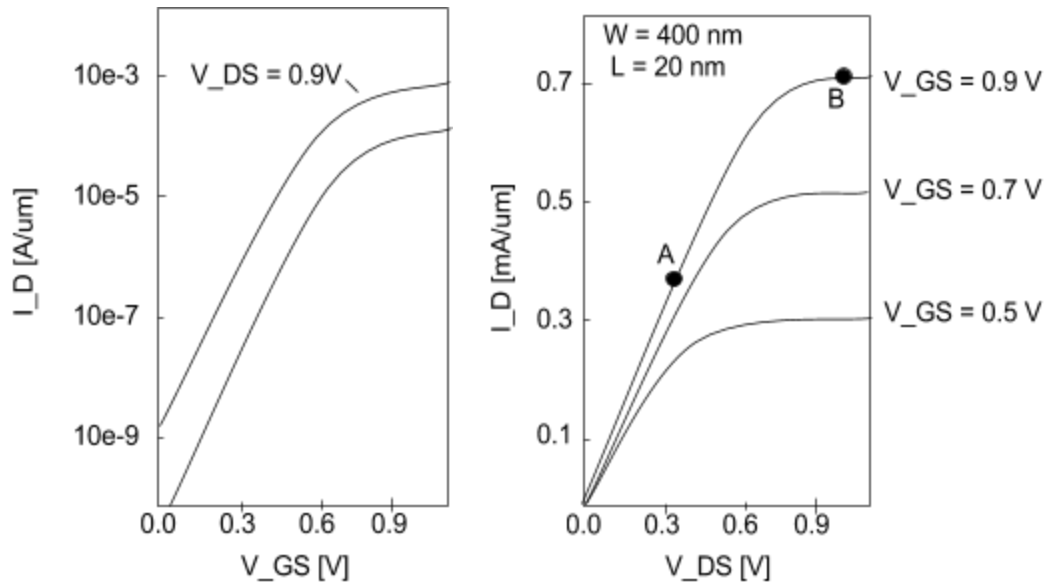


ECE 230 Exam Question - MOSFETs 1

Consider a Si MOSFET with the below characteristics curve



- Fill in the names of the characteristic plots above:
- Given the operating voltage for the MOSFET is 0.9 V , and $K_n = K_p = 4.97 \times 10^{-4} \text{ A/V}^2$, please derive the following characteristics from the curves above
 - Transconductance _____
 - On Current _____
 - Subthreshold Swing _____
 - MOSFET N or P Type? _____
 - Threshold Voltage _____
- For point A (left diagram) and point B (right diagram) on the graphs, label the following components on each MOSFET Intersection: Source. Body, Drain Doping, Remaining Depletion Layer, Inversion Layer

