

Question Paper

Topic 1: Mechanics

Q1. Which of the following best describes acceleration?

- A. Speed at a given point
- B. Rate of change of velocity
- C. Distance traveled in a given time
- D. Force acting on an object

Answer: B. Rate of change of velocity

Explanation: Acceleration is the rate of change of velocity with respect to time. It can be in the form of speeding up, slowing down, or changing direction.

Q2. What is the unit of measurement for force?

- A. Meters
- B. Newtons
- C. Kilograms
- D. Joules

Answer: B. Newtons

Explanation: Force is measured in the SI unit called Newtons (N). One Newton is defined as the force required to accelerate a mass of one kilogram at a rate of one meter per second squared.