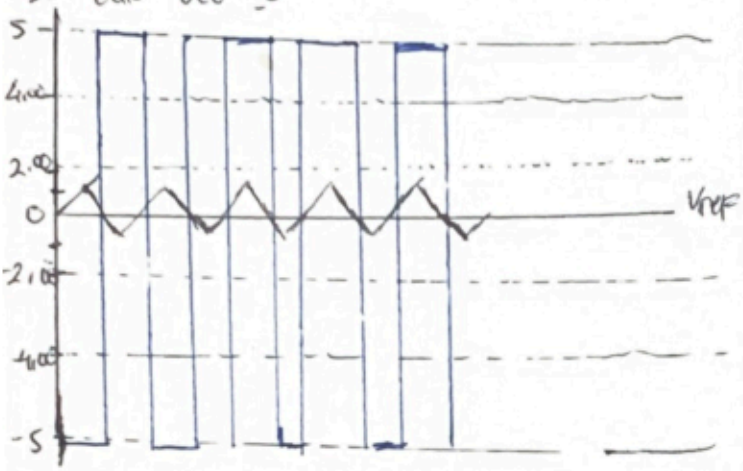
Remedial Tugas RE II

ENRICO SEBASTIAN GULTOM
04201030

1] a. besar nilai $V_{REF} = 0$

b. dik $V_{CC} = \pm 5$

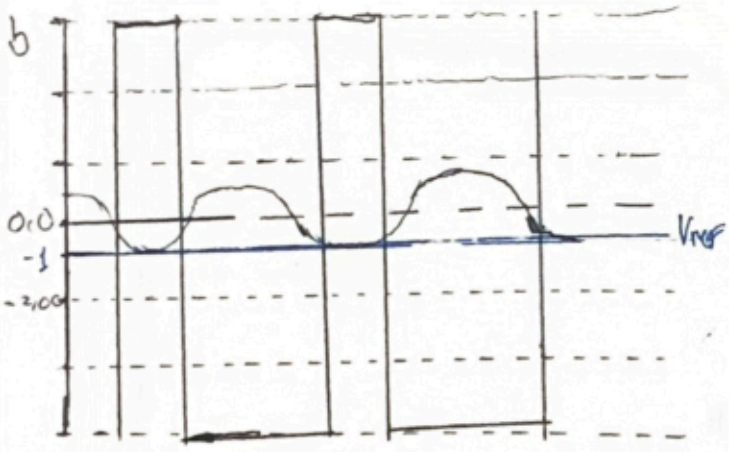


2] Dik: $R_1 = 30$
$R_2 = 10$

a. $V_{ref} = \frac{R_2}{(R_1 + R_2)} \times (-V_{CC})$

$= \frac{10}{(30+10)} \times -4 = -1$ Volt

=



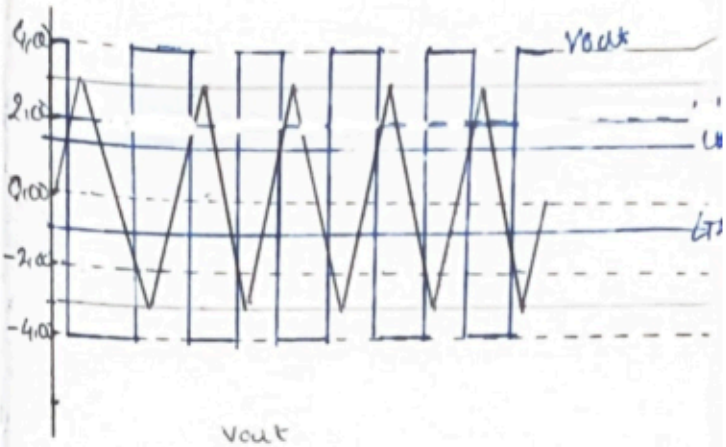
3] Dik = $V_{sat} = \pm 4$
$R_1 = 10\,k\Omega$
$R_2 = 15\,k\Omega$

a. $V_{ref} = \frac{R_1}{(R_1 + R_2)} \times V_{sat}$

$= \pm 1.6$ volt

$V_{HH} = +1,6$ Volt

$V_{LH} = -1,6$ Volt



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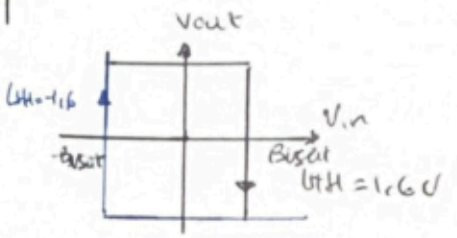


4] Dik = $R_1 = 15$ $R_2 = 40$

a) $\frac{(V_{REF} - 1)}{(V_{out} - 1)} = \frac{R_1}{(R_1 + R_2)}$

$V_{ref} = \left(\frac{R_1}{R_1 + R_2}\right) \times (V_{out} - 1) + 1$

$= \frac{15}{(15+40)} \times (V_{sat} - 1) + 1$

$= 0,272727 \times (\pm 4 - 1) + 1$

$V_{HH} = 0,272727 \times (4 - 1) + 1$

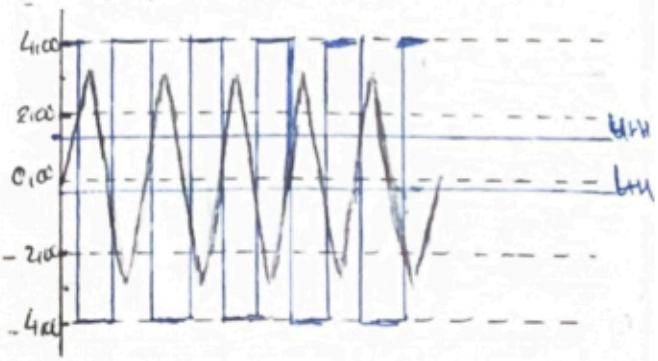
$= 1,09$

$V_{LH} = 0,272727 \times (-4 - 1) + 1$

$= -1,36 + 1$

$= -0,36$ Volt

b)



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