

Physics ECAT Pre Engineering Chapter 3 Motion and Force Online Test

Sr	Questions	Answers Choice
1	One KWh is equal to:	A. 3.6×10^{22} J B. 3.6 KJ C. 3.6×10^{17} KJ D. 3.6 MJ
2	The velocity given to a body to go out of the influence of earth's gravity is known as:	A. Terminal velocity B. Orbital velocity C. Escape velocity D. None of these
3	When two protons are brought closer potential energy of both of them:	A. Increases B. Decreases C. Remains same D. None of these
4	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}
5	Tick the conservation force:	A. Tension in a string B. Air resistance string C. Elastic spring force D. Frictional force
6	Work done along a closed path in a gravitational field is:	A. Maximum B. Minimum C. Zero D. Unity
7	A body whose momentum is constant must have constant	A. Acceleration B. Velocity C. Force D. None of these
8	Swimming is based on the principle of	A. Newton's 1st law B. Newton's 2nd law C. Newton's 3rd law D. All
9	If rope of lift breaks suddenly. The tension exerted by the surface of lift is (a =Acceleration of lift)	A. mg B. $m(g+a)$ C. $m(g-a)$ D. 0
10	A body of mass 1.0 kg is falling with an acceleration of 10 m/s^2 . Its apparent weight will be ($g=10 \text{ m/s}^2$)	A. 1.0 kg wt B. 2.0 kg wt C. 0.5 kg wt D. Zero
11	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
12	A railway engine (mass 10^4 kg) is moving with a speed of 73 km/h. The force which should be applied to bring it to rest over a distance of 20 m is	A. 3,600 N B. 7,200 N C. 10,000 N D. 100,000 N
13	When a horse pulls a cart, the force that makes the horse run forward is the force exerted by	A. The horse on the ground B. The horse on the cart C. The ground on the horse D. The ground on the cart
14	When a bicycle is in motion, the frictional forces exerted by the ground are	A. In the forward direction on both the wheels B. In the backward direction on both the wheels C. In the forward direction on the front wheel and the backward direction on the rear wheel D. In the backward direction on the front wheel and the forward direction on the rear wheel

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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. $2 Mg$