

Answers to EEE210 Quiz #3 AY2014-2015

1. The Q -point is $I_D = 7.139$ mA, $V_{GS} = 1.645$ V, $V_{DS} = 6.645$ V. This is easily seen to lie in the active region.
2. $I_D = 12.4848$ mA, $R_D = 0.998185$ k $\Omega \approx 1$ k Ω , $R_1 = 220$ k Ω .
3. Set all DC sources to 0, replace all capacitors by short-circuits, replace the MOSFETs by their small signal AC models and redraw. Easy. Refer to notes.

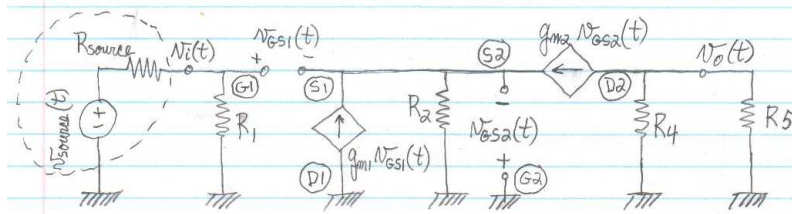


Figure 1: