DLD LAB#12

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Table of Contents

Lab #11:
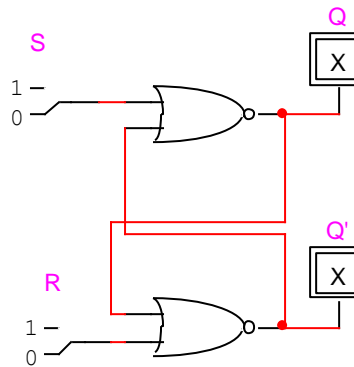
Exercise #1:

S	R	Q	Q'	Comment
0	0	X	X	No Change/Previous State
0	1	1	0	Set State/Q = 1
1	0	0	1	Reset State/Q = 0
1	1	X	X	Invalid State

Exercise #2:
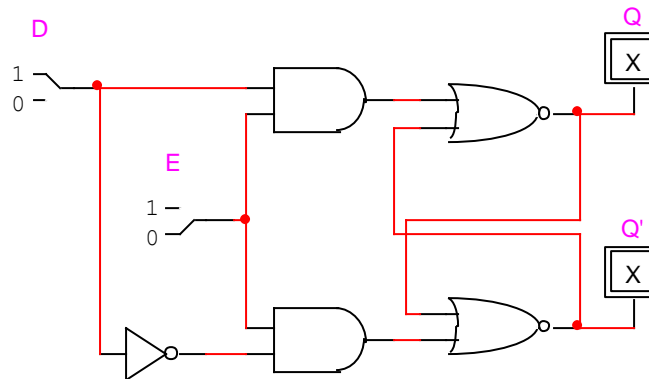
E	D	Q	Q'	Comment
0	0	X	X	No Change/Previous State
0	1	X	X	No Change/Previous State
1	0	1	0	Set State/Q = 1
1	1	0	1	Reset State/Q = 0

Exercise #3:

1 — 14 J   **73**
1 — 0 — 1 o CLK   Q 12   [1] [0]
0 — 1 — 3 K   Q/ o13
1 — 0 — 2 o CLR/
0 —
      7 J
      5 o CLK   Q 9
      10 K   Q/ o8
      6 o CLR/
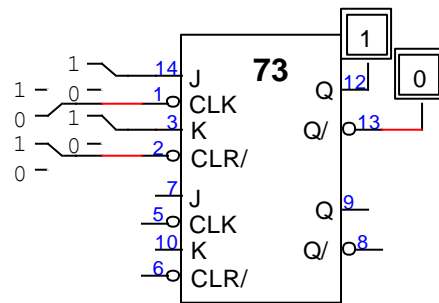
J	K	CLK'	CLR'	Q	Q'	Comment
-	-	-	↓	0	1	Defined State
0	0	↓	↑	X	X	No Change
0	1	↓	↑	0	1	Reset State/Q = 0
1	0	↓	↑	1	0	Set State/Q = 1
1	1	↓	↑	X	X	Toggle State/Q↔Q'

Exercise #4:

1 — 2 D   **74**
1 — 0 — 3 CLK   Q 5   [1] [1]
0 — 1 — 4 o PR/   Q/ o6
1 — 0 — 1 o CLR/
0 —
      12 D
      11 CLK   Q 9
      10 o PR/   Q/ o8
      13 o CLR/
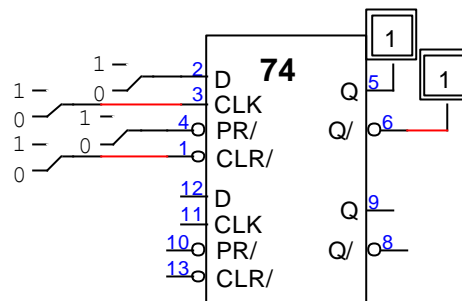
D	CLK	PR	CLR	Q	Q'	Comment
-	-	↓	↓	**1**	**1**	**Error State/PR and CLR should not be on at same time**
-	-	↑	↓	0	1	Defined State/Set Q = 0
-	-	↓	↑	1	0	Defined State/Set Q = 1
0	↓	↑	↑	X	X	No Change
0	↑	↑	↑	0	1	Reset State/Q = 0
1	↑	↑	↑	1	0	Set State/Q = 1