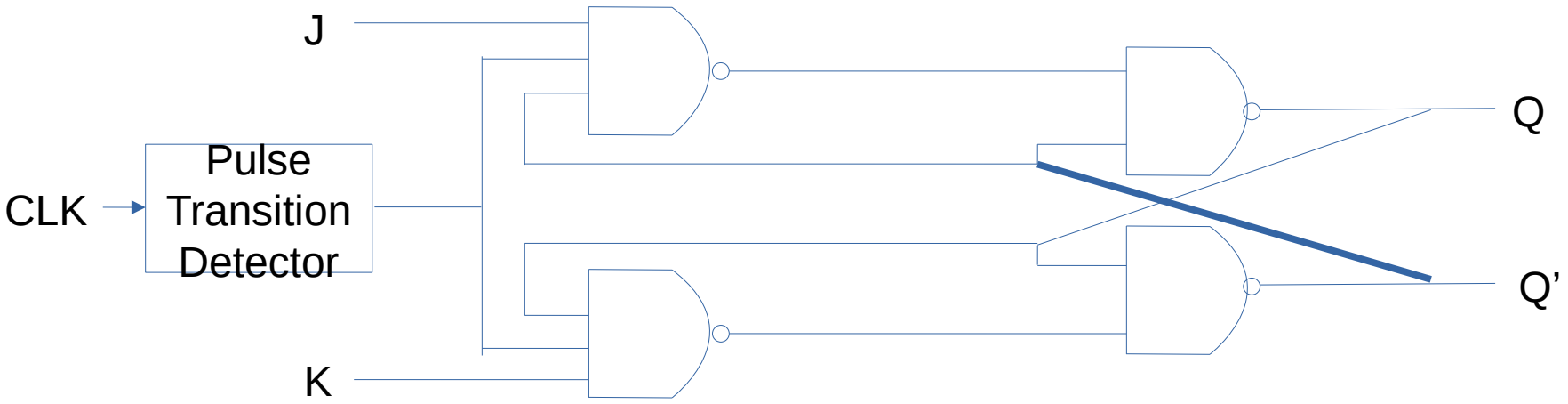
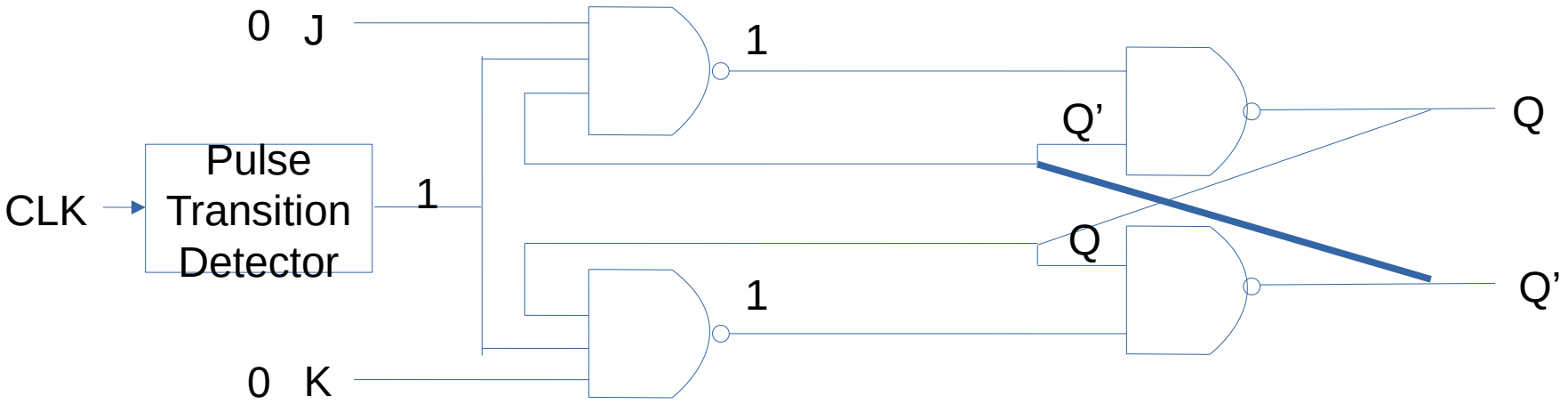
Switching Circuit & Logic Design

Lecture 22 : Flip-Flop

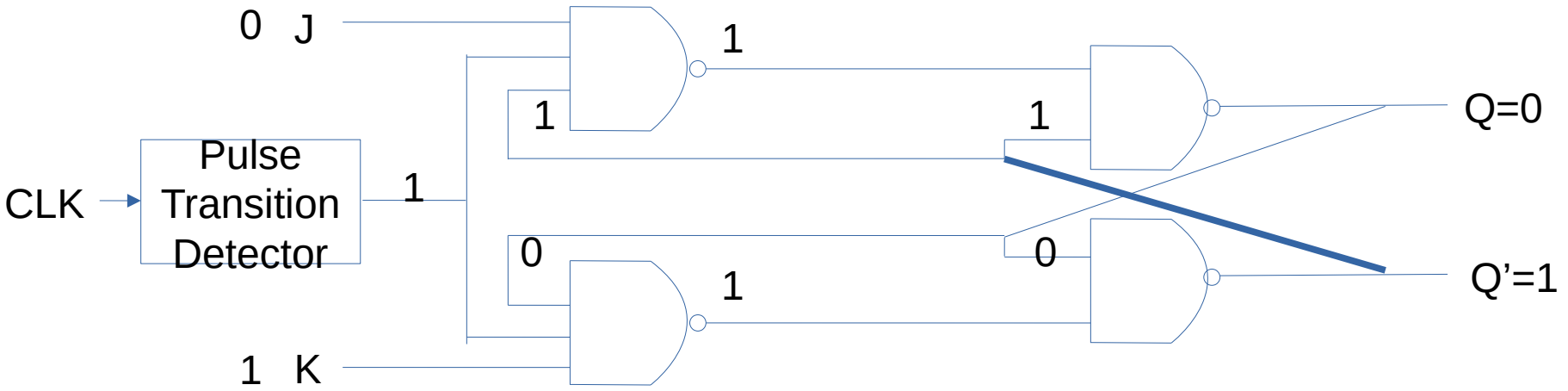
J-K Flip Flop



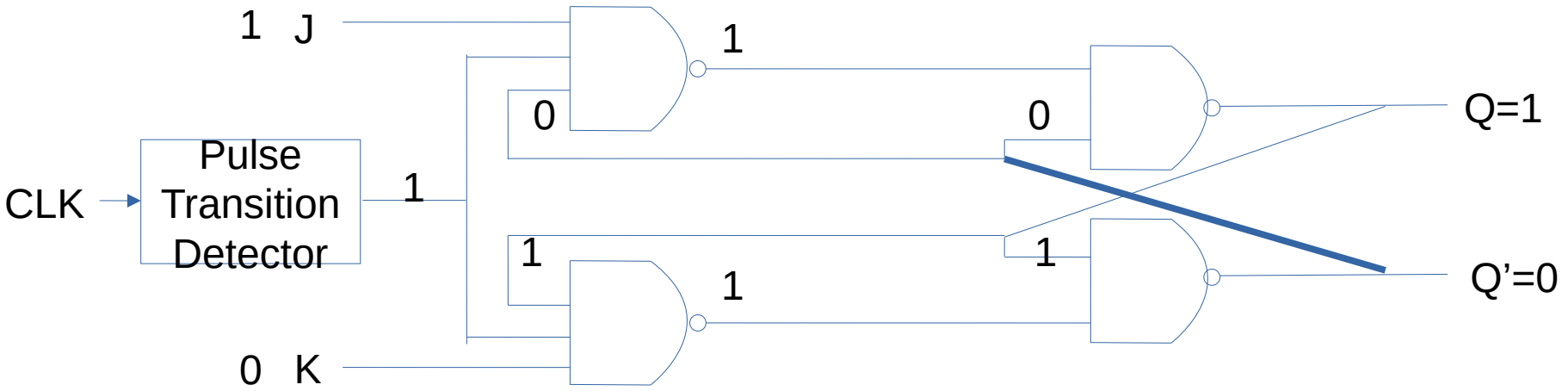
J-K Flip Flop



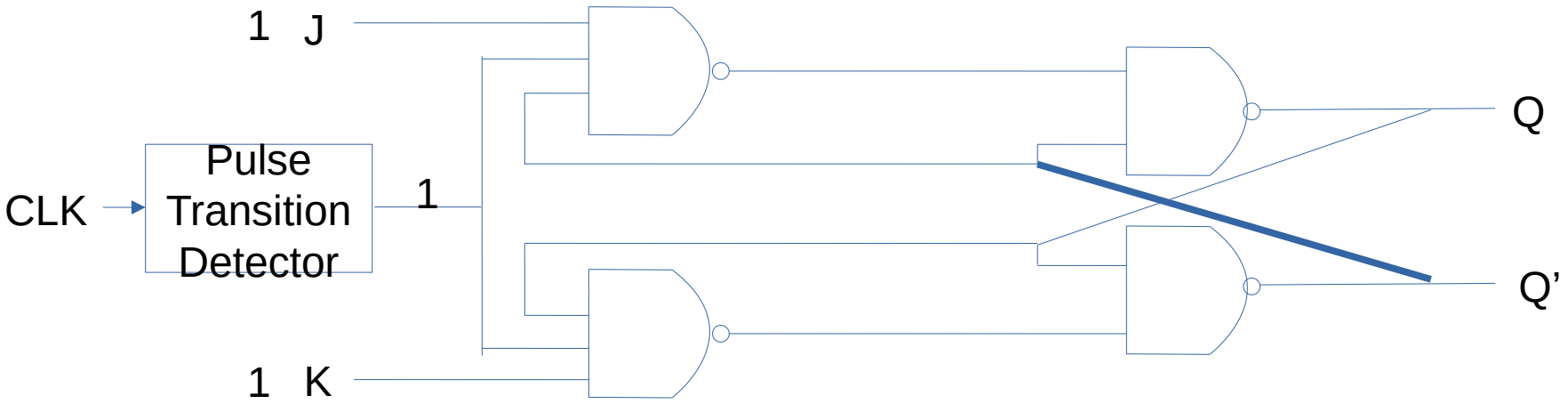
J-K Flip Flop



J-K Flip Flop

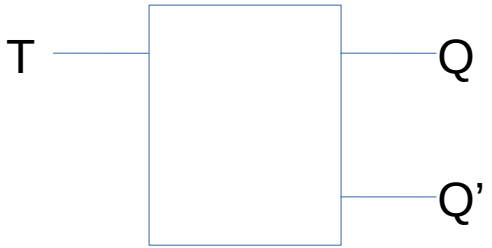


J-K Flip Flop



T Flip-Flop

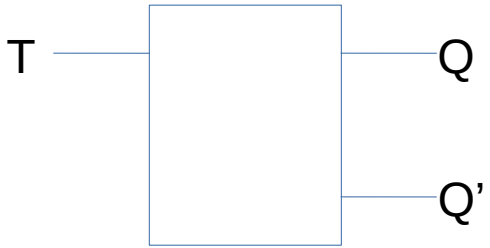
Convert T Flip-Flop to JK FF



T	Q_n	Q_{n+1}
0	0	0
0	1	1
1	0	1
1	1	0

J	K	Q_n	Q_{n+1}
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	0
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	0

Convert T Flip-Flop to JK FF



T	Q_n	Q_{n+1}
0	0	0
0	1	1
1	0	1
1	1	0

Q_n\JK	00	01	11	10
0			1	1
1		1	1	

JQ_n'

KQ_n

J	K	Q_n	Q_{n+1}	T
0	0	0	0	0
0	0	1	1	0
0	1	0	0	0
0	1	1	0	1
1	0	0	1	1
1	0	1	1	0
1	1	0	1	1
1	1	1	0	1

Convert T Flip-Flop to JK FF