Physicsaholics

DPP - 3

Video Solution on Website:- https://physicsaholics.com/home/courseDetails/42

Video Solution on YouTube:- https://youtu.be/IROdXA8sXzY

Q 1. Statement: The only way to slow down a moving object is to apply a net force to it.

(a) True (b) False

Q 2. A rider on horse back falls when horse starts running all of a sudden because:

(a) Rider is taken back
(b) Rider is suddenly afraid of falling
(c) Inertia of rest keeps the upper part of body at rest whereas lower part of the body moves forward with the horse.
(d) None of the above.

Q 3. A boy sitting on the topmost berth in the compartment of a train which is just going to stop on a railway station, drops an apple aiming at the open hand of his brother sitting vertically below his hands at a distance of about 2 meter. The apple will fall:

(a) Precisely on the hand of his brother
(b) Slightly away from the hand of his brother in the direction of motion of the train
(c) Slightly away from the hand of his brother in the direction opposite to the direction of motion of the train
(d) None of the above.

Q 4. Statement: Objects in orbit around the Earth (like a satellite) must have a net force acting on them.
(a) True (b) False

Q 5. Which of Newton's Laws gives the reason for why you can feel things that you touch?

(a) First Law (b) Second Law
(c) Third Law (d) None of these

Q 6. You and a friend are pulling on a rope in opposite directions as hard as you can. What is the "equal and opposite force" to the force of your hand pulling on the rope described by Newton's Third Law?

(a) The force of your arm pulling back on your hand
(b) The force of your friend pulling on the rope in the opposite direction
(c) The force of the rope pulling on your hand in the opposite direction
(d) The force of the rope pulling your friend's hand

Q 7. A book is lying on the table. What is the angle between the action of the book on the table and the reaction of the table on the book:

(a) 0^0 (b) 30^0
(c) 45^0 (d) 180^0

Q 8. Action and reaction forces act on:

(a) The same body
(b) The different bodies
(c) The horizontal surface
(d) Nothing can be said

Q 9. You are on a frictionless horizontal plane. How can you get off if no horizontal force is exerted by pushing against the surface:
(a) By jumping
(b) By spitting or sneezing
(c) By rolling your body on the surface
(d) By running on the plane

Q 10. Statement: An object's inertia causes it to come to a rest position.

(a) True (b) False

Answer Key

Q.1 a	**Q.2 c**	**Q.3 b**	**Q.4 a**	**Q.5 c**
Q.6 c	**Q.7 d**	**Q.8 b**	**Q.9 b**	**Q.10 b**