

CHAPTER – 12

ELECTRICITY AND CIRCUITS

- **Electricity:** It is a flow of electric current.
- **Electric Current:** The electric current flows around by **Electric Circuit**.
- **Electric Circuit:** In a closed electric circuit, the electric current passes from one terminal of the electric cell to the other terminal.
- **Circuit Diagram:** It is a symbolic representation of the electric circuit.
- **Component of Electricity:**
 - (i) **Connecting wires:** Help to conduct the electric current and complete the circuit.
 - (ii) **Bulb:** Lights up when an electric current flows through it. An electric bulb has a filament that is connected to its terminals. An electric bulb glows when electric current passes through it.
 - (iii) **Switch:** Switch is a simple device that is used to either break the electric circuit or to complete it. When a switch is on, a gap in the circuit is bridge by a conducting material through which the current flows.
 - (iv) **Electric cell:** An electric cell has two terminals; one is called positive (+ ve) while the other is negative (– ve).
- Connecting wires, bulb, switch and electric cell is used in Torch, Battery, LED (Light Emitting Diode), etc.
- Electric current is carried by **Conductor**.
- **Conductor:** Materials that allow electric current to pass through them. All metals are good conductors of electricity. Carbon is the only non-metal which is a good conductor of electricity.
- Electric current is stopped by **Insulators**.
- **Insulators:** Materials which do not allow electric current to pass through them. Example: plastic, rubber, wood, glass, polythene, PVC, etc.

