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=100mV/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 VDD/2, despite the fact that in practice it varies by about 100 mV during switching.

Problem 5:
Problem 6:

• You may assume that CL=0 when running your simulations.

Problem 7: