



The main constituent of cosmic ray is

- (A) proton
- (B) meson
- (C) alpha particle
- (D) neutrino

The correct answer is: **(A) proton**

Explanation:

Cosmic rays are high-energy particles that originate from outer space and strike the Earth's atmosphere. Their **main constituent** is:

- **Protons** (hydrogen nuclei), which make up about **90%** of primary cosmic rays.
- **Alpha particles** (helium nuclei) account for about **9%**.
- The remaining ~1% includes **heavier nuclei, electrons**, and a tiny amount of **antiparticles**.

Other particles like **mesons** and **neutrinos** are produced **secondarily** when primary cosmic rays (mostly protons) interact with atoms in the Earth's atmosphere.