

CHAPTER-8 | Force and Laws of Motion

QUIZ
PART-02

1. The tendency of a body to resist change in motion is called:

- A. Force
- B. Inertia
- C. Momentum
- D. Speed (B)

Explanation: Inertia resists changes in motion.

2. Newton's first law is known as:

- A. Law of inertia
- B. Law of action
- C. Law of momentum
- D. Law of acceleration (A)

Explanation: Newton's first law is called the law of inertia.

3. Inertia of rest prevents an object from:

- A. Moving
- B. Stopping
- C. Changing direction
- D. Speeding up (A)

Explanation: Inertia of rest prevents motion unless acted upon.

4. A person falls backward when a bus starts due to:

- A. Inertia of motion
- B. Inertia of rest
- C. Friction
- D. Momentum (B)

Explanation: The person resists the motion of the bus.

5. The momentum of an object depends on:

- A. Mass
- B. Velocity
- C. Mass and velocity
- D. None of these (C)

Explanation: Momentum is the product of mass and velocity.

6. The SI unit of momentum is:

- A. kg
- B. m/s
- C. kg·m/s
- D. m^2/s (C)

Explanation: Momentum is measured in kg·m/s.

7. A larger mass moving with the same velocity has:

- A. Less momentum
- B. More momentum
- C. No momentum
- D. Same momentum (B)

Explanation: More mass means more momentum.

8. Newton's first law explains:

- A. Force
- B. Motion
- C. Inertia
- D. Acceleration (C)

Explanation: The first law describes inertia, resistance to change in motion.

9. Which object has more momentum at the same velocity?

- A. Bicycle
- B. Car
- C. Bus
- D. Person (C)

Explanation: The bus has more momentum due to its larger mass.

10. A body stays in motion due to:

- A. Force
- B. Inertia
- C. Friction
- D. Speed (B)

Explanation: Inertia keeps a body in motion unless acted upon by an external force.