of 10m s^{-2} force applied is	A. 10 N B. 50 N C. 2 N D. 20 N