

Name

PID

UNIVERSITY OF CALIFORNIA, SAN DIEGO

Electrical and Computer Engineering Department

ECE 65 – Fall 2020

Components and Circuits lab

Midterm Exam2

You should submit your handwritten solutions in a PDF format to Gradescope by Monday, 11/9, at 11:50 am (Pacific Time).

Problem 1.

Find the node voltages at the drain, source, and gate terminals of both MOSFETs in the below circuit. Make sure to check if the MOSFETs are in cut-off or not.

Assume the MOS transistors in the following circuit have $\mu_n C_{ox} = 2 \mu_p C_{ox} = 320 \mu A/V^2$, $|V_t| = 1 V$, $\lambda = 0$, $L = 1 \mu m$, and $W = 3 \mu m$.

Show your work.

