

Class XI Physics NOTES

- **For example**, the same law of gravitation given by Newton accounts for (i) fall of an apple to the ground (ii) motion of satellites around the planets (iii) motion of planets around the sun. Similarly, the basic laws of electromagnetism in the form of Maxwell's equations explain all the electric and magnetic phenomena.

REDUCTIONISM

Reductionism means attempting to derive the properties of a bigger, more complex system from the properties of its constituent simpler parts.

- **For example**, the subject of thermodynamics deals with bulk systems in terms of macroscopic quantities like temperature, pressure, internal energy, entropy etc. The later development of kinetic theory and statistical mechanics interpreted these quantities in terms of the properties of the molecular constituents of the bulk system. For example, temperature of the bulk system was related to the average kinetic energy of the molecules of the system.

PARTS OF PHYSICS

Basically there are two parts of physics.