

## Physics ECAT Pre Engineering Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	The product of force and time is called change in:	A. Momentum B. Impulse C. Force D. Both a and b
2	The motion of a projectile is	A. one dimension B. two dimension C. three dimension D. all of them
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	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
5	Force is a:	A. Scalar quantity B. Base quantity C. Derived quantity D. None of these
6	A change in position of a body from its initial position to its final position is known as	A. relative motion B. displacement C. distance D. acceleration
7	If the water falls from a dam into a turbine wheel 19.6 m below, then the velocity of water at the turbine, is (Take $g=9.8 \text{ m/s}^2$ )	A. 9.8 m/s B. 19.6 m/s C. 39.2 m/s D. 98.0 m/s
8	Root out the conventional source of energy:	A. Energy from blomass B. hydroelectric energy C. Geothermal energy D. None of these
9	A cold soft drink is kept on the balance. When the cap is opened, then the weight	A. Increases B. Decreases C. First increases, then decreases D. Remains same
10	The artillery shells travel along parabolic paths under the influence of	A. magnetic field B. electric field C. electromagnetic field D. gravitational field
11	If the velocity time graph is a straight line parallel to the time-axis, then it means:	A. The body is moving with uniform velocity B. The body is moving with uniform acceleration C. The body is at rest D. None of these
12	Blomass includes:	A. Crop residue B. Natural vegetation C. Animal dung D. All of these
13	Biomass includes:	A. Crop residue B. Natural vegetation C. Animal dung D. All of these
14	A ball of mass m moving with uniform speed collides elastically with another stationary ball. The incident ball will lose maximum kinetic energy when mass of the stationary ball is	A. m B. 2 m C. 4 m D. Infinity
15	If a train traveling at 72 kmph is to be brought to rest in a distance of 200 meters then its retardation should be	A. 20 ms <sup>-2</sup> B. 10 ms <sup>-2</sup> C. 2 ms <sup>-2</sup>

		D. 1 ms <sup>-2</sup>
		A. deceleration
16	The decrease in velocity per unit time is called	B. acceleration
10		C. uniform acceleration
		D. variable acceleration
	A typical rocket ejects the burnt gases at speeds over	A. 400 ms <sup>-1</sup>
17		B. 40000m s <sup>-1</sup>
17		C. 40000 ms <sup>-1</sup>
		D. 60000 ms <sup>-1</sup>
	The time of flight of a projectile motion equal to	A. half of the time to reach maximur height
		B. twice the time to reach maximum
18		height
. •		C. one fourth of time to reach
		maximum height
		D. time to reach maximum height
	A body of weight 1 N has a kinetic energy of 1 joule when its speed is:	A. 1.46 m sec <sup>-1</sup>
10		B. 2.44 m sec <sup>-1</sup>
19		C. 3.42 m sec <sup>-1</sup>
		D. 4.43 m sec <sup>-1</sup>
	A ball is dropped downwards After 1 second another ball is dropped downwards from the	A. 25 m
20		B. 20 m
20	same point. What is the distance between them after 3 seconds	C. 50 m
		D. 9.8 m