

ESP

1. **Question(GATE-IN-2018-44):** A 2-bit synchronous counter using two $J-K$ flip flops is shown. The expressions for the inputs to the $J-K$ flip flops are also shown in the figure. The output sequence of the counter starting from $Q_1Q_2 = 00$ is

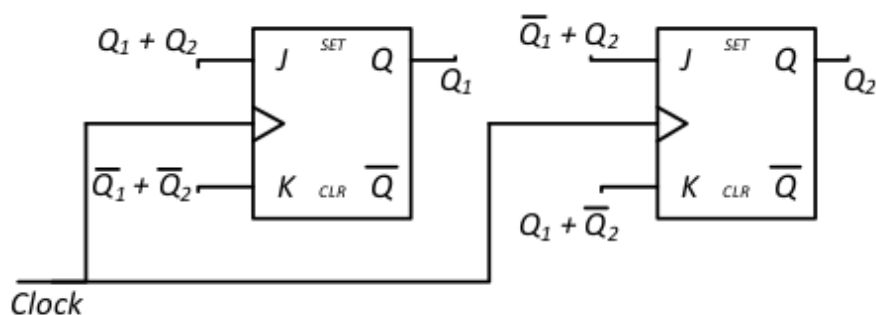


Figure 1

- (a) $00 \rightarrow 11 \rightarrow 10 \rightarrow 01 \rightarrow 00 \dots$
- (b) $00 \rightarrow 01 \rightarrow 10 \rightarrow 11 \rightarrow 00 \dots$
- (c) $00 \rightarrow 01 \rightarrow 11 \rightarrow 10 \rightarrow 00 \dots$
- (d) $00 \rightarrow 10 \rightarrow 11 \rightarrow 01 \rightarrow 00 \dots$