

Homework Assignment No. 12

Due on Friday, April 16, 2004

1.) Problem P10.1 of the text

[Ans: For 0.18 μm M5 Al – $R_{\text{wire}} = 1.35\text{k}\Omega$, $C_{\text{wire}} = 2\text{pF}$, $\tau = 1.026\text{ns}$].

2.) Problem P10.3 of the text.

[Ans. One point on the curve is 0.1fF at a spacing of 0.8 μm]

3.) Problem P10.9 of the text.

[Ans: (a) $\Delta V_A = 1.125\text{V}$ and (b) $C_L = 260\text{fF}$]

4.) Problem P10.9 of the text.

[Ans: Between 1.8mm and 4.3mm]