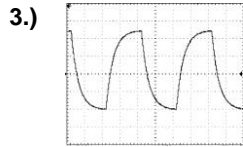


# Respostas dos Exercícios

## Prática 4: Osciloscópio e Corrente Alternada

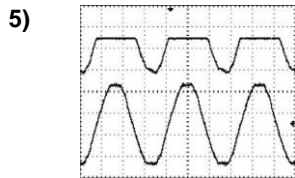
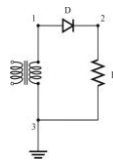
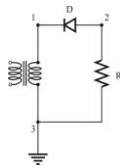
1.)  $r_i = 611,53 \Omega$

2.)  $f = 4.103s$ ;  $V=40mV$

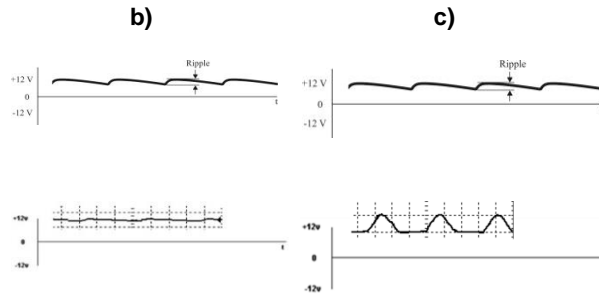


4 a) Sinal de entrada senoidal  $\sim 3,6V$ ; Sinal de saída  $\sim 2,5V$ .

b) Sinal de entrada senoidal  $\sim 3,6V$ ; Sinal de saída  $\sim 2,5V$ .



6) a) Ao se retirar o capacitor teremos um circuito Diodo-Resistor e a forma da curva seria a abaixo:



7) b)  $r = 0,1667 \Rightarrow r = 16,67\%$

c)

$R(\Omega)$	$r$	$r\%$	$\tau$	$T(s)$	
100K	0,001667	0,1667	$10^1$	$17.10^{-3}$	$\tau \gg T$
10K	0,01667	1,667	$10^0$	$17.10^{-3}$	$\tau \gg T$
1K	0,1667	16,67	$10^{-1}$	$17.10^{-3}$	$\tau \gg T$
100	1,667	166,7	$10^{-2}$	$17.10^{-3}$	$\tau > T$
10	16,67	1666,7	$10^{-3}$	$17.10^{-3}$	$\tau \sim T$ (mesma ordem de grandeza)

A aproximação  $\tau \ll T$  ocorrerá para  $R < 10$ .