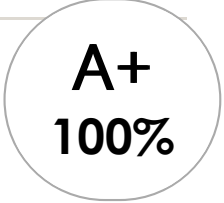


23 Multiple choice questions



A+
100%

1. a fundamental physical quantity; a measure of the amount of matter or inertia
 - a. motion
 - b. **CORRECT: mass**
 - c. metre
 - d. work

2. the product of mass and velocity of a moving body
 - a. metre
 - b. **CORRECT: momentum**
 - c. motion
 - d. Newton

3. energy can neither be created nor destroyed but only changed in form
 - a. **CORRECT: law of conservation of energy**
 - b. law of conservation of momentum
 - c. potential energy
 - d. kinetic energy

4. the force of gravity on an object
 - a. metre
 - b. **CORRECT: weight**
 - c. Newton
 - d. vector

5. the product of force and displacement parallel to the force
 - a. Newton
 - b. **CORRECT: work**
 - c. mass
 - d. metre

6. that single force which would have the same effect as two or more forces applied to the same point
 - a. metre
 - b. vector
 - c. resultant
 - d. **CORRECT: resultant force**

7. the breaking down of a vector into its components
 - a. resultant
 - b. **CORRECT: resolution of vectors**
 - c. resultant force
 - d. vector

8. the study of motion without examining the causes; the description of motion
 - a. Newton
 - b. motion
 - c. **CORRECT: kinematics**
 - d. mass

9. forces in ropes, strings, wires, cables, etc.
 - a. Newton
 - b. motion
 - c. vector
 - d. **CORRECT: tension**

10. if one body exerts a force on a second body, the second body exerts the same force back on the first body; to every action there is an equal and opposite reaction
 - a. Newton's Second Law
 - b. **CORRECT: Newton's Third Law**
 - c. Newton
 - d. Newton's First Law

11. the SI unit of force; it is that force which will accelerate a mass of 1 kg at 1 m.s
- CORRECT: Newton**
 - tension
 - motion
 - vector
12. a fundamental unit of length; it is equal to the distance travelled by light in a vacuum in the fraction $1/299,792,458$ of a second
- mass
 - motion
 - work
 - CORRECT: metre**
13. change in position relative to an observer
- tension
 - CORRECT: motion**
 - metre
 - Newton
14. that single vector which has the same effect as a number of other vectors; the vector sum of a number of vectors
- resultant force
 - vector
 - Newton
 - CORRECT: resultant**
15. in the absence of external forces, the sum of the momenta before the collision is equal to the sum of the momenta after the collision
- resolution of vectors
 - law of conservation of energy
 - CORRECT: law of conservation of momentum**
 - momentum

16. a quantity that needs both a size and a direction to describe it fully and which obeys special laws of addition
- metre
 - Newton
 - CORRECT: vector**
 - tension
17. a quantity that can be represented completely, purely by a number
- vector
 - mass
 - speed
 - CORRECT: scalar**
18. the acceleration of an object is directly proportional to the resultant force acting on it and inversely proportional to its mass
- Newton
 - Newton's First Law
 - Newton's Third Law
 - CORRECT: Newton's Second Law**
19. the time rate of change of displacement
- CORRECT: velocity**
 - weight
 - vector
 - tension
20. time rate of change of distance
- mass
 - scalar
 - CORRECT: speed**
 - metre

21. energy of motion
- kinematics
 - CORRECT:** kinetic energy
 - motion
 - potential energy
22. a body will remain at rest or travel with constant velocity unless acted upon by an unbalanced force
- Newton
 - Newton's Third Law
 - Newton's Second Law
 - CORRECT:** Newton's First Law
23. energy due to position or configuration; stored energy
- CORRECT:** potential energy
 - tension
 - kinetic energy
 - motion