MUNI
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Učo :

Name:

Group:

Date:
Month:
Year:

IV.

NOTICE: [ ] fill in the units in the square brackets

Task: Measuring the voltage and frequency of electric signals with the oscilloscope

Key words: electron, electromagnetic force, voltage, frequency

n.	Y	S	U voltage [ ]
1.			
2.			
3.			
4.			
5.			

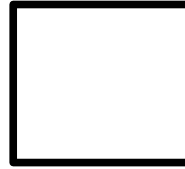| n.	N	X	T	f frequency [ ]
1.				
2.				
3.				
4.				
5.				

Example of U value and f value calculation:

Discussion
Importance for the medicine / connection with the health and illness:

Possible errors and accuracy:

Conclusion:

Učo :

Group:

Date:
Month:
Year:

Name:

Task: Frequency dependence of tissue and tissue model impedance.

Key words: resistance, impedance, capacitance, Ohm law, capacitor

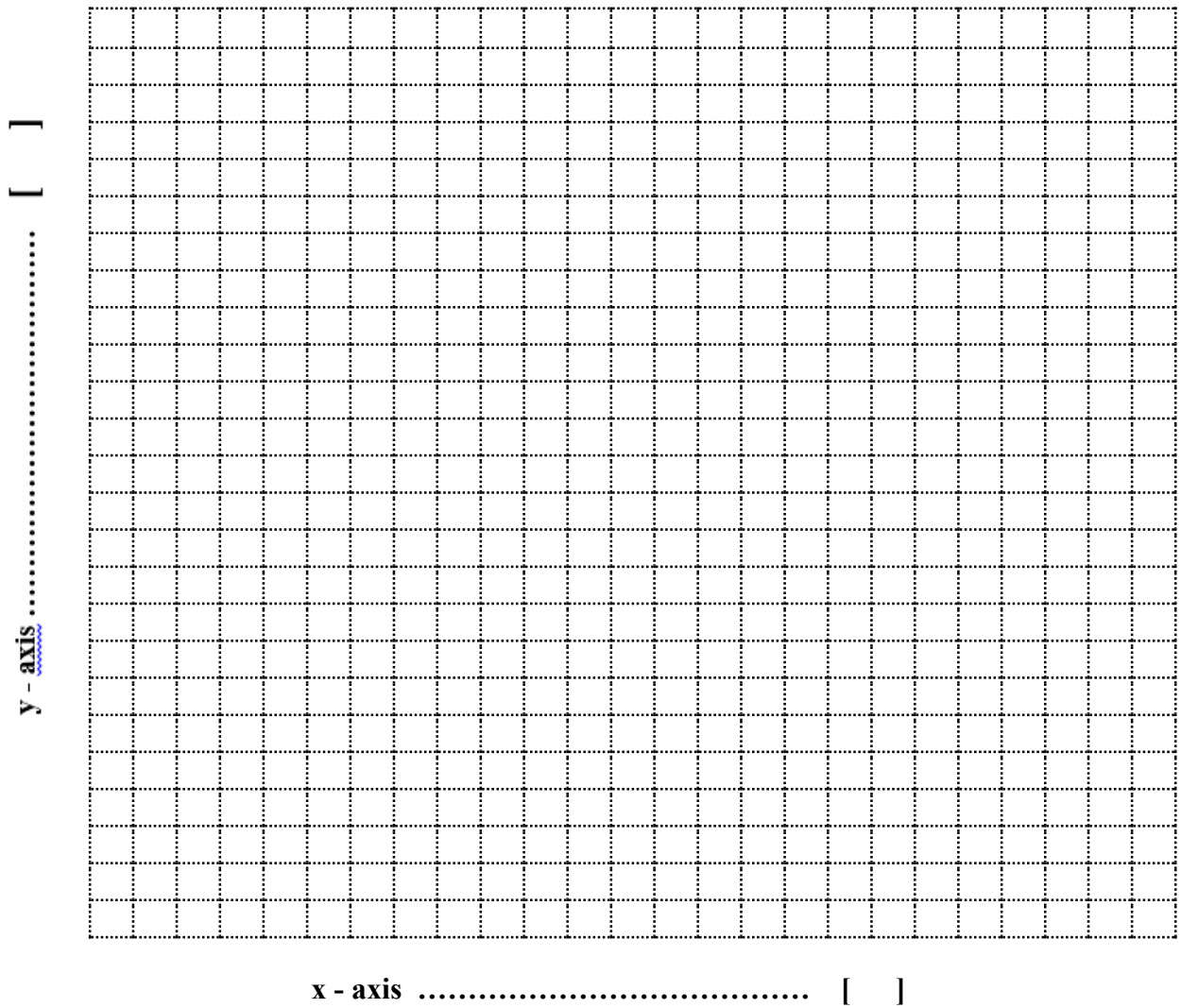| Model Rn	input	Ug			output	Ur			R= [ ]
frequency (Hz)	defl. fact. S	divisions Y	Voltage (V) U=S* Y		defl. fact. S	divisions Y	Voltage [ ] U=S* Y		Z [ ]
100	0.5	2	1						
250	0.5	2	1						
500	0.5	2	1						
750	0.5	2	1						
1000	0.5	2	1						
2000	0.5	2	1						
4000	0.5	2	1						
100K	0.5	2	1						

Model Z	input	Ug			output	Ur			R= [ ]
frequency (Hz)	defl. fact. S	divisions Y	Voltage (V) U=S* Y		defl. fact. S	divisions Y	Voltage [ ] U=S* Y		Z [ ]
100	0.5	2	1						
250	0.5	2	1						
500	0.5	2	1						
750	0.5	2	1						
1000	0.5	2	1						
2000	0.5	2	1						
4000	0.5	2	1						
100K	0.5	2	1						

Real tissue	input	Ug			output	Ur			R= [ ]
frequency (Hz)	defl. fact. S	divisions Y	Voltage (V) U=S* Y		defl. fact. S	divisions Y	Voltage [ ] U=S* Y		Z [ ]
100	0.5	2	1						
250	0.5	2	1						
500	0.5	2	1						
750	0.5	2	1						
1000	0.5	2	1						
2000	0.5	2	1						
4000	0.5	2	1						
100K	0.5	2	1						

Example of Z value calculation:

Graph:

y - axis .... [   ]

x - axis ……………………………… [   ]

Discussion
Importance for the medicine / connection with the health and illness:

Possible errors and accuracy:

Conclusion:

Task: Skin resistance
Key words: resistance, electrical conductivity, ion, electric charge

Table of measured resistance values:

epidermis	resistance [ ]
natural	
wiped by alcohol	
applied saline solution	
applied ECG gel	

Discussion
Importance for the medicine / connection with the health and illness:

Possible errors and accuracy:

Conclusion: