

Open book and closed notes.

Show your work for credit and place a box around each of your answers.

For the 1  $\mu\text{m}$  book process used below:  $V_{THN} = 800 \text{ mV}$ ,  $V_{THP} = 900 \text{ mV}$ ,  $KP_n = 120 \text{ uA/V}^2$ , and  $KP_p = 40 \text{ uA/V}^2$ .

1. What is the DC voltage on the drain of M7? Calculate the DC and AC currents in M5. (5 points)

