**ECE 230 Exam Question - MOSFETs 1**

Consider a Si MOSFET with the below characteristics curve

 

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1. Fill in the names of the characteristic plots above:
2. Given the operating voltage for the MOSFET is 0.9 V, and A/V2, please derive the following characteristics from the curves above
   1. Transconductance \_\_\_\_\_\_\_\_\_\_
   2. On Current \_\_\_\_\_\_\_\_\_\_
   3. Subthreshold Swing \_\_\_\_\_\_\_\_\_\_
   4. MOSFET N or P Type? \_\_\_\_\_\_\_\_\_\_
   5. Threshold Voltage \_\_\_\_\_\_\_\_\_\_
3. 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

 