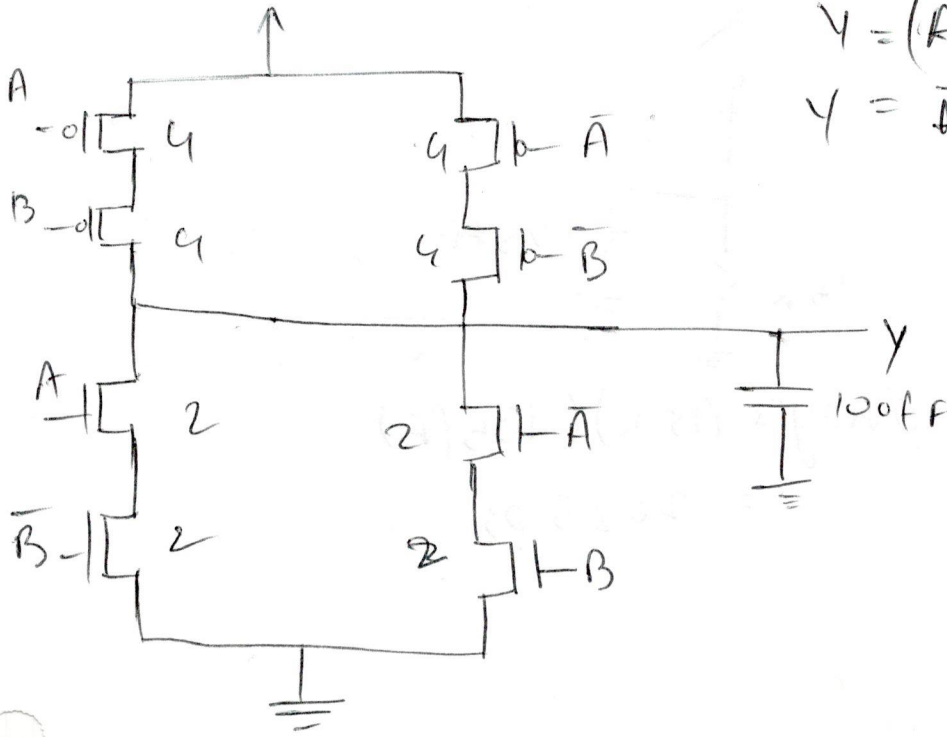


# ELE734 - Final

VATSAL SHREEKANT (500771363)

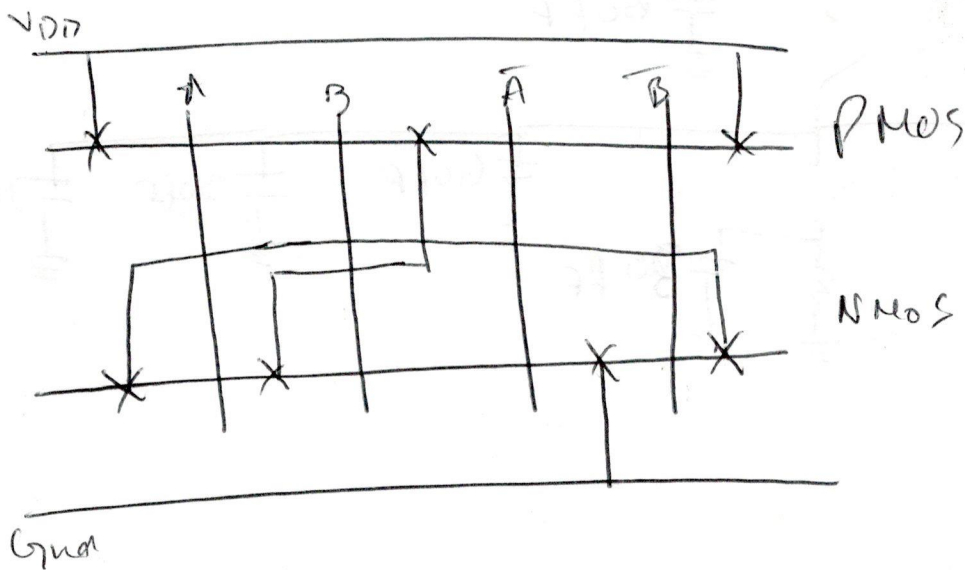
Q-1)  $Y = \overline{A \oplus B}$

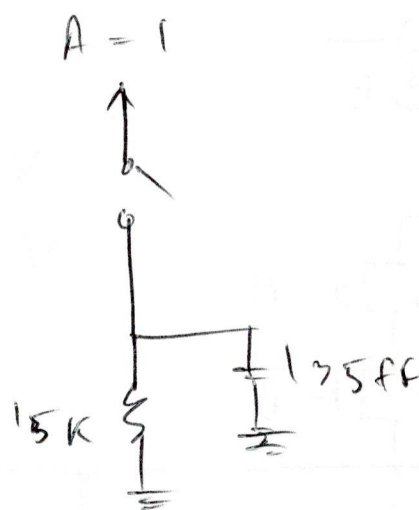
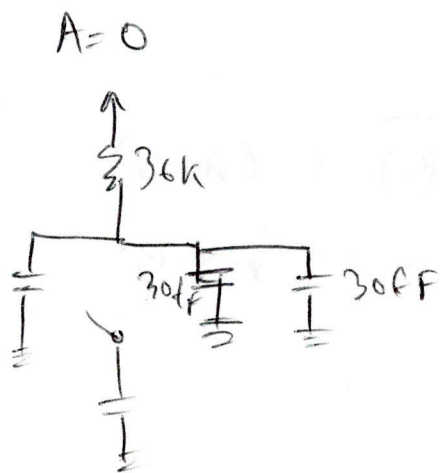


$$Y = \overline{(A+B) + (A+B)}$$

$$Y = \overline{A+B} + A+B$$

$A=0, B=0$

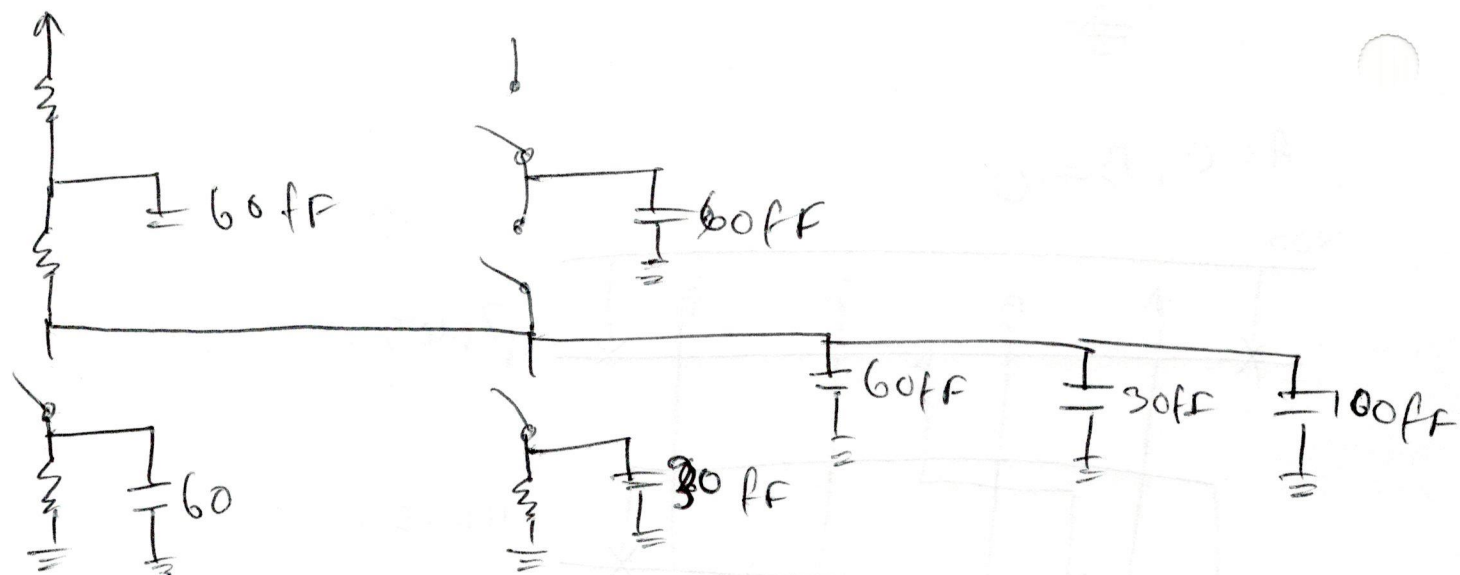




$$\text{delay} = (15k)(135fF)$$

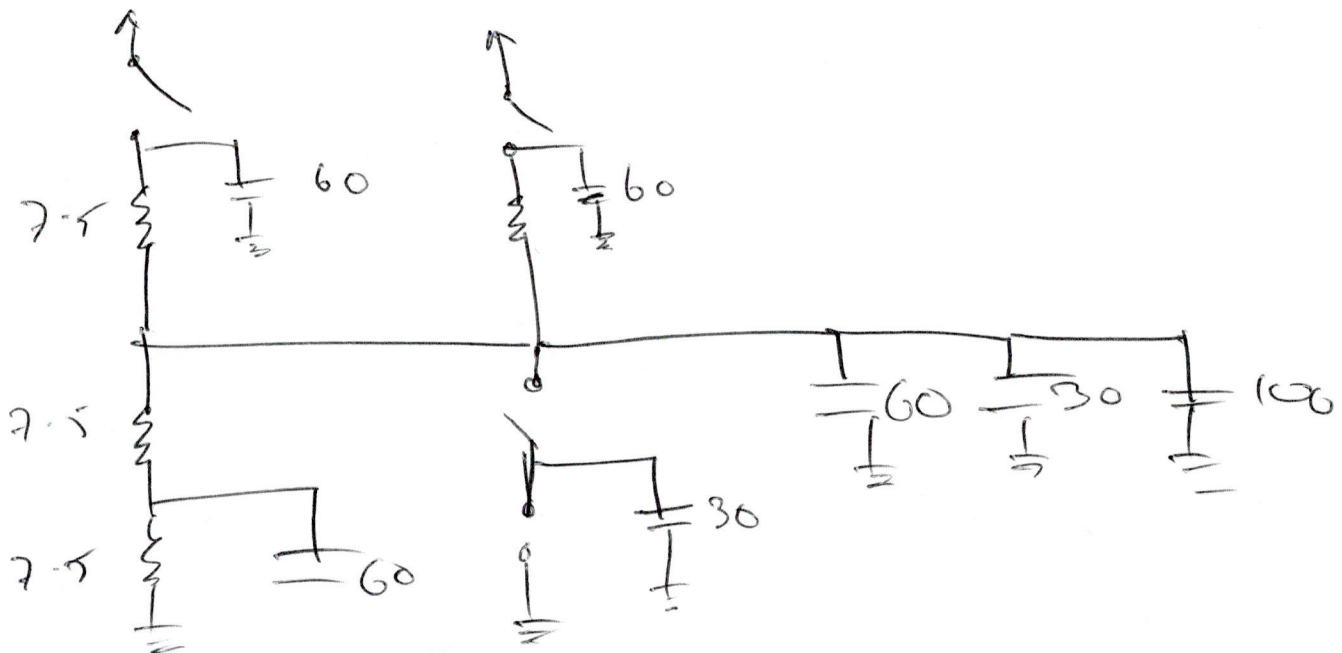
$$= 2025 \text{ ps}$$

$A = 0$        $B = 0$



Q-1) Continued.

$A = 1$        $B = 0$



$$\text{delay} = (15k)(60 \times 30 + 100) + (15)(60)(2 \times 1850 + 900 + 900)$$

$$= 4650 \text{ ps}$$

$$\text{total delay} = 4650 + 2025 = 6675 \text{ ps}$$