ECAT Physics Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	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
2	Root out of the conventional source of energy:	A. Energy from biomass B. Hydroelectric energy C. Geothermal energy D. None of these
3	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 valves D. constant valves
4	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
5	A ball is thrown upwards with a velocity of 100 m/s. It will reach the ground after	A. 10 s B. 20 s C. 5 s D. 40 s
6	Which one of the following is dimensionless:	A. Acceleration B. Velocity C. Density D. Angle
7	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
8	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
9	Blomass includes:	A. Crop residue B. Natural vegetation C. Animal dung D. All of these
10	A dirty carpet is to be cleaned by heating. This is in according with_____law of motion.	A. First B. Second C. Third D. None of these
11	Find the total displacement of a body in 8 seconds starting from rest with an acceleration of 20 cm/s^2	A. 0.064 m B. 640 cm C. 64 cm D. 64 m
12	A body is moving with constant velocity of 10 m/sec in the north east direction. Then its acceleration will be:	A. 10 m/sec2 B. 20 m/sec2 C. 30 m/sec2 D. Zero
13	A body whose momentum is constant must have constant	A. Acceleration B. Velocity C. Force D. None of these
14	Rocket engines lift a rocket from the earth surface, because hot gas with high velocity	A. Push against the air B. React against the rocket and push it up C. Heat up the air which lifts the rocket D. Push against the earth
		A. A body can have zero velocity and still be accelerated B. A body can have a constant

15	Which of the following four statements is false?	velocity and still have a varying speed C. A body can have a constant speed and still have a varying velocity D. The direction of the velocity of a body can change when its acceleration is constant
16	Maximum height of a bullet when fixed at 30 with horizontal is 11 m. Then height when it is fired at 60° is	A. 22 m B. 6 m C. 33 m D. 7.8 m
17	During the upward motion of the projectile, the vertical component of velocity:	A. Decreases B. Increases C. Remains constant D. None of these
18	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
19	The dimension of linear inertia is:	A. MLT² B. ML⁰T⁻² C. ML⁰T⁰ D. MLT⁻¹
20	Swimming is based on the principle of	A. Newton's 1st law B. Newton's 2nd law C. Newton's 3rd law D. All