

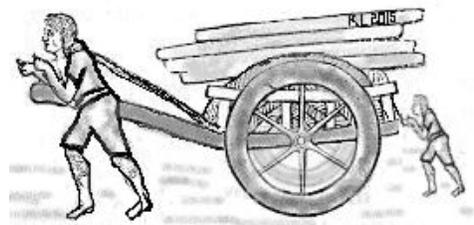
1. _____ is the tendency of an object to resist a change in motion.
 - A. Gravity
 - B. Force
 - C. Inertia
 - D. Mass

2. "An object at rest will stay at rest unless acted upon by an unbalanced force" is an example
 - A. Newton's 1st Law
 - B. Newton's 2nd Law
 - C. Newton's 3rd Law
 - D. Newton's Gravitation Law

3. Inertia is
 - A. a property of matter
 - B. a type of force
 - C. the speed of an object
 - D. resistance to change in motion

4. A man pulls a cart with a forward force of 500N, while his son pushes with a force of 100N. The resultant force on the cart is

- A 600N in the backward direction
- B 400N in the forward direction
- C 600 N in the forward direction
- D 400 N in the backward direction



5. X, Y and Z are three objects with masses 100 kg, 50kg and 75 kg respectively, then
 - A. All will have the same inertia
 - B. X will have the greatest inertia
 - C. Y will have the greatest inertia
 - D. Z will have the greatest inertia

6. The resultant of balanced forces is
 - A. non zero
 - B. equal to zero
 - C. equal to mass X acceleration
 - D. equal to the acceleration produced in the body

18. The physical quantity, which is the measure of inertia, is
 - A. density
 - B. weight
 - C. force
 - D. mass

19. The S.I. unit of force is
- A. kilogram
 - B. joule
 - C. newton
 - D. watt
20. A force of 10N acting on a mass of 1kg that is free to causes
- A. a velocity of 10 ms^{-1}
 - B a speed of 10 ms^{-1}
 - C. an acceleration 10 ms^{-2}
 - D. an acceleration of 0.1 ms^{-2}
- 21 When an object is thrown upward, the force of gravity
- A is constant and opposite to the direction of motion
 - B is constant and in the same direction as the direction of motion
 - C decreases to zero at the highest point
 - D increases to a maximum at the highest point
22. The acceleration in a body is due to
- A. a balanced force
 - B. an unbalanced force
 - C. its speed
 - D. its velocity
23. An object undergoing acceleration always
- A. a decrease in speed
 - B. an increase in velocity
 - C. an increase in speed
 - D. a change in velocity.
13. An example for a vector quantity is
- A. speed
 - B. velocity
 - C. distance
 - D. length
14. Which of Newton's laws best explains why motorists should buckle-up?
- A. the first law
 - B. the second law
 - C. the third law
 - D. the law of gravitation
15. Which of Newton's laws best explains why bricks are strapped onto a truck during transport?
- A. the first law
 - B. the second law
 - C. the third law
 - D. the law of gravitation

16. A ball is thrown up and attains a maximum height of 20 m. Its initial speed was
- A. 10 ms^{-1}
 - B. 200 ms^{-1}
 - C. 20 ms^{-1}
 - D. 2 ms^{-1}
17. When you sit on a stationary chair, the resultant force on you is
- A. zero
 - B. up
 - C. down
 - D. depends on your weight.
24. In the absence of an external force, a moving object will
- A. stop immediately
 - B. slow down and eventually come to a stop
 - C. go faster and faster
 - D. move with constant velocity
25. When the rocket engines on a starship are suddenly turned off, while traveling in empty space, the starship will
- A. stop immediately
 - B. slow down, and then stop.
 - C. go faster and faster
 - D. move with constant speed