

Assignment

January 10, 2024

Gate Question

- Given below is the diagram of a synchronous sequential circuit with one $J - K$ flip-flop and one T flip-flop with their outputs denoted as A and B respectively, with $J_A = (A' + B')$, $K_A = (A + B)$ and $T_B = A$.

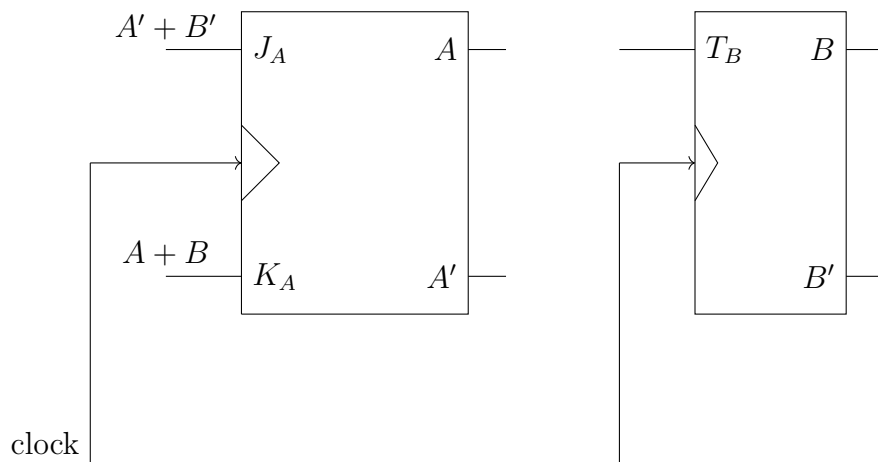


Figure 1: synchronous sequence circuit of J-K and T flipflop

Starting from the initial state ($AB = 00$), the sequence of states (AB) visited by the circuit is

gate IN2021,36

- $00 \rightarrow 01 \rightarrow 10 \rightarrow 11 \rightarrow 00 \dots$
- $00 \rightarrow 10 \rightarrow 01 \rightarrow 11 \rightarrow 00 \dots$

(c) $00 \rightarrow 10 \rightarrow 11 \rightarrow 01 \rightarrow 00 \dots$

(d) $00 \rightarrow 01 \rightarrow 11 \rightarrow 00 \dots$