Outline for Unit 3 Test

Circuits

Know these circuit components: What does it do? What is its symbol in a schematic diagram?

Battery, resistor, voltmeter, ammeter, switch.

Be familiar with these terms. You will not be asked to write out a formal definition but you are expected to know what the term means.

Resistance, current, voltage, electric potential difference, electric potential energy, series circuits, parallel circuits, Electron current, conventional current, open circuit, closed circuit

Some (not all) Theory topics to know in case you are asked to discuss them in detail.

What causes resistance?
What are the four factors that affect the amount of resistance in a conducting wire?
How do these four factors affect the amount of resistance in a conducting wire?
What happens to Voltage and Current through certain parts of a circuit?
What is the purpose of the battery for the circuit? What does it do to charges?

Other short answer style topics that you need to know how to do.

Drawing schematic diagrams.
Labelling components in a schematic diagram.

Solve for V, I, and R in series and parallel circuits. Note, no work is required for these.
Solve for V, I, R, ΔEq or W, Q, Δt, and n in circuit problems.
Solve for R, L, A, d, r, and ρ in resistor problems.

Fields

Compare and contrast the three field types (ONLY in regards to theory learned before the break).
Solving for electric field intensity.
Qualitatively describing Electric field and charge size from a diagram.
Understand the relationship between the Electric field and equipotential lines.

Electrostatics

Solving for electrostatic force- 2 point charge problems.
Solving static equilibrium problems.
Read electroscope behaviour.
Know the three methods of charging.
Compare insulators and conductors.
Explain induced charge separation and electric dipoles.
Do drawings for electroscopes and charging techniques.