I. Magnetostatic Fields
   A. Magnetic field / magnetic flux density
   B. The Biot-Savart law (line / surface / volume currents)
   C. Magnetic field of a current segment (finite, semi-infinite and infinite length)
   D. Magnetic field of circuits consisting of current segments
   E. Current loop - magnetic field on the axis
   F. Solenoid - magnetic field
   G. Ampere's law
      1. Integral form
      2. Differential form
      3. Determine magnetic fields of symmetric current distributions
   H. Toroid - magnetic field
   I. Curl operator
   J. Stoke's theorem
   K. Gauss's law for magnetic fields
      1. Integral form
      2. Differential form
   L. Static electric and magnetic field characteristics - curl and divergence
   M. Magnetic vector potential

II. Magnetic Forces, Materials and Devices
   A. Lorentz force equation
      1. Electric force
      2. Magnetic force
   B. Force on currents in magnetic fields (line / surface / volume currents)
   C. Torque on a current loop
   D. Magnetic moment
   E. Magnetic dipole far field
   F. Equivalent sources - bar magnet, current loop, solenoid
   G. Magnetization
      1. Relative permeability
      2. Hysteresis
   H. Magnetic field boundary conditions
      1. Normal magnetic flux
      2. Tangential magnetic field (scalar and vector relationships)
   I. Inductors and inductance
      1. Self and mutual inductance
      2. Internal and external inductance
   J. Magnetic forces on magnetic materials
   K. Magnetic circuits

- You are allowed (1) 8.5x11" formula sheet.
- Differential operator formulas will be provided (all coordinate systems).
- Non-trivial integration formulas will be provided.