



Prob A.IV.1. $f = 339 \text{ Hz}$, $R_2 = 2 \text{ k}\Omega$. 

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Prob A.IV.3. $f = 6.5 \text{ kHz}$, $R_1 = 290 \text{ k}\Omega$. 

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Prob A.IV.4. $f_s = 2.015 \text{ MHz}$, $f_p = 2.018 \text{ MHz}$.

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Prob A.IV.5.

A) Disparador Schmitt: $V_{OH} \approx 11 \text{ V}$, $V_{OL} \approx -11 \text{ V}$, $V_{TH}(1 \rightarrow 0) = 5.5 \text{ V}$, $V_{TL}(0 \rightarrow 1) = -5.5 \text{ V}$;

$T = 12.4 \text{ ms}$ 

B) Disparador Schmitt: $V_{OH} = 5 \text{ V}$, $V_{OL} = 0 \text{ V}$, $V_{TH}(1 \rightarrow 0) = 3 \text{ V}$, $V_{TL}(0 \rightarrow 1) = 2 \text{ V}$;

$T = 4.58 \text{ ms}$.

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Prob A.IV.7. Problema resuelto en el libro *Electrónica Básica para Ingenieros: Problemas Resueltos*, Problema 90, pág. 255.

Disparador Schmitt: $V_{OH} = 12 \text{ V}$, $V_{OL} = -12 \text{ V}$, $V_{TH}(1 \rightarrow 0) = V_d$, $V_{TL}(0 \rightarrow 1) = -V_d$.

$T = 0 \text{ }^\circ\text{C}$: $V_d = 0.75 \text{ V}$, $T_{\text{per}} = 250 \text{ }\mu\text{s}$, $f = 4000 \text{ Hz}$.

$T = 25 \text{ }^\circ\text{C}$: $V_d = 0.7 \text{ V}$, $T_{\text{per}} = 234 \mu\text{s}$, $f = 4280 \text{ Hz}$.

$T = 50 \text{ }^\circ\text{C}$: $V_d = 0.65 \text{ V}$, $T_{\text{per}} = 217 \mu\text{s}$, $f = 4611 \text{ Hz}$.

$T = 100 \text{ }^\circ\text{C}$: $V_d = 0.55 \text{ V}$, $T_{\text{per}} = 183 \mu\text{s}$, $f = 5450 \text{ Hz}$.


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Prob A.IV.8. 

1) $f \approx 500 \text{ Hz}$.

2) $f \approx 480 \text{ Hz}$.

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Prob A.IV.9. 1) $T \approx 0.55 \text{ ms}$, 2) $T \approx 0.203 \text{ ms}$. 

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Prob A.IV.10. $R_A = 8.64 \text{ k}\Omega$, $R_B = 2.88 \text{ k}\Omega$. 

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Prob A.IV.11. $f = 38.3 \text{ kHz}$