

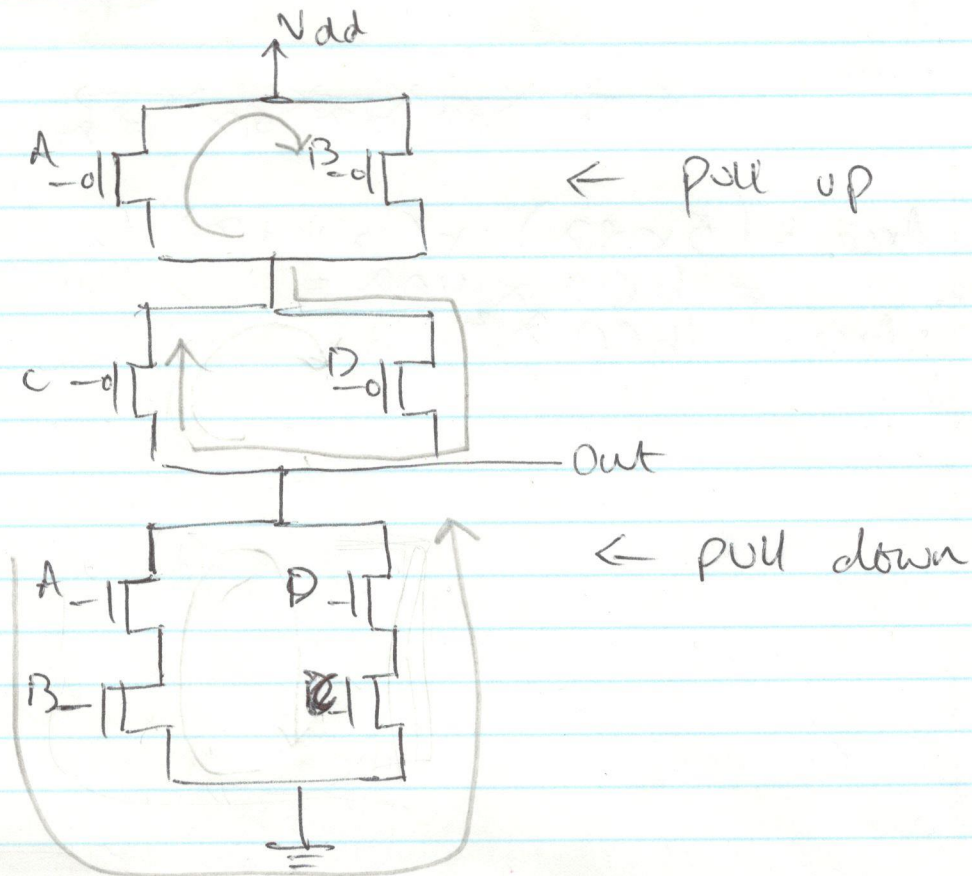
MIDTERM F2020 - ECE 734

VATSAL SHREEKANT, 500791363

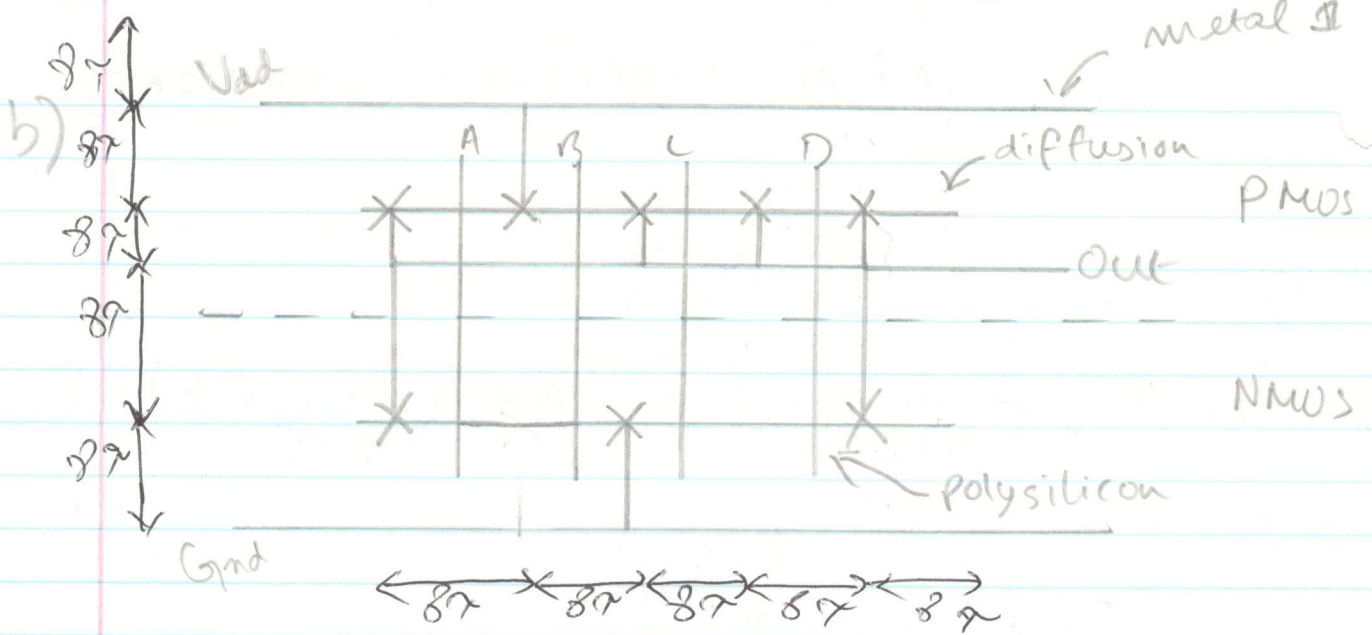
①

Q-1) $Out = \overline{(A \cdot B) + (C \cdot D)}$

Ans - a) $Out = \overline{(A \cdot B) + (C \cdot D)} = \underbrace{(\overline{A} + \overline{B})}_{\text{PMOS}} \cdot \underbrace{(\overline{C} + \overline{D})}_{\text{NMOS}}$



(2)



c) Area = $(5 \times 8\lambda) \times (5 \times 8\lambda)$
 $= 40\lambda \times 40\lambda =$
 Area = $1600 \lambda^2$