

DEPARTMENT OF ELECTRICAL ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY, KANPUR

EE 210

MINI-QUIZ #7A

24.3.21

Total Marks: 10

Total Time: 10 mins.

V_i, V_o have both DC (V_I, V_O) and ac (v_i, v_o) components. Find V_I and v_o/v_i if the DC power dissipation of the circuit is 5 mW.

Data: for M_1 : $V_{TN0} = 0.7$ V, $k'_N = 40 \mu\text{A}/\text{V}^2$, $(W/L) = 1$; for Q_2 : $\beta = 100$.

Neglect body effect, CLM effect, Early effect.

