Homework Assignment No. 12

Due on Wednesday, April 20, 2005

1.) Problem P10.1 of the text

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

2.) Problem P10.3 of the text.

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

3.) Problem P10.9 of the text.

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

4.) Problem P10.9 of the text.

   [Ans: Between 1.8mm and 4.3mm]