

Printed Name: _____.

PHYSICS 331

MISSION 5: MAGNETOSTATICS (38+2)PTS)

Problems mentioned refer to David Griffith's *Introduction to Electrodynamics*, 5th edition. Skip two problems. Each problem worth 4pts.

Problem 42 Problem 5.9 (magnetic field due some standard current configurations)

Problem 43 Problem 5.11 (finite solenoid)

Problem 44 Problem 5.13 (magnetic vs. electric force on two wires)

Problem 45 Problem 5.14 (Ampere's Law straight wire)

Problem 46 Problem 5.15 (Ampere's Law infinite slab current)

Problem 47 Problem 5.20 (independence of bounding surface in steady current case)

Problem 48 Problem 5.25 (magnetic vector potential, straight line segment)

Problem 49 Problem 5.27 (magnetic vector potential for uniform magnetic field)

Problem 50 Problem 5.29 (magnetic vector potential, plane surface current)

Problem 51 Problem 5.31 (concerning the weirdness of a magnetic scalar potential)

Problem 52 Problem 5.37 (magnetic dipole moment of current loop and its connection to pure dipole in far-field limit)

Problem 53 Problem 5.60 (magnetic dipole in otherwise uniform magnetic field)