

# Home Works & Assignments

ES 330 – Electronics II, Fall 2009

No	Problems	Answers/Hints	Due date
1	Example 13.9 and 13.10 with PSPICE analysis Problems: 13.15, 13.16, 13.17, 13.18, 13.63, 13.98, 13.109 Example 14.2, 14.6 Problems: 14.17, 14.21, 14.80, 14.83	13.15 $\rightarrow$ (22 $\mu$ A, 6.99 V), 13.17 $\rightarrow$ (1.78 mA, 6.08 V), 13.63 $\rightarrow$ $A_v = -40$ , 13.98 $\rightarrow$ $g_m = 362 \mu$ S, $r_o = 586$ $k\Omega$ , $A_v = -10.3$ , 13.109 $\rightarrow$ $r_{\pi} = 1 M\Omega$ , $r_o = 51.5 M\Omega$ , $R_{in} = 833 k\Omega$ , $R_{out} = 1.46 M\Omega$ , 14.17 $\rightarrow$ $g_m = 0.559$ $mS$ , $R_{in} = 1.10 M\Omega$ , $R_{out} = 18 k\Omega$ , $A_v = -9.48$ , $A_i = -$ $22.7$ , $v_i \leq 0.286$ , 14.21 $\rightarrow$ $R_{in} = 2 M\Omega$ , $R_{out} = 100 \Omega$ , $A_v = 0.907$ , $A_i = 2 \cdot 10^4$ , 14.80 $\rightarrow$ $C_1 \gg 0.01 \mu$ F, $C_2 \gg$ $1.2 \mu$ F, $C_3 \gg 7.4 nF$ , (b) $C_2 \gg 0.012 \mu$ F, 14.83 $\rightarrow$ $C_1 \gg 0.2 \mu$ F, $C_2 \gg 295 pF$ (b) $C_1 \gg 105 \mu$ F, $C_2 \gg 0.15 \mu$ F	09/28/2009