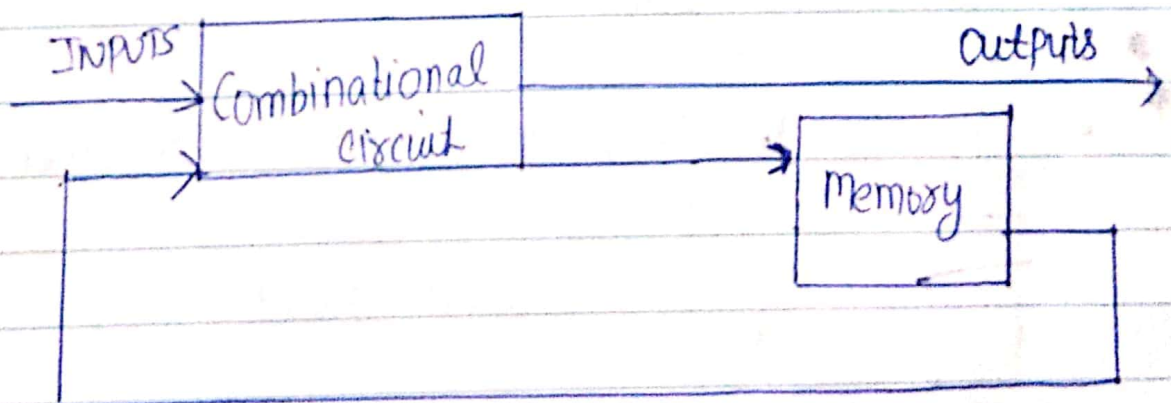


# Sequential Logic Circuits

- The sequential circuit is a special type of circuit that has a series of inputs and outputs.
- The output of the sequential circuits depend on both the combination of present inputs and previous output.
- The Previous output is treated as the present state.

formal definition :- In sequential circuits, the present output depends on the present input as well as past output/outputs.

Block Diagram:-



Types of Sequential Circuits

- Asynchronous sequential circuits
- Synchronous sequential circuits.

## Types of Sequential Circuits

Asynchronous Sequential circuit

Synchronous Sequential circuit

### (i) Asynchronous Sequential circuit

- The sequential circuit whose output depends on the sequence in which the input changes is called asynchronous sequential circuit.
- In this type events can occur only after one event is completed - and there is no waiting for the timing pulse.
- The clock signals are not used in this. and
- The asynchronous circuit do not use clock pulses.

### (ii) Synchronous Sequential circuit

In this, a clock pulse generator is used to provide regular timing pulses. The output is change affect with respect to active transition of clock signal.