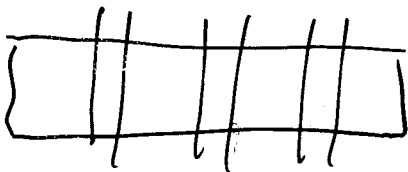
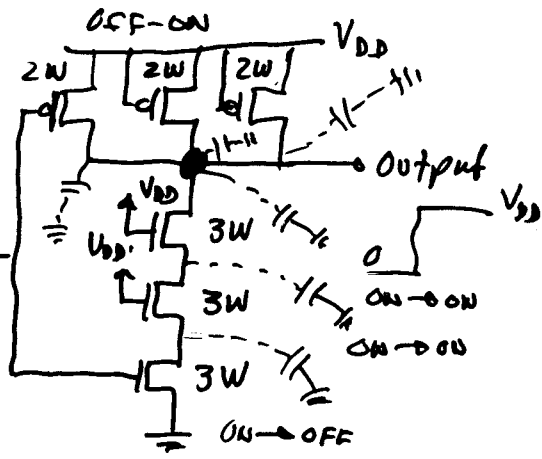


PROBLEM SESSION FOR EXAM 3

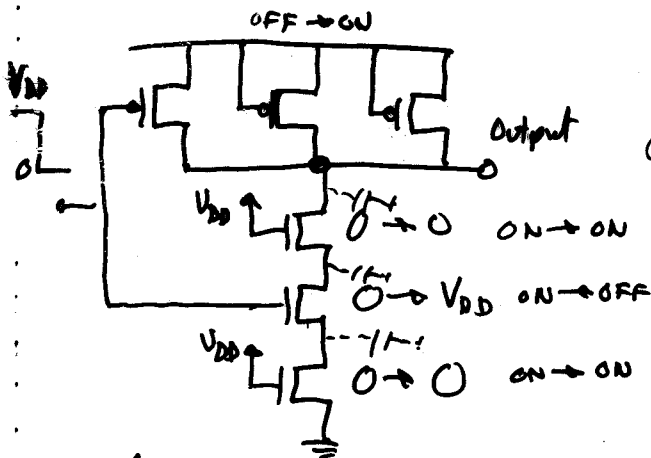
Problem 6.4a

Determine the self-cap. at the output

$$C_{self} = C_{eff} (2W + 2W + 3W + 3W + 3W)$$

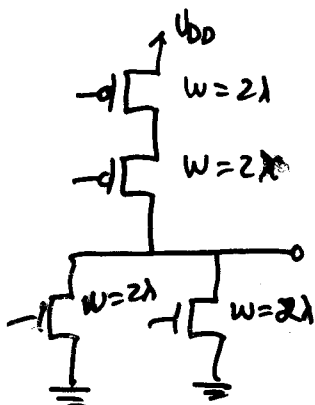


Prob. 6.4b



$$C_{self} = C_{eff} (2W + 2W + 3W + 3W)$$

P6.9c



$$LE = \frac{\tau_{gate}}{\tau_{inv}} = \frac{(R_{eff} C_{in})_{gate}}{(R_{eff} C_{in})_{inv}}$$

Falling Case:

$$LE_F = \frac{R_{eqn} 2 C_g W}{R_{eqn} 3 C_g W} = \frac{2}{3}$$

Rising Case:

$$LE_R = \frac{R_{eq} 2}{R_{eqn} 3} = \frac{4 R_{eqn} \frac{2}{3}}{R_{eqn} 3} = \frac{8}{3}$$

2004 Final Problem 6c