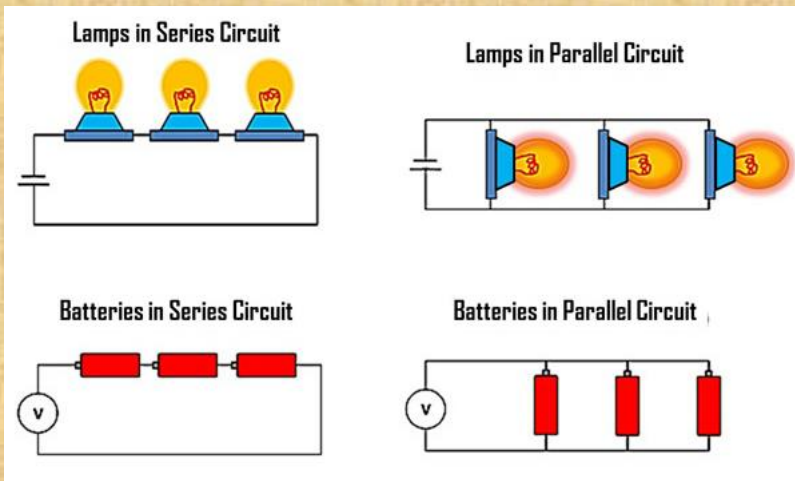


CHAPTER 07

ELECTRICITY

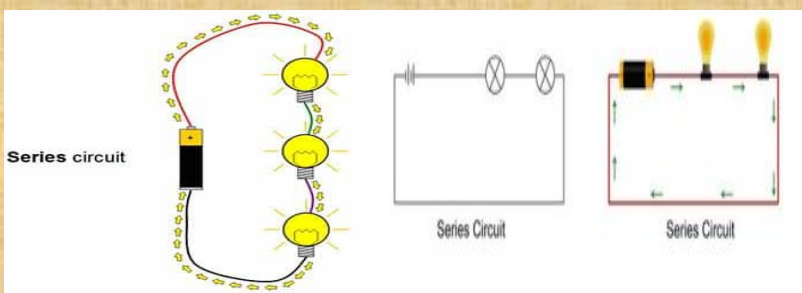
Circuits

Circuits containing one battery and one load are simple to understand and analyze. Practically two or more components or electric devices in a circuit connected in two basic ways. They connect in series or parallel manner.



Series circuits

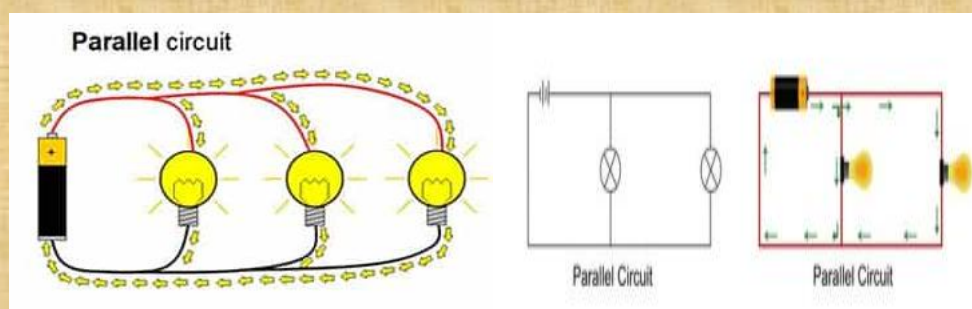
Series circuits have simple designs that are easy to understand. They have only one path through which current flow. The flow of current is same throughout all the components in the circuit. If any fault happens in the circuit, the current will not flow through the circuit and will be incomplete. All the components in series circuits are connected end-to-end, forming a single path for current flow.



Pictorial representation of series circuits

Parallel circuits

In parallel circuits, there are two or more paths for the current to flow. All the components have various branches for current flow. The flow of current is not same throughout the circuit. In a parallel circuit, if any one component damaged, the current does not stop and continues to flow through the other components and work efficiently.



Pictorial representation of parallel circuits

Series circuits

All the components arranged in a single line.

The flow of current is same throughout all the components in the circuit.

If fault occurs at one point, the total circuit will break.

Parallel circuits

All components arranged parallel to each other.

There are two or more paths for the current to flow.

If any one component damaged the current, flow does not stop and continues to flow through other components.