* Latch

A latch is a special type of logical circuit. The latches have low and High two stable states.

It is also known as bistable-multivibrator.

Based on the enable signal, the circuit works in two states.

- When the enable input is high, the both inputs are low.
- When the enable input is low, both the inputs are high.

- ## Basic RS Latch

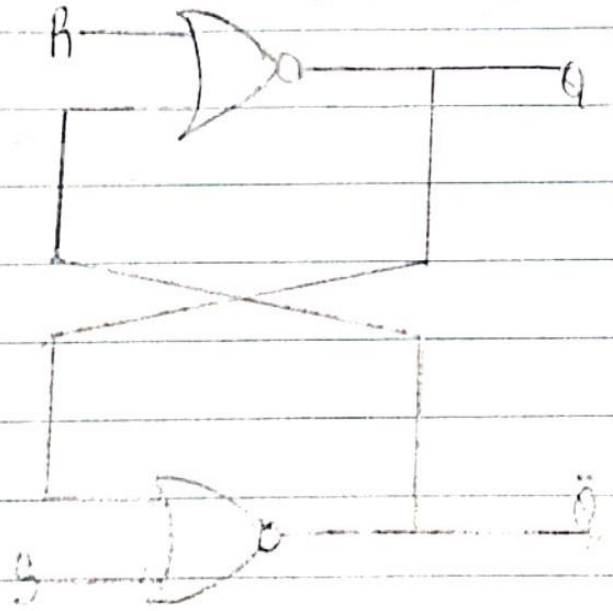
- RS latch have two inputs, S and R.
  S is called set.
  R is called reset.

- The RS Latch design by connecting two NOR gates with a cross loop connection

- The S input is used to produce High on Q.
  The R input is used to produce Low on Q.

- Q' is complementary output of Q, so it always holds the opposite value of Q.

- The output of the S-R Latch depends on current as well as pervious inputs.
  And its state (value stored) can change as soon as its inputs change.



There are various types of Latches :-

- D Latch
- JK Latch
- T Latch