Experiment Name: Implementation of Ripple Counter (Asynchronous counter).

Roll: 1710776121

Session: 2016-17

Course: CSE-2112

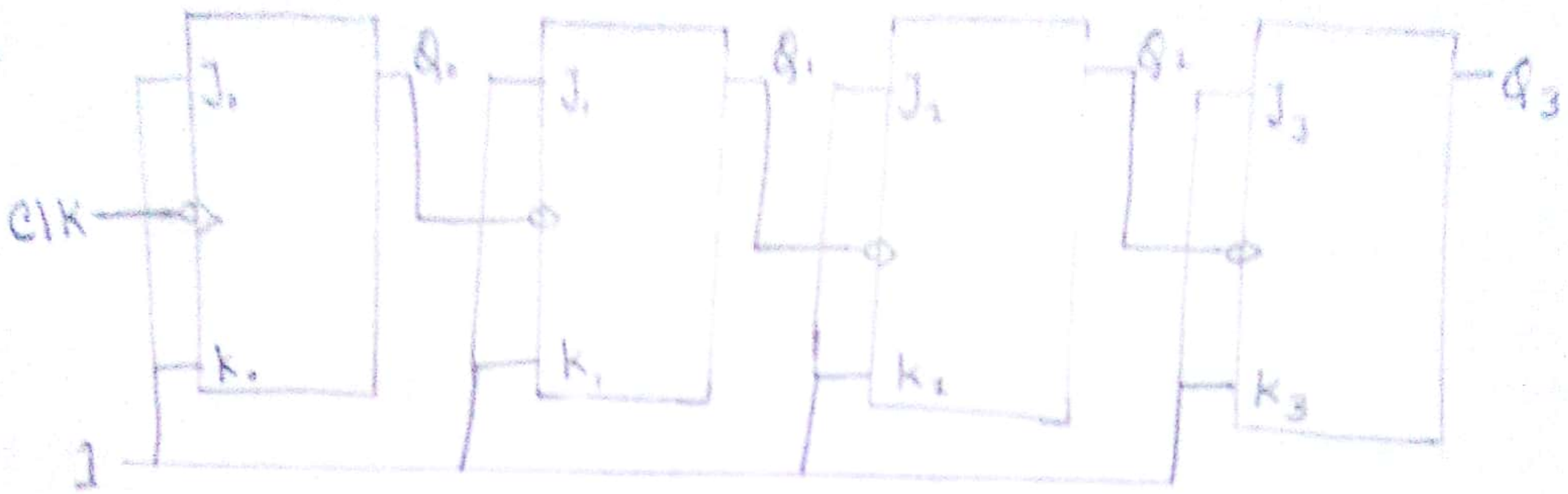
Date: 13-05-2018

Experiment: Implementation of Ripple Counter (Asynchronous counter).

Theory: Ripple counter is mainly an Asynchronous counter. This take an input and that is pulse. From the pulse using J.K flip-flop ripple counter gives outputs. Depending on outputs it counts sequentialy from up to down or down to up.

Instruments: wire, bread-board, power source, J.K Flip-Flop.

Circuit:



Truth Table:

Sequence	Clk	Q_3	Q_2	Q_1	Q_0
0	↑	0	0	0	0
1	↑	0	0	0	1
2	↑	0	0	1	0
3	↑	0	0	1	1
4	↑	0	1	0	0
5	↑	0	1	0	1
6	↑	0	1	1	0
7	↑	0	1	1	1
8	↑	1	0	0	0
9	↑	1	0	0	1
10	↑	1	0	1	0
11	↑	1	0	1	1
12	↑	1	1	0	0
13	↑	1	1	0	1
14	↑	1	1	1	0
15	↑	1	1	1	1
16 (Reset)	↑	0	0	0	0

Result and Discussion: From the circuit we have designed the results we got are similar to the results of the truth table. The results we got are valid. So, the circuit is right.

Pre-caustion:

1. Connect the circuit when there design is complete.

2. please check the circuit before connecting.

3. Ware shoes in the lab.

4. After finishing experiment switch off the power source.