

## Physics ECAT Pre Engineering Chapter 3 Motion and Force

Sr	Questions	Answers Choice
1	The motion of a body in a straight line is the motion in	A. one dimension B. two dimension C. three dimension D. four dimension
2	Which one of the following is dimensionless:	A. Acceleration B. Velocity C. Density D. Angle
3	The motion in a plane is the motion in	A. one dimension B. two dimension C. three dimension D. four dimension
4	Earth is considered to be	A. a non-inertial frame B. an inertial frame C. an accelerated frame D. none of the above
5	Root out of the conventional source of energy:	A. Energy from biomass B. Hydroelectric energy C. Geothermal energy D. None of these
6	The SI units of momentum is	A. kg m s <sup>-2</sup> B. kg ms C. kg m s <sup>2</sup> D. N-s
7	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
8	In the above figures, tell which set is graphs shows that a body is moving uniform velocity:	A. (i) and (ii) B. (ii) and (iii) C. (i) and (iii) D. (ii) and (iv)
9	The effect of applying a force on a moving body is to change	A. its direction of motion only B. its speed of motion only C. both the direction and speed of motion D. its inertia only
10	At the top of the trajectory of a projectile the acceleration is	A. The maximum B. The minimum C. Zero D. g
11	In an elevator moving vertically up with an acceleration 'g' the force exerted on the floor by a passenger of mass M is	A. Mg B. 1/2 Mg C. Zero D. 2 Mg
12	Swimming becomes possible because oflaw of motion:	A. First B. Second C. Third D. None of these
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	During the upward motion of the projectile, the vertical component of velocity:	A. Decreases B. Increases C. Remains constant
15	A the top of the trajectory of a projectile, the directions of its velocity and acceleration are	D. None of these  A. Perpendicular to each other B. Parallel to each other C. Inclined to each other at an angle of 45 <span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; for size: small;">°</span> D. Anitparallel to each other
16	A lift is descending at a constant speed V. A passenger in the lift drops a coin. The acceleration of the coin towards the floor will be	A. Zero B. g
		Cg
		D. <b>V</b> + g
	A car travels first half distance between two places with a speed of 30 km/h and remaining half with a speed of 50 km/h. The average speed of the car is	A. 37.5 km/h
17		B. 10 km/h
17		C. 42 km/h
		D. 40 km/h
18	When a body is moving on a surface, the force of friction is called	A. Static friction
		B. Dynamic friction
		C. Limiting friction
		D. Rolling friction
	One KWh is equal to:	A. 3.6 x 10 <sup>2</sup> J
19		B. 3.6 KJ
19		C. 3,6 x 10 <sup>1</sup> KJ
		D. 3,6 MJ
20	A mass of 5kg moves with an acceleration of 10m s <sup>-2</sup> force applied is	A. 10 <b>N</b>
		B. 50 <b>N</b>
		C. 2 <b>N</b>
		D. 20 <b>N</b>