

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

Sr	Questions	Answers Choice
1	Swimming is based on the principle of	A. Newton's 1st law B. Newton's 2nd law C. Newton's 3rd law D. All
2	Newton published laws of motion in his famous book "principia" in	A. 1867 B. 1667 C. 1676 D. 1687
3	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
4	Tick the conservative force:	A. tension in a string B. Air resistance C. Elastic spring force D. Frictional force
5	Unit of impulse in	A. Newton B. Kg m C. Kg m/s D. Joule
6	A body falls freely from rest. It covers as much distance in the last second of its motion as covered in the first three seconds. The body has fallen for a time of	A. 3 s B. 5 s C. 7 s D. 9 s
7	What will be the ratio of the distance moved by a freely falling body from rest in 4th and 5th seconds of journey?	A. 4:5 B. 7:9 C. 16:25 D. 1:1
8	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
9	The magnitude of the displacement is a line from initial position to final position which is	A. straight B. curved C. either be curved or straight D. none of them
10	If the acceleration of a body is negative, then slope of the velocity-time graph will be:	A. Zero B. Positive C. Negative D. Infinity
11	Angular momentum	A. Scalar B. Axial vector C. Polar vector D. At 45 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">° angle</span>
12	Acceleration in a body is always produced in the direction of :	A. Velocity B. Weight C. Force D. Both B and C
13	For maximum linear distance of travel, a projectile must be fired at an angle of	A. 0 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°</span> B. 45 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°</span> C. 90 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°</span> D. 60 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°</span>

14	The dimension of linear inertia is:	A. MLT <sup>2</sup> B. ML <sup>0</sup> T <sup>-2</sup> C. ML <sup>0</sup> T <sup>0</sup> D. MLT <sup>-1</sup>
15	When a body is moving with uniform positive acceleration, the velocity- time graph is a straight line. Its slope is	A. zero B. negative C. positive D. non-existing
16	Acceleration in a body is always produced in the directin of:	A. Velocity B. Weight C. Force D. Botha B and C
17	A certain force gives an acceleration of 2 m/sec2 to a body if mass 5 kg. The same force would give a 29 kg object an acceleration of:	A. 0.5 m/sec2 B. 5 m/sec2 C. 1.5 m/sec2 D. 9.8 m/sec2
18	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
19	If the instantaneous velocity of a body does not change. the body is said to be moving with	A. average velocity B. uniform velocity C. instantaneous velocity D. variable velocity
20	A force of 50 dynes is acted on a body of mass 5 g which is at rest, for an interval of 3 seconds, then impulse is	A. 0.15 x 10 <sup>-3</sup> Ns B. 0.98 x 10 <sup>-3</sup> Ns C. 1.5 x 10 <sup>-3</sup> Ns D. 2.5 x 10 <sup>-3</sup> Ns