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COE 360, Term 071

Principles of VLSI Design

Quiz# 6

Due date: Saturday, Dec.8, 2007

Q1. Design a **Resistive-load Inverter** with $V_{OH}=5v$, $V_{OL}=0.2v$, and Average DC power $250 \mu W$. Assume that $V_{tn}=1v$ and $\mu_n C_{ox}=50.5 \text{ uA/V}^2$. Assume that the used technology is $0.5\mu m$.

Q2. Given the following three resistive-load inverters and the three voltage transfer characteristic graphs for the three inverters, select the voltage-transfer characteristic graph that corresponds to each inverter. Show your answer in the given graph. Justify your answer.

