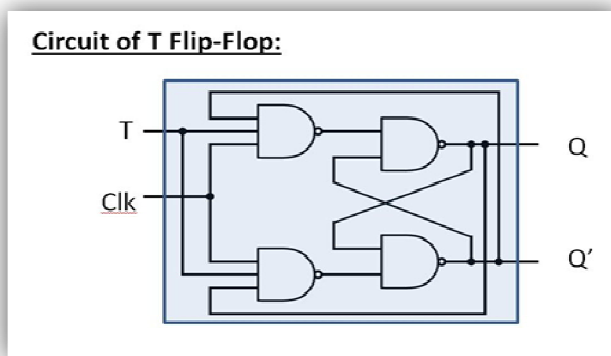
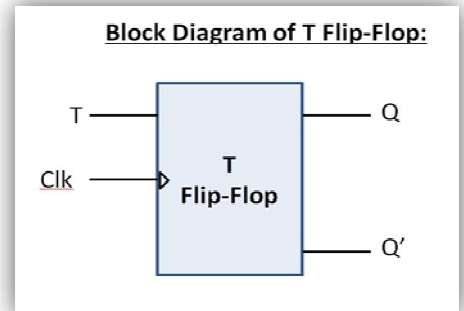


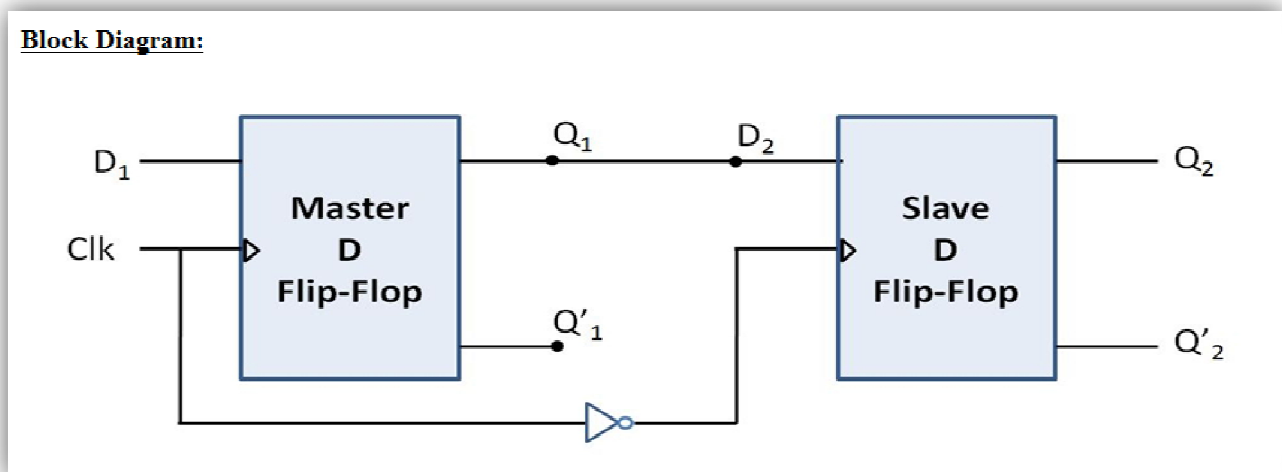
T (Toggling) Flip-Flop: T Flip-Flop is a slight modification of JK Flip-Flop. The T input to this Flip-Flop is sole input and is distributed to create a set of two necessary inputs. This management disables the differing input combinations like [0,1] or [1,0] and only "NO CHANGE" & "TOGGLE" outputs are evaluated.



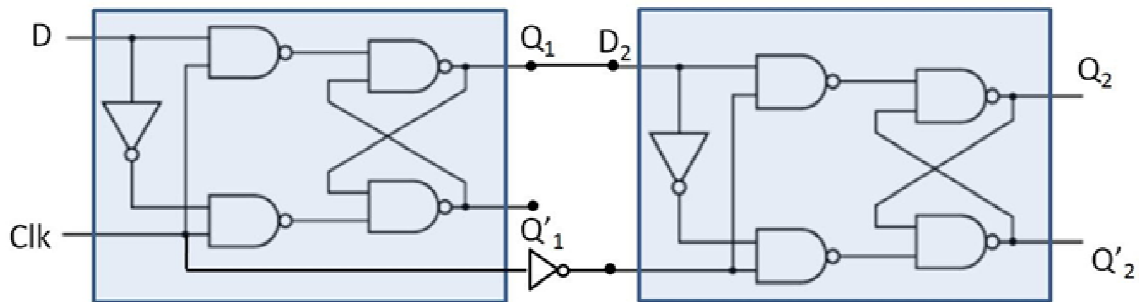
Truth Table:

Clk	T	Q
0	X	X
1	0	Q
1	1	Q'

Edge Triggering: Edge-Triggering is nothing but a technology through which at least two Flip-Flops can be connected to work on different clock pulses respectively. The First Flip-Flop that gets normal Clock pulse is called a MASTER FLIP-FLOP while the other getting inverted Clock pulse is called a SLAVE FLIP-FLOP. This entire combination is often termed as MASTER-SLAVE FLIP-FLOP.



Circuit Diagram:



In these diagrams we clearly see that the clock is inverted for the second flip-flop. This results in the way that only one flip flop works at a time and the working flip flop is termed as master whereas the other is called slave.

Exercise:

1. What is edge triggering?
2. Differentiate between master and Slave flip flops.