ECAT Physics Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	A dirty carpet is to be cleaned by heating. This is an accordance with____ law of motion:	A. First B. Second C. Third D. None of these
2	In the expression F x t, the force F is	A. total force B. instantaneous force C. average force D. all of them
3	Which of the following four statements is false?	A. A body can have zero velocity and still be accelerated B. A body can have a constant 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
4	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
5	The horizontal component of a projectile moving with initial velocity of 500 ms^{-1}at an angle 60° to x-axis is	A. 500 ms⁻¹ B. 1000 ms⁻¹ C. 250 ms⁻¹ D. Zero
6	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
7	When we consider the average velocity of a body, then the body is moving in	A. straight line B. curved path C. may be in a straight or curved path D. none of them
8	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
9	Biomass includes:	A. Crop residue B. Natural vegetation C. Animal dung D. All of these
10	Acceleration in a body is always produced in the directin of:	A. Velocity B. Weight C. Force D. Botha B and C
11	By which velocity a ball be projected vertically so that the distance covered by it in 5th seconds is twice the distance it covers in its 6th second ($g=10m/s^2$)	A. 58.8 m/s B. 49 m/s C. 65 m/s D. 19.6 m/s
12	A ball is dropped from a height of 4.2 meters. To what height it will rise if there is no loss of KE after rebounding?	A. 4.2 m B. 8.4 C. 12.6 D. None of these
13	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
		A. Force

14	If m means mass of gases objected per second from a rocket and v shows the change in velocity, than mv is named as:	B. Energy C. work D. impulse
15	If a car rest acceleration uniformly to a speed of 144 km/h in 20 s it covers a distance of	A. 20 m B. 400 m C. 1440 m D. 2880 m
16	A body of weight 1 N has a kinetic energy of 1 joule when its speed is:	A. 1.46 m sec⁻¹ B. 2.44 m sec⁻¹ C. 3.42 m sec⁻¹ D. 4.43 m sec⁻¹
17	To get a resultant displacement of 10 m, two displacement vectors of magnitude 6 m and 8 m should be combined	A. Parallel B. Antiparallel C. At angle 60° D. Perpendicular to each other
18	A body moving with an acceleration of 5 m/sec^{2}started with velocity of 10 m/sec. What will be the distance traversed in 10 seconds?	A. 150 m B. 250 m C. 350 m D. 400 m
19	The product of force and time is called	A. acceleration B. linear momentum C. angular momentum D. impulse
20	When two protons are brought closer potential energy of both of them:	A. Increases B. Decreases C. Remains same D. None of these