

## Flip-Flop Types, Conversion and Applications

The flip-flops are basically the circuits that maintain a certain state unless and until directed by the input for changing that state. We can construct a basic flip-flop using four-NOR and four-NAND gates.

In this section, we will take a look at the Flip-Flops and their Types according to the GATE Syllabus for CSE (Computer Science Engineering). Read ahead to learn more.

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## What are Flip-Flops?

The flip-flops are basically the circuits that maintain a certain state unless and until directed by the input for changing that state. We can construct a basic flip-flop using four-NOR and four-NAND gates.

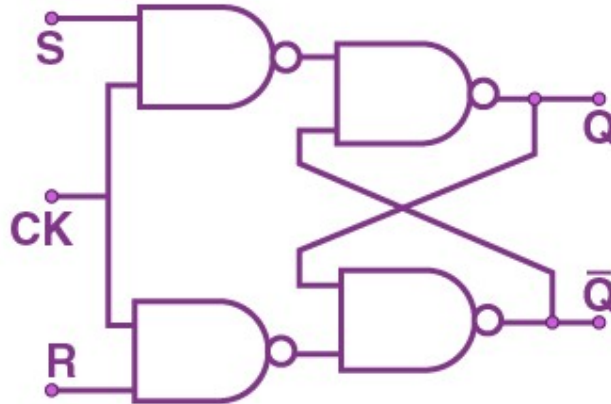
## Types of Flip-Flops

The flip-flops are of the following types:

1. S-R Flip Flop
2. J-K Flip Flop
3. T Flip Flop
4. D Flip Flop

Next page, you can find the logic diagrams along with the truth tables of all the various types of flip-flops:

## S-R Flip Flop



Truth Table

S	R	$Q_N$	$Q_{N+1}$
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	0
1	0	0	1
1	0	1	1
1	1	0	-
1	1	1	-