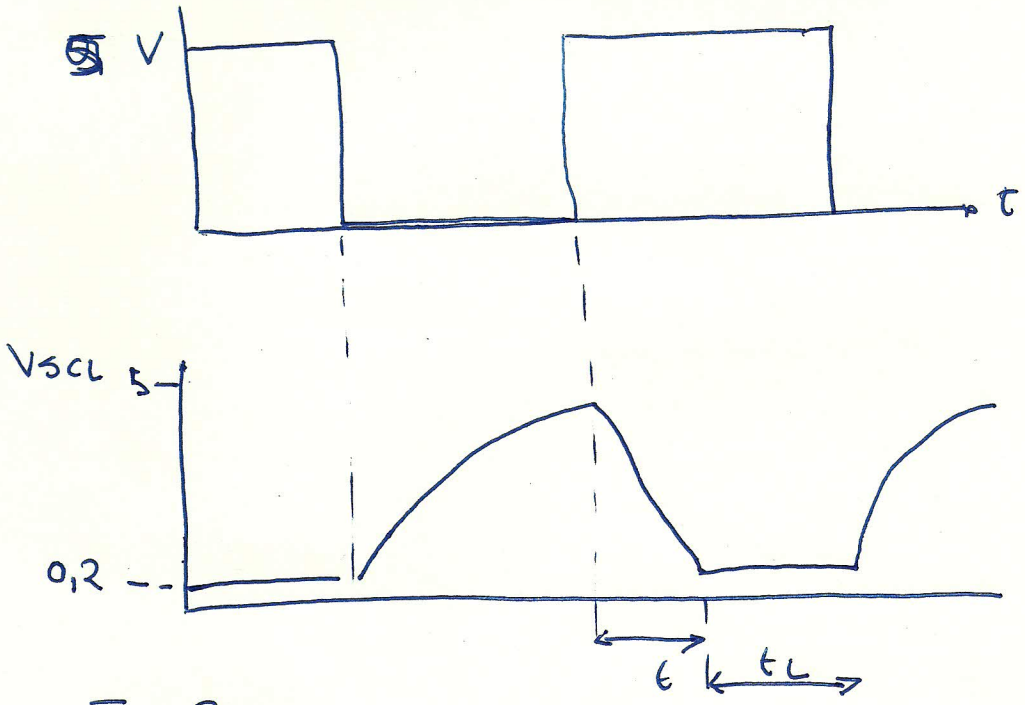
CARREGA



$T = 2\,\mu s$

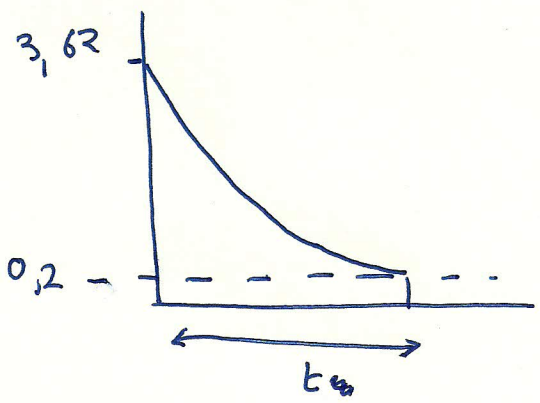
$t = 1\,\mu s$

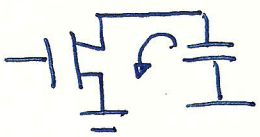
$$V_{SCL} = 0,2 + (V_{cc} - 0,2)\left(1 - e^{\frac{-t}{RC}}\right)$$

$$= 0,2 + 4,8\left(1 - e^{-\frac{1\times10^{-6}}{2000\times400\times10^{-12}}}\right)$$

$$= 0,2 + 4,8\left(1 - e^{-1,25}\right) = 3,62\ V$$

DESCARREGA





$V_{SC} = I_{L\,MAX} \cdot R$

$$R = \frac{3,62}{10\times10^{-3}} = 362\ \Omega$$

$$0,2 = 3,62 \cdot e^{\frac{-t}{RC}}$$

$t = 419\ ns$; $t_L = 1\,\mu s - t = 581\ ns$