

Ersatz für Kapitel 7 in der Versuchsanleitung:

10 questions regarding RLC circuit, that we were talking about

1. What is the difference between direct and alternating current, by which mathematical functions can alternating current be represented
2. What are the components of the electrical oscillating circle?
3. On which effect is based the usage of the coil? Which law in physics describes it? What is the unit of inductivity and its meaning?
4. What is capacitor and what are his properties. How is the ability to store electricity in a capacitor measured - with which quantity? What is the equation connecting it to voltage and charge stored in a capacitor?
5. How are the oscillations in RLC circuit produced?
6. Kirchhoff's laws.
7. How can we generalize the Ohm's law for the case of alternating current? Give the formula. What are the inductive and capacitive resistances and its properties?
8. How are the phase differences produced, what happens with a phase difference between current and voltage - on capacitor and on coil.
9. What is the resonant frequency? What happens at this frequency? What is the equation for it.
10. What happens if we put a capacitor in the direct circle current? Are there transformers and coils also used in the case of direct current? Why?