

1. What is the unit of force?

- A. Newton
- B. Joule
- C. Watt
- D. Pascal

2. Which of these is Newton's Third Law of Motion?

- A. Every action has an equal and opposite reaction.
- B. Force equals mass times acceleration.
- C. An object at rest stays at rest unless acted upon.
- D. Energy cannot be created or destroyed.

3. If the mass of an object is 10 kg and the acceleration is  $5 \text{ m/s}^2$ , what is the force?

- A. 2 N
- B. 15 N
- C. 50 N
- D. 100 N

4. Which type of energy is associated with motion?

- A. Potential energy
- B. Kinetic energy
- C. Thermal energy
- D. Chemical energy

5. What happens to an object's gravitational potential energy as it is lifted higher?

- A. It decreases
- B. It increases
- C. It remains the same
- D. It converts to kinetic energy

6. Which law states that energy cannot be created or destroyed?

- A. Law of Inertia
- B. Law of Acceleration
- C. Law of Conservation of Energy

- D. Law of Universal Gravitation

7. If a car accelerates from 0 to 20 m/s in 4 seconds, what is its acceleration?

- A. 5 m/s<sup>2</sup>
- B. 10 m/s<sup>2</sup>
- C. 15 m/s<sup>2</sup>
- D. 20 m/s<sup>2</sup>

8. What type of friction occurs between a moving object and the air?

- A. Static friction
- B. Kinetic friction
- C. Rolling friction
- D. Air resistance

9. Which of these quantities is a vector?

- A. Speed
- B. Distance
- C. Mass
- D. Force

10. What does the work done by a force depend on?

- A. Only the force applied
- B. Only the distance moved
- C. The force applied and the distance moved
- D. The time taken