

Section - 03

Q.1

Ans:-

Synchronous Counters

Asynchronous Counters

① In Synchronous Circuits memory elements are clocked flip-flops.

In asynchronous circuit memory elements are either unlocked flip flop or time delay elements.

② In Synchronous circuit the change in input signal can affect memory element upon activation of clock signal.

In this, change in input signal can affect memory element at any instant of time.

③ The maximum operating speed of clocks depends on time involved.

Because of absence of clocks, asynchronous circuit can operate faster than synchronous circuit.

④ Easier to design.

difficult to design.

Mealy Model

Moose Model

① its output is a function of present input as well as present state.

its output is the function of present state only.

② it requires less number of states for implementing same function.

it requires more number of states for implementing same function.