BME/ISE 3511 Bioelectronics I, Test Six emphasis three main topics:
   Delta & Y Configurations (including simplified equivalent resistive circuits)
   Design Voltage Divider Network (10 % Rule)
   Principles of Superposition

Types of possible exam questions and problems:

  Use following techniques to solve for current through and voltage across a network resistor:
    Equivalent Resistances
    Kirchoff's Voltage Law
    Kirchoff's Current Law
    Principle of Superposition
    Thevenin Equivalent
    Norton Equivalent

  Sketch Series Resistors Voltage Divider (including voltage source)
  Calculate voltage across load resistor
  Voltage Divider (Resistors in Series with Voltage Source) $V_2 = V (R_2 / (R_1 + R_2)$

  Sketch Parallel Resistors Current Divider (including current source)
  Calculate current through load resistor
  Current Divider (Resistors in Parallel with Current Source) $I_2 = I (R_1 / (R_1 + R_2)$

  Design Voltage Divider Network (10% rule for two resistors and voltage source) given output requirements

  Convert Delta configuration to equivalent Y configuration
  Convert Y configuration to equivalent Delta configuration

  Solve Voltage Source & Current Source Circuit Network Problems (using Superposition)

  Note: You can also expect one or two problems dealing with topics from Test 5, namely;
    Series RCL Circuit - Calculate impedance (both magnitude & phase angle) and dissipated power.
    Parallel RCL Circuit - Calculate impedance (both magnitude & phase angle) at resonant frequency and
    dissipated power at resonant frequency.

See BME/ISE 3511 Test 6 Course Notes for example problems and solutions.

*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.*