# Lab Manual # 10

**OBJECTIVE:** To understand how a latch works to hold the data and set and reset states.

**NOTE:** Properly label the inputs and outputs in circuit diagrams & in timing diagrams

## Lab Task 1:

Implement the combinational circuit of S'R' Latch on logic works using NAND gates and make the truth table.

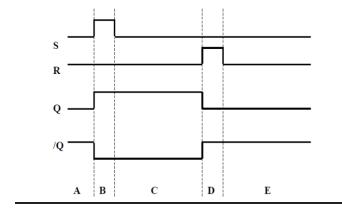
Show the timing diagram also on logic works.

### Lab Task 2:

Implement the combinational circuit of **SR Latch** on **logic works** using **NOR** gates and make the **truth table**.

Show the timing diagram also on logic works.

### **Timing Diagram:**



## Lab Task 3:

Implement the combinational circuit of S'R' Latch with Control input on logic works and make the truth table.

Show the timing diagram also on logic works.

## **Timing Diagram:**

