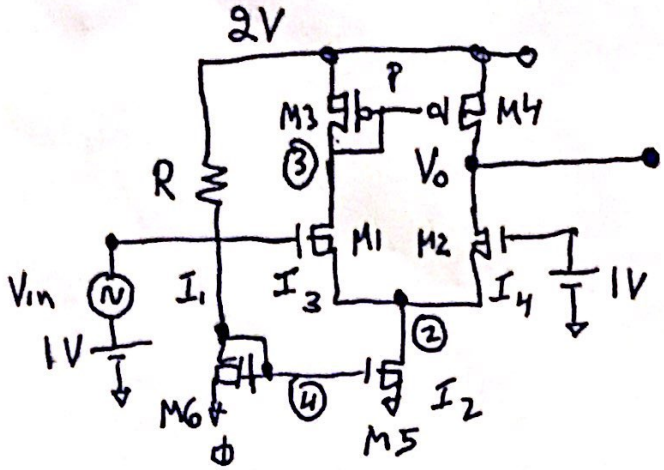
You design

20%



① given: $\mu_n C_{ox} = 150\,E\text{-}6 \frac{A}{V^2}$ $\frac{1}{\lambda_p} = \frac{1}{\lambda_n} = 90V$

$\mu_p C_{ox} = 50\,E\text{-}6 \frac{A}{V^2}$

$V_{TP} = V_{TN} = 0.5V$

A) You choose R, $\frac{W}{L}$ (all M's) MICRONS

IF $V_{in} = \Phi$ Find operating Voltages and Currents

$V③, V②, V④ = ?$	– can Ignore λ's
$I_2, I_3, I_4, I_1 = ?$	– assume $V_o = 1V$

(B) SKETCH To Small Signal eq. Circuit diagram. (USE λ of M5 = Φ)

using g_m, R_o

Find the Gain $\frac{V_o}{V_{in}} = ?$ in eq FORM in Value

(C) please draw The Layout of This Circuits (RELATIVLEY Scale) Including METAL CONNECTIONS, Label M's, USE R 1 KΩ/□

(d) Make any Comments on your work choises You Like