1.0 Fundamentals of Metal Technology

1.1 Introduction to Metal Technology

1.1.1 Definition of Terms in Metal Technology

Understanding the terms is the foundation of learning Metal Technology. Below are the key terms explained simply:

- **Metal** – A solid material, usually hard, shiny, and malleable, that can conduct heat and electricity.
    - **Examples:** Iron, Steel, Aluminium, Copper, Brass, Bronze.
- **Metal Technology** – The study and practice of working with metals to produce useful products and structures.
    - **Example:** Making doors, chairs, gates, and kitchen utensils.
- **Material** – Any substance used to make objects. Metals, wood, plastics, and ceramics are examples.
    - **Example:** Steel sheet used for roofing.
- **Tools** – Instruments used to perform specific tasks in metal work.
    - **Examples:** Hammer, Screwdriver, Pliers, Hacksaw, Files.
- **Machines** – Mechanized devices that make metalworking faster and more precise.
    - **Examples:** Lathe machine, Welding machine, Drilling machine, Grinding machine.
- **Personal Protective Equipment (PPE)** – Equipment worn to protect oneself from injury while working in a workshop.
    - **Examples:** Safety goggles, Gloves, Apron, Ear muffs, Safety boots.
- **Workshop** – A place equipped with tools and machines for metalworking.
    - **Examples:** School metal workshop, Fabrication workshop, Engineering workshop.

1.1.2 Importance of Studying Metal Technology

Studying Metal Technology opens career opportunities, develops practical skills, and contributes to community development.

- **Career Opportunities**:
    - Fitter and machinist