



**Group :**

**Date :**

**Members of the**  
**Group:**

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**Practical Work Report 4: oscilloscope 2**

**I. periodicity and frequency measurement experience:**

1. Choose a 2V sinusoidal signal, use the chronometer to adjust the selected frequencies on the signal generator, and fill in the following table:
- 2.

|  |     |      |      |
|--|-----|------|------|
| Frequency recorded on chronometer(Hz)                  | 200 | 1000 | 4000 |
| Time caliber used                                      |     |      |      |
| The length of the periodicity drawn on the screen (cm) |     |      |      |
| periodicity $T(S)$                                     |     |      |      |
| Frequency $f (Hz)$                                     |     |      |      |

3. Method of filling the table:

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3. What is your observation and what do you conclude?

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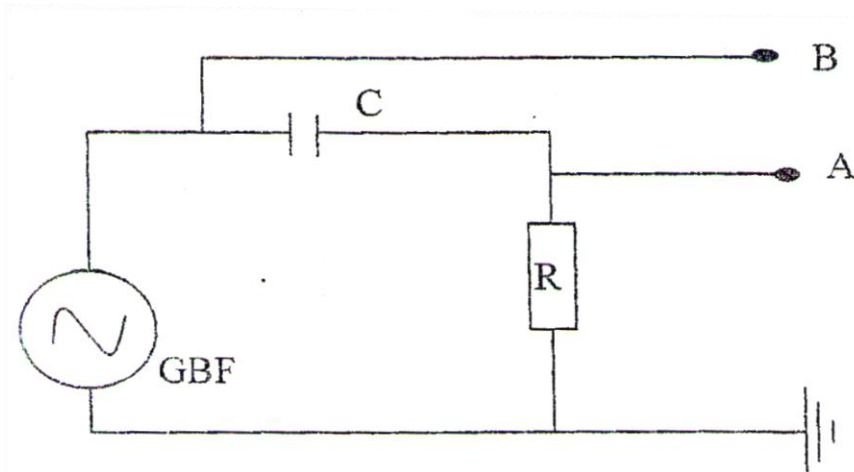
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**II. Experiment of measuring phase difference by direct method:**

Fill in the table after installing the electrical circuit and adjusting the frequency of the generator by the chronometer to 100Hz and the resistance to  $R=1400\Omega$ .



| 10 | 5 | 1 | 0.5 | 0.1 | $C(\mu F)$        |
|----|---|---|-----|-----|-------------------|
|    |   |   |     |     | $L(T(cm))$        |
|    |   |   |     |     | $\delta t(cm)$    |
|    |   |   |     |     | $\varphi_{exp}^0$ |
|    |   |   |     |     | $\varphi_{th}^0$  |

1 How to fill the table?

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**III. Experiment with Phase Difference Measurement by Lesago Method:**

1. Keep the same as the previous one and delete the time rule, and fill in the table

|    |   |   |     |     |                   |
|----|---|---|-----|-----|-------------------|
| 10 | 5 | 1 | 0.5 | 0.1 | C( $\mu$ F)       |
|    |   |   |     |     | AB                |
|    |   |   |     |     | ab                |
|    |   |   |     |     | $\varphi_{exp}^0$ |
|    |   |   |     |     | $\varphi_{th}^0$  |

2. How to fill the table?

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3 .Comparison of experimental and theoretical results in each method:

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**Conclusion :**

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