Name-Vishakha Muralidhar Shinde Qualification -Msc (physics) Subject -Physics

What is physics?

physics, <u>science</u> that deals with the structure of matter and the interactions between the fundamental <u>constituents</u> of the <u>observable universe</u>

Physics is a fundamental natural science that seeks to understand the universe, from the smallest particles to the largest structures, by studying matter, motion, energy, and force, and the interactions between them.

Mechanics:

Deals with the motion of objects and the forces that cause it, including Newtonian mechanics (describing everyday motion) and relativistic mechanics (dealing with high speeds and strong gravity).

Thermodynamics:

Studies the relationship between heat, work, and energy, and how they are transferred and transformed.

Electromagnetism:

Explores the interactions between electric charges and magnetic fields, including topics like electricity, magnetism, and light.

Optics:

Investigates the behavior and properties of light, including phenomena like reflection, refraction, and diffraction.

Acoustics:

Studies the nature of sound, including its production, transmission, and perception.

Importance of physics: Studying physics is important because it provides a foundation for understanding the universe, develops crucial problem-solving skills, and opens doors to diverse career paths and technological advancements.