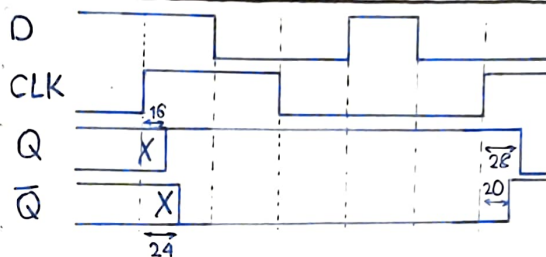
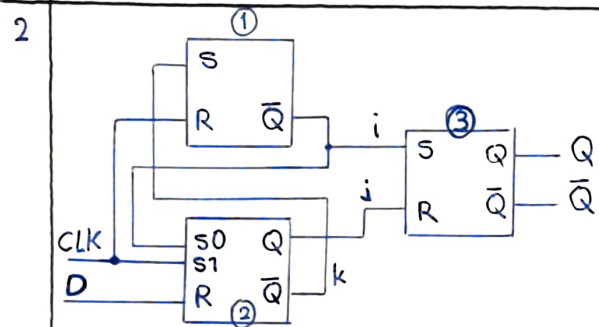
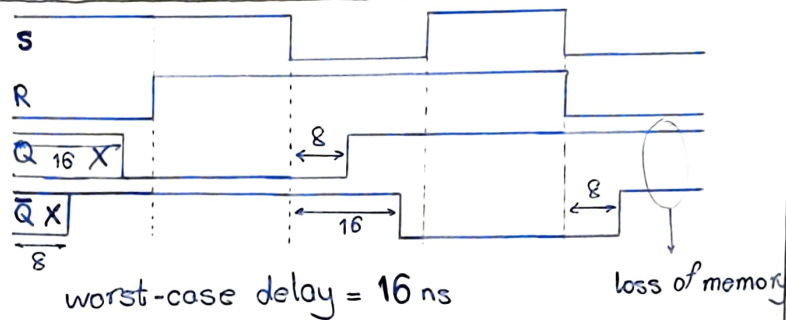


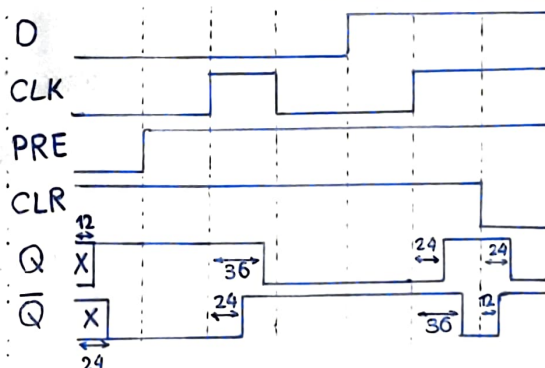
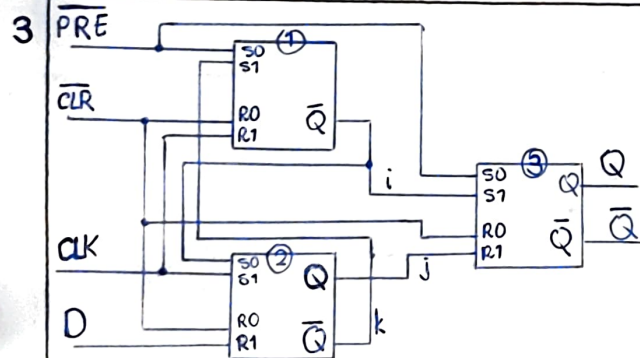
delay NAND $\begin{cases} 2 \text{ input: } \#8 \\ 3 \text{ input: } \#12 \end{cases}$



$i, j \rightarrow \text{CLK}$ وابسته به , $k \rightarrow D$ وابسته به

$$t_{\text{setup}} = \begin{cases} 16 \text{ ns} & \text{برای } D \\ 12 \text{ ns} & \text{برای } \text{CLK} \end{cases}$$

$$t_{\text{hold}} = \begin{cases} 12 & \text{اگر } D = 0 \\ 0 + \epsilon & \text{اگر } D = 1 \end{cases} \rightarrow \text{بین دولیت } G3 \text{ و } G4 \text{ حلقه ای وجود می شود}$$



Preset and Clear are simultaneously active \Rightarrow loss memory