

Test Six Topics:

- RMS Resistive Power Loss (I^2R)
- AC Reactance, Impedance, Power Factor
- RC & RL Circuit Analyses, DC Transients, Time Constants
- RCL Circuit Analysis
 - Calculate Series RCL Impedance
 - Calculate Series RCL Resonance Frequency
 - Determine whether Series RCL circuit at resonance has maximum or minimum current
 - Calculate Parallel RCL Impedance
 - Calculate Parallel RCL Resonance Frequency
 - Determine whether Parallel RCL circuit at resonance has maximum or minimum current

Review materials include:

- Reading Assignments & Homework Problems
- Course Notes
- Review Problems including Reactance & Impedance Quizzes

Types of possible exam questions and problems:

- Equivalent Capacitances and Inductances (series & parallel)
- Calculate complex impedance (resistive, capacitive reactance, inductive reactance)
- Sketch resistor-capacitor and resistor-inductor transient voltage curves
- Determine DC transient voltages & current for simple RC & RL circuits
- Calculate RC & RL time constants
- Calculate RMS Resistive Power Loss (I^2R)
- Application of Ohm's Law to AC Circuits (AC Reactance, Impedance, Power Factor)
- Calculate RCL Resonance Frequencies (Series and Parallel)

For the test, you may use:

- a calculator,
- two page of YOUR OWN self-generated review notes

*Note: Phones may **NOT** be used during the exam; NOT as calculators, NOT as Internet connections, NOT for resource retrieval (i.e., electronic copies of notes, files, tables, etc.), NOT for communications. If the exam proctor suspects the use of a phone during the exam, your test will be confiscated and zero points will be assigned.*