

Antwoorden tentamen netwerkanalyse 19 nov 2004

- 1a $V_{ab} = 70V$
1b $P = 163mW$
2 $V_1 = 2V$
3 $V_1 = 2.97V$ $V_2 = 0.97V$
4a $E(t) = \frac{1}{2} C V_{DD}^2$
4b $E_{diss} = \frac{1}{2} C V_{DD}^2$
4c MOS is niet lineair.
5a $0V$ $0V$ $0V$ $2.5V$
5b $i_L' = \frac{2.5}{L} - \frac{100i_L}{L} - \frac{U_c}{L}$
 $U_c' = \frac{i_L}{C}$
5c $s^2 + \frac{100}{L}s + \frac{1}{LC} = 0$
5d $<, =, > 2.5mH$
5e $I_1 e^{s_1 t} + I_2 e^{s_2 t} + i_L(\infty)$
5g $0.0144j (e^{s_2 t} - e^{s_1 t})$
5h $0.0288 e^{-5t} \sin(8.7t)$ t in ms
6a $5.76L - 0.149$
6b $7.25 \cos(2.4 \cdot 10^6 t + 0.636)$ mA
6c toenemen