
ITLA
INSTITUTO
TECNOLÓGICO DE
LAS AMÉRICAS
Las Americas Institute of Technology

Datas tables

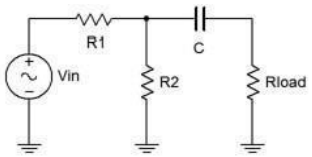


Figure 11.1

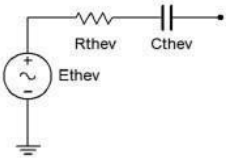


Figure 11.2

Tabla 11.1

Vload Theory	218mV
Vload Original	227mV

Tabla 11.2

	Theory	Experimental	%Deviation
EThevenin	450mV	437mV	2.9%
ZThevenin	891.89-	891.89-	0%

Vload Theory	218mV
Vload Original	221mV
Vload Thevenin	188mV
%Deviation	19.4%

Practica de Thermica

table 11.1

$$\frac{227-206}{\frac{227+206}{2}} \times 100\% = 9.7\%$$

table 11.2

$$\frac{450-437}{\frac{450+437}{2}} \times 100\% = 2.9\%$$

table 11.3

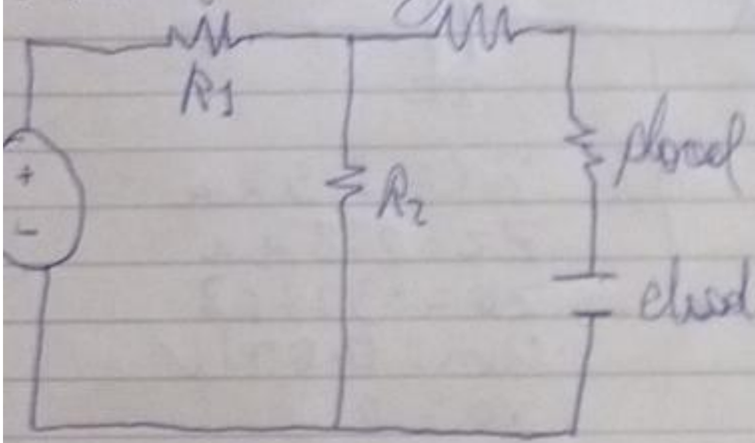
$$\frac{221-183}{\frac{221+183}{2}} \times 100\% = 18.8\%$$

table 11.4

$$\frac{431-412}{\frac{433-420}{2}} \times 100 = 2.6\%$$

lab : Circuits

V load theory



V_{IN} = 1 V
f = 10 KΩ
R1 = 1.5 KΩ
R2 = 2.2 KΩ
L = 10 mH
R1 = 1 KΩ
C = 0.1 UF

X_L = 2π.10 mH.10 KHz = J 628.32

X_C = (1/2π)(0)(1 UF)(10 KHZ) = J 159.13

Z23 = 2/23 = (2200)(6100 + J 496.17) / (2200 + 1000 + J 469.17)

19.33 + J ?

10.33 + J 217.02

V_{R1C1} = V_{23} · (R1 + XC) / (XL + RL + XC)

0.701 - J 0.0354

218 m VL - 13.102

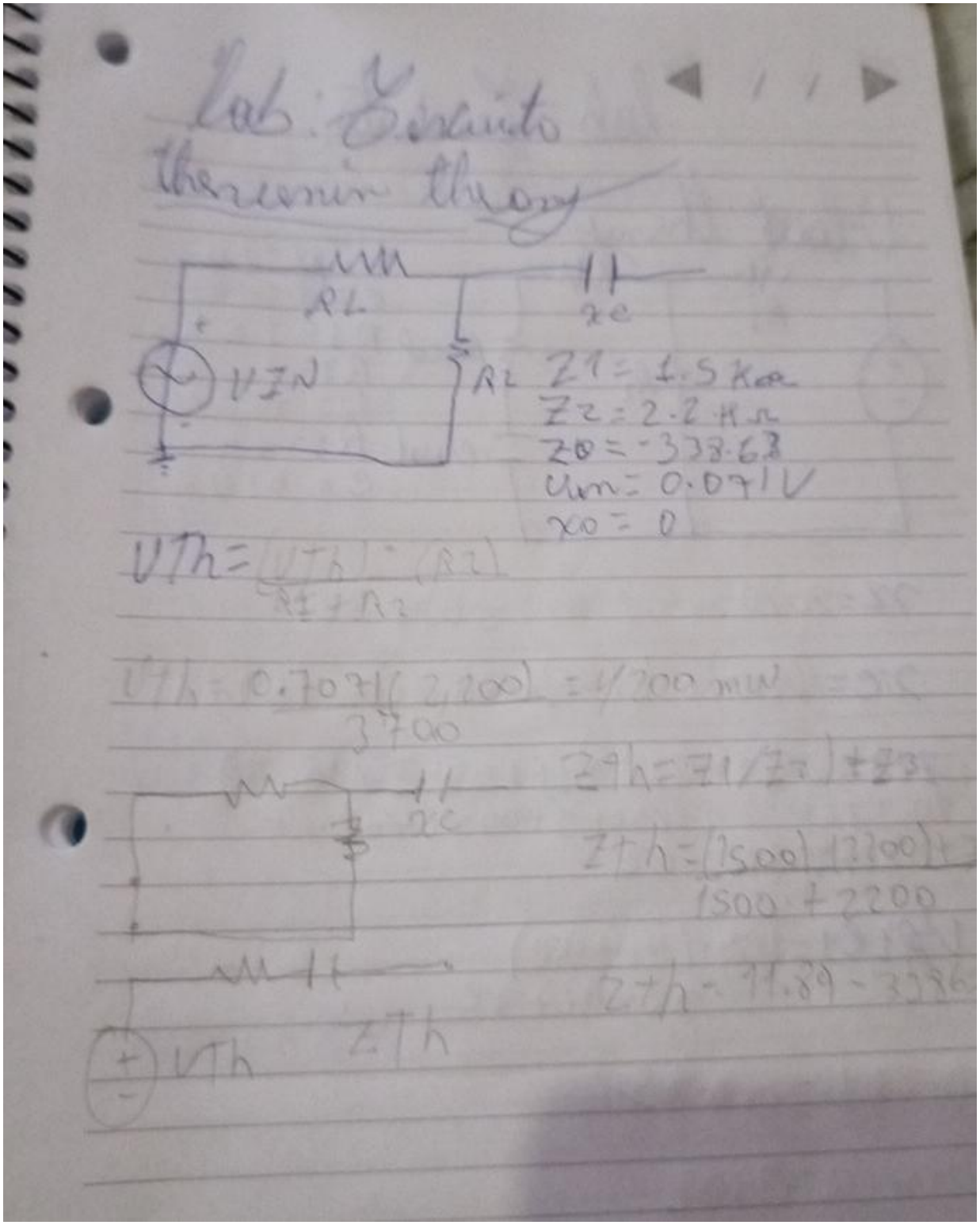
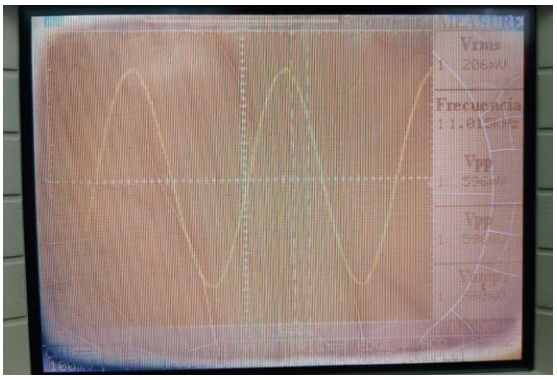


Table 11.3

	Theory	Experimental	%Deviation
EThevenin	450mV	431mV	2.6%
ZThevenin	891.89-J628.32	891.89-J628.32	0%

Vload Thevenin

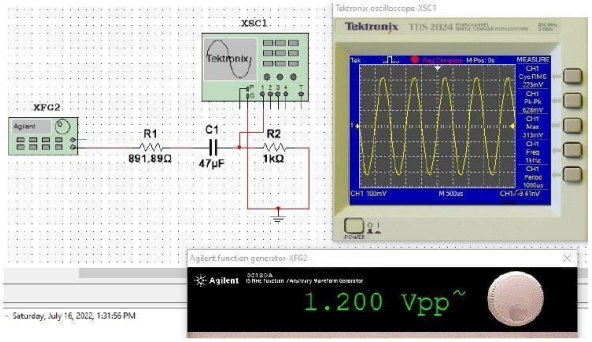


Fotos en físico y en multisim

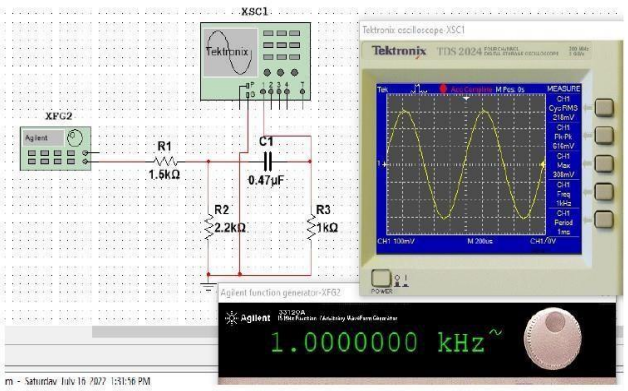
C

Vload original

E

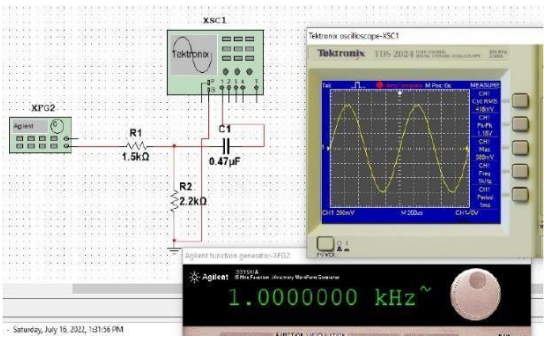


Thevenin

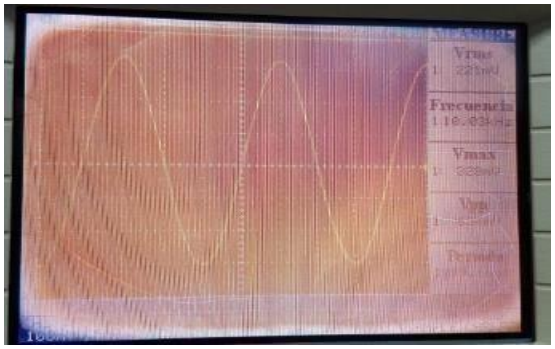


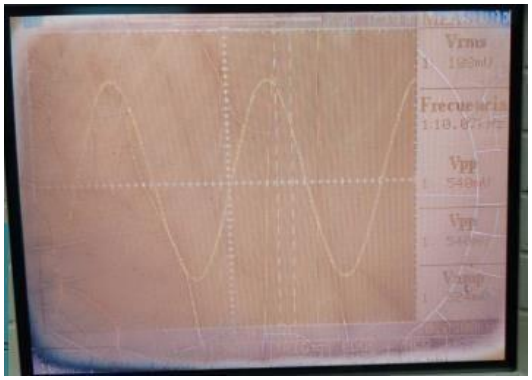
Vload Thevenin

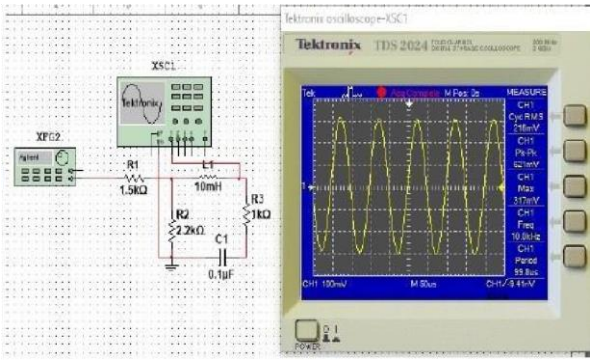
B

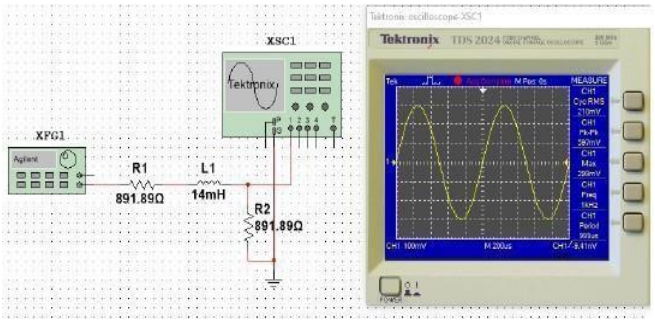


Vload original



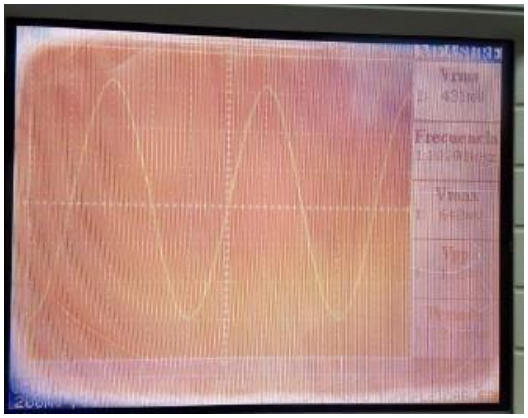


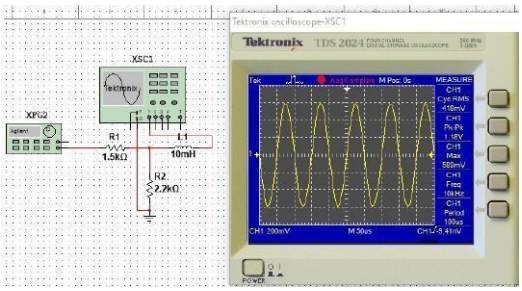




Preguntas

E Thevenin





1. How does the AC version of Thevenins Theorem with the DC Version?

La diferencia es que en DC se busca la resistencia equivalente y en AC se busca la impedancia equivalente.

2. Would the Thevenin equivalent circuits be altered if the source frecuency was changed? If so, why?

Sí, se puede alterar si se cambia la frecuencia, ya que la reactancia de los capacitores e inductores cambiaria, esto provocaría que la impedancia sea diferente y el voltaje de Thevenin como la impedancia de Thevenin se verían afectados.

3. Based on the results of this exercise, would you expect Nortons Theorem AC to behave similary to its DC case?

Sí, para buscar la impedancia de Thevenin sería el mismo método y la corriente. Lo único que tendríamos serian ángulos y módulos diferentes.