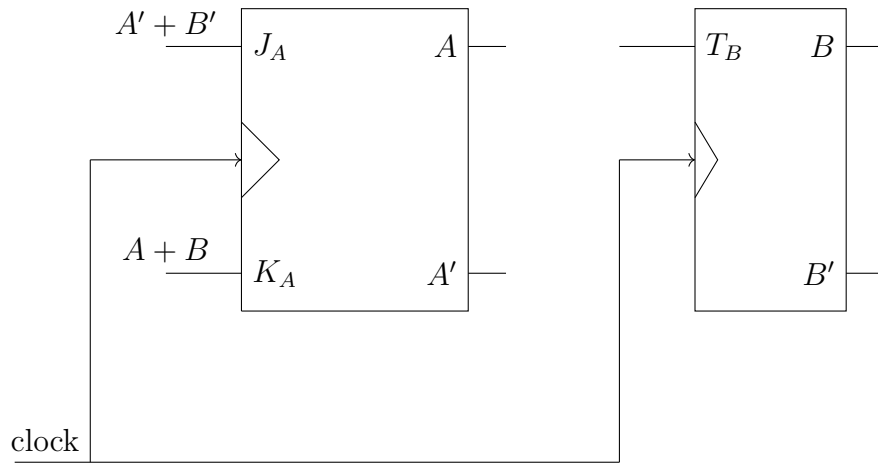# Assignment

January 9, 2024

Gate Question

1. 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 $T_B = A$.

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

   (a) $00 \rightarrow 01 \rightarrow 10 \rightarrow 11 \rightarrow 00 \ldots$

   (b) $00 \rightarrow 10 \rightarrow 01 \rightarrow 11 \rightarrow 00 \ldots$

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

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