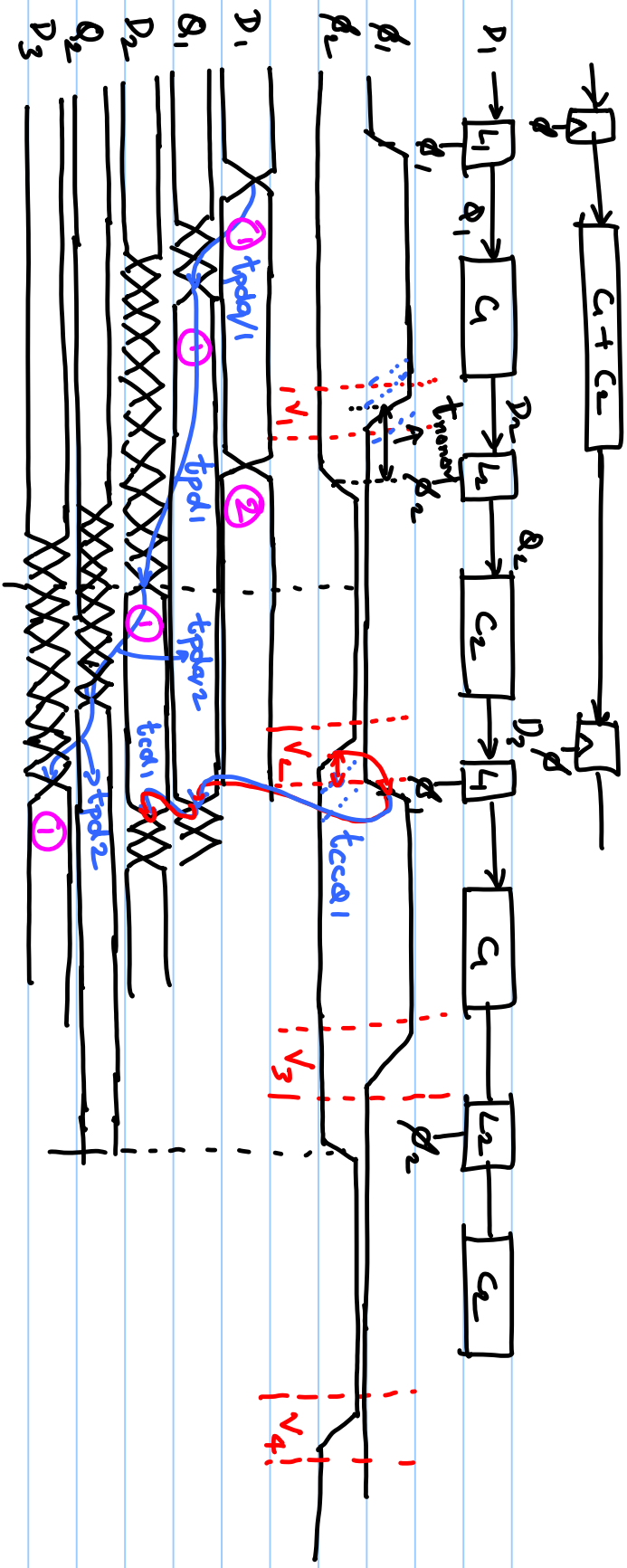


~~11/11/2019~~

EE5311

Module -5 - Sequential Circuits



$$T_c \geq t_{pdq/1} + t_{pd1} + t_{pdq/2} + t_{pd2}$$

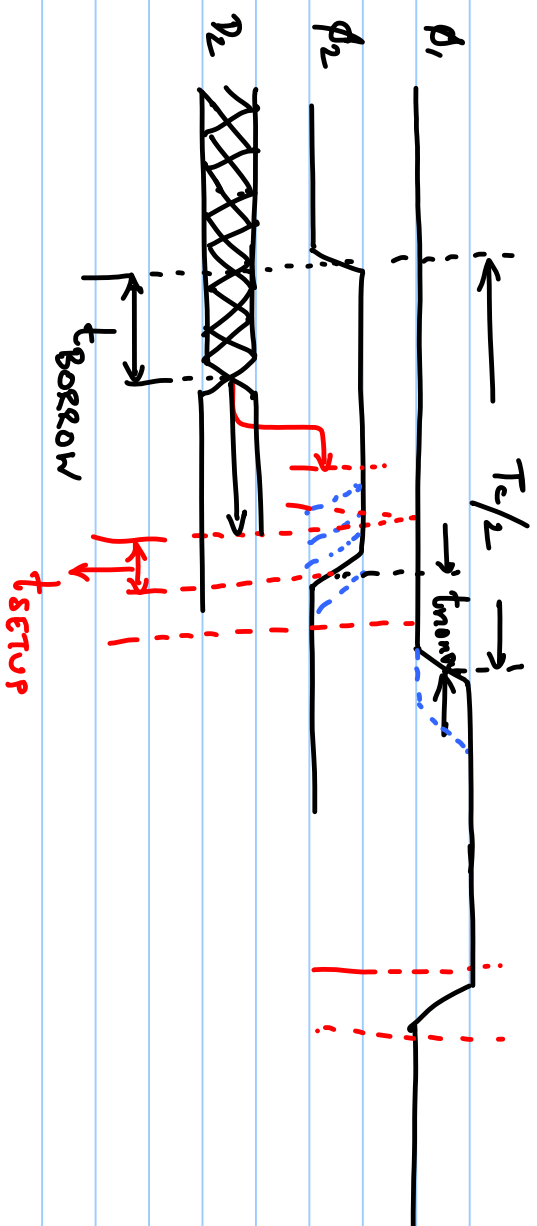
$$\text{SKED TOLERANT} \Rightarrow \underbrace{t_{pd1} + t_{pd2}}_{t_{pd}} \leq T_c - (t_{pdq/1} + t_{pdq/2})$$

$$t_{pd} \leq T_c - \{ \underbrace{t_{pdq/1}}_{\text{MAX}} + \underbrace{t_{pdq/2}}_{\text{DECAY}} + t_{setdy} \}$$

$$t_{skew} + t_{hold} \leq t_{nonov} + t_{cca1} + t_{cd1}$$

$$\Rightarrow t_{cd1,2} \geq t_{skew} + t_{nonov} - t_{hold}$$

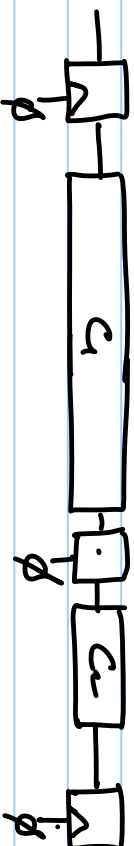
$$\text{MIN DELAY}$$



$$\frac{T_c}{2} \geq t_{BORROW} + t_{setup} + t_{hold} + t_{skew}$$

$$\Rightarrow t_{BORROW} \leq \frac{T_c}{2} - t_{setup} - t_{hold} - t_{skew}$$

$$c_1 + c_2$$



$$T_c \geq t_{pca} + t_{pd1,2} + t_{setup}$$

$$T_c \geq t_{pca} + \max(t_{pda1}, t_{pda2}) + t_{setup} - t_{loop}$$

$$T_c \geq (t_{pca1} + t_{pd1}) + t_{pda1} + t_{pda2} - t_{loop}$$

