# **CHAHAL COACHING CENTRE -C3**

## Class 7th Chapter 10 (Electric current and its effects)

## 1. Symbols of Electric Current:

- Electric current is represented by the symbol 'I' in equations.
- Unit of electric current is Ampere (A).

| S.No. | Electric component       | Symbol  |
|-------|--------------------------|---------|
| 1.    | Electric cell            | 2/14    |
| 2.    | Electric bulb            |         |
|       |                          |         |
| 3.    | Switch in 'ON' position  |         |
|       | - 9                      |         |
| 4.    | Switch in 'OFF' position |         |
| 5.    | Battery                  |         |
|       | 1-11-1-12-               | ⊣r···I⊩ |
| 6.    | Wire                     |         |
|       |                          |         |

# 2. Battery:

- A battery is a device that provides a source of electric potential difference (voltage).
- It consists of two or more cells connected in series or parallel.

## 3. Heating Effect of Electric Current:

- When current passes through a conductor, it generates heat due to resistance.
- This effect is used in devices like electric heaters, toasters, and incandescent bulbs.

#### 4. Fuse:

- A fuse is a safety device used to protect circuits from excessive current.
- It contains a thin wire that melts when current exceeds a certain value, breaking the circuit and preventing damage.

#### **5. Magnetic Effect of Electric Current:**

- When electric current flows through a conductor, it creates a magnetic field around it.
- The direction of the magnetic field can be determined using the right-hand rule.

#### 6. Electromagnet:

- An electromagnet is a temporary magnet created by passing current through a coil of wire wound around a magnetic core.
  - Used in various applications, such as doorbells, cranes, and MRI machines.

#### 7. Electric Bell:

- An electric bell consists of an electromagnet, a hammer, and a bell.
- When the circuit is closed, the electromagnet attracts the hammer, which strikes the bell and produces sound.