

# **REACTION TIMER**

## **Materials Required:-**

- D - Flip Flop:- 9
- JK - Flip Flop:- 7
- Push Button:- 2
- LED:- 1
- 5ms Clock:- 1
- Binary Output Display(if not available then LED output):- 8
- AND Gates:- 12
- OR Gate:- 1
- NAND Gate:- 1
- XOR Gate:- 1
- NOT Gate:- 2

## **Functionality:-**

Counter\_3:- This counter waits for some time(for a 5ms clock, it will be 1.98 sec) and then turns on the LED, triggering the main reaction clock, which starts showing the time in binary.

As soon as the LED turns on, the person has to press the push button to stop the reaction clock, which then displays the reaction time.

Reaction Clock:- It's a counter that starts on the signal of Counter\_3 and stops when the person presses the stop button. It is implemented using JK - Flip Flops.