

FAQs and Overview of Problem Set 3

Notes and Hints:

Problem 1:

- The statement that "each stage consist of a dynamic inverter followed by a static inverter" is in error. For this particular logic style we do not need static inverters except in the one place you choose.

Problem 2:

- For part (c) you may assume $S=100\text{mV/decade}$. Also for part (c), choose the input vector that you chose in part (b) for the worst case leakage through the pull-up network when the output=0V

Problem 3:

Problem 4:

- Leakage power may be found by simulation.
- For the hand calculation of power, you may assume that the 10 pF node is always equal to $V_{DD}/2$, despite the fact that in practice it varies by about 100 mV during switching.

Problem 5:

Problem 6:

- You may assume that $C_L=0$ when running your simulations.

Problem 7: