

Logic Families

Friday, March 19, 2010

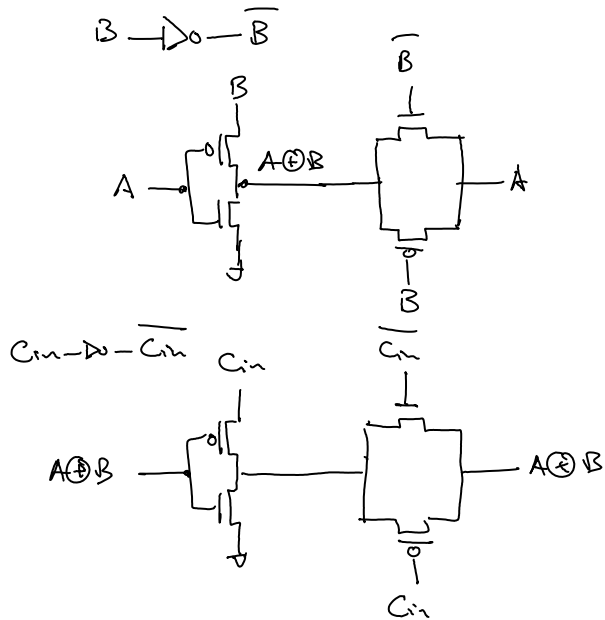
08:50

Transmission Gate (t-gate)

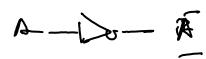
Address!

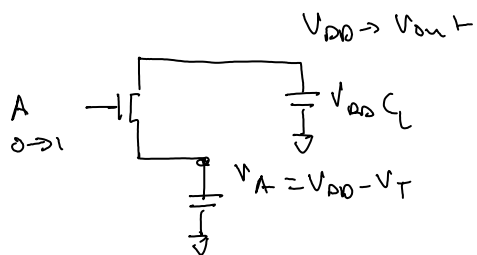
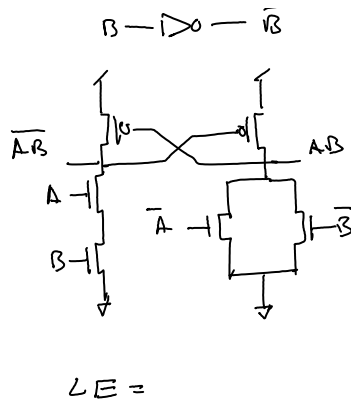
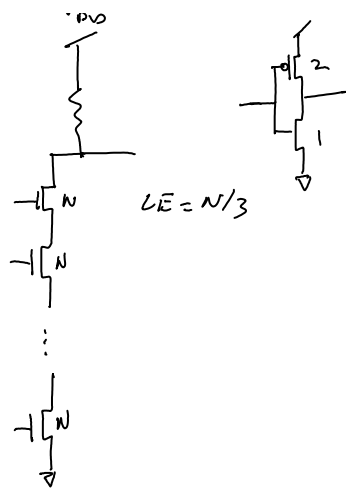
$$S = A \oplus B \oplus C_{in}$$

$$C_{out} = AB + AC_{in} + BC_{in} = AB + C_{in}(A+B)$$



v...





$$\begin{aligned}
 V_{DD} \cdot C_L &= V_{out} \cdot C_L + V_A \cdot C_n \\
 &= V_{out} \cdot C_L + V_{out} \cdot C_n
 \end{aligned}$$

$$\frac{V_{DD} \cdot C_L}{C_L + C_n} = V_{out}$$

$$\Delta V = V_{DD} - V_{out}$$

$$\Delta V = \frac{C_n}{C_n + C_L} V_{DD}$$