

## ECAT Physics Chapter 3 Motion and Force Online Test

Sr	Questions	Answers Choice
1	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
2	Acceleration produced in a body by a 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
3	A non-inertial frame of reference is that frame of reference in which	A. $a < v$ B. $a > v$ or $a < v$ &lt; 0 C. $a = v$ D. none of them
4	An inertial frame of reference is that frame of reference in which	A. $a < v$ B. $a > v$ C. $a = v$ D. all of them
5	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
6	Newton published laws of motion in his famous book "principia" in	A. 1867 B. 1667 C. 1676 D. 1687
7	If the velocity of the body decreases non-uniformly then the slope of the velocity-time graph will have	A. different values B. same values C. zero values D. constant values
8	If the slope of the velocity-time graph increases at constant rate with time, then the body is said to have	A. uniform deceleration B. uniform negative acceleration C. average acceleration D. uniform positive acceleration
9	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
10	The three equation of motions are useful only for	A. linear motion with increasing acceleration B. line motion with uniform acceleration C. linear motion with zero acceleration D. linear motion with varying acceleration
11	A body starting from rest covers a distance of 0.45 Km and acquires a velocity of 300 Km <sup>-1</sup> . its acceleration will be	A. 7.71 m s <sup>-2</sup> B. 0.5m s <sup>-2</sup> C. 0.15m s <sup>-2</sup> D. 0.092m s <sup>-2</sup>
12	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
13	The slopes of the tangent at any point on the curve gives the value of the	A. average velocity at that point B. instantaneous velocity at that point C. average acceleration at that point D. instantaneous acceleration at that point
14	When body moves with increasing acceleration, its velocity time graph is a	A. straight line B. horizontal straight line C. vertical straight line D. none of them

D. curve

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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