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DLD Lab No: 09 (JK Flip Flop)

Lab 9: JK Flip Flop

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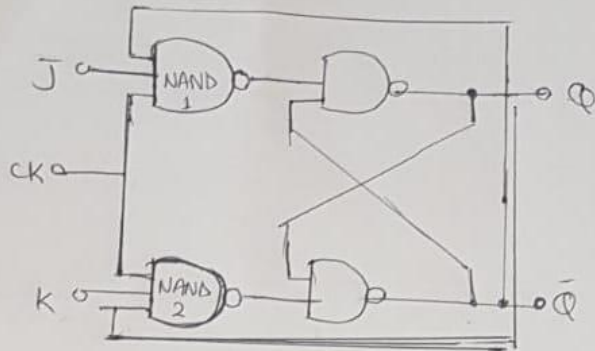


Table -

Control inputs		Inputs		Outputs			
CLR	BAR	CLK	J	K	Q	Q _{bar}	
1		↓	0	0	Q _{no} chng	Q _{no} chng	No change in state
1		↓	0	1	0	1	Reset Q to 0
1		↓	1	0	1	0	Set Q to 1
1		↓	1	1	0	0	Toggles

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Result & Discussion:-

Flip flops are devices used in the digital field for variety of purposes. Flip flops are fundamental building blocks of digital electronic system used in computers, communication & many types of systems. In JK flip flops the letter J is for set & letter K for clear. When logic 1 inputs are applied in both J & K simultaneously, the flip flop switches to its complement state, i.e. $Q=1$, it switches to $Q=0$ & vice versa.

Flip flops & latches are used as data storage of state, & such a circuit is described as sequential logic. When used in a finite-state machine, the output & next state depends not only on its current input but also on its current state.

It can also be used for counting of pulses, & for synchronizing variably timed input signals to some reference timing signal.

