

EE 203 Electronics I

Quiz # 4

Name: _____

I.D.# _____

Sec.# 03

The NMOS transistor in the amplifier circuit shown in Fig.3 has $V_t=1V$, $K=2mA/V^2$, and $\lambda = \frac{1}{V_A} = 0.01V^{-1}$, if $I_Q=1mA$

Determine the small signal voltage gain v_o/v_i . Include the small signal resistor of the transistor (r_o) in your analysis.

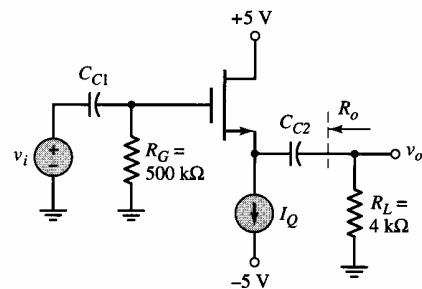


Fig. 3