Synchronous Counte

- In a *synchronous counter, also known as a parallel count* .
- All the flip-flops in the counter change state at the same time in synchronism with the input clock signal.
- The clock signal in this case is simultaneously applied to the clock inputs of all the flip-flops.
- The delay involved in this case is equal to the propagation delay of one flip-flop only,
- The delay is independent of the size of the counter.

Count	Q_3	Q_2	Q_1	Q_0
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1
0	0	0	0	0