TOPICS

Current, Voltage, Power, Energy
KCL, KVL, Ohm's Law
Series, Parallel, Short Circuit, Open Circuit
Voltage Sources, Current Sources
Equivalent Resistance, Network Analysis
Voltage-Division, Current Division
Node-Voltage Analysis
Mesh-Current Analysis
Thevenin and Norton Equivalent Circuits
Maximum Power Transfer
Superposition
Wheatstone Bridge
Capacitance, Inductance: Voltage, Current, Power, Energy
Series, Parallel, Mutual Inductance
First Order RC and RL Circuits, DC Steady State
Complex Numbers: Rectangular, Polar, Exponential
Sinusoidal Sources: Period, Frequency, Phase Angle, RMS, Phasors
Complex Impedances, Steady-State Analysis
AC Power: Real, Reactive, Apparent, Power Factor
Thevenin and Norton, Maximum Power Transfer
Three-Phase Wye-Wye Connected System, Three-Phase Power
Ideal Transformers
U.S. Power Grid

Practice Questions
T1.1 (a-j)
E2.29
P4.9
T5.4