Joe’s Grading Guideline

**Problem 4A**
0 – Blank answer
2 – For an argument that completely doesn’t make sense.
3,4 – For an argument that makes sense, but student does not answer the question.
5 – Correct answer

**Problem 4B**
0 – Blank answer
1,2 – For an argument that just does not make sense.
3 – Mentioning that Cox goes down as a result of tox going up.
4 – For an argument that is almost correct.
5 – Mentioning that Vt is inversely proportional to Cox.

**Problem 4C**
0 – Blank answer
1 – For writing down dI_D/dV_{GS}.
2 – For correct expression dI_D/dV_{GS} (Triode region)
1 – For writing down dI_D/dV_{DS}.
2 – For correct expression dI_D/dV_{DS} (Triode region)
1 – Identify Cgs and Cgd being the 2 most important capacitances

**Problem 4D**
0 – Blank answer
1 – Correct expression for Gm
1 – For each additional reason you give (even if you had started out with the square-root expression for Gm, and a student mentions that the parameter should be increased by 4 times).

**Problem 4E**
3 – For correct cross section
1 – For correct process step
1 – For just mentioning the need for masks