ECE 18-316 INTRO TO DATA STORAGE FALL 98 <u>PROBLEM SET #4</u> Due Friday, 9/25/98 In Class or To Jie Zou Before Start of Lab Section (1:30 PM) Late submissions will not get credit

1a. Using the approach described in lecture 6, calculate the magnetic moment of Fe3+ assuming an electronic configuration 3d5.

1b. If these moments sit at the lattice sites of a body-centered cubic structure with a lattice parameter of 2.87Å (i.e. 0.287 nm) what is the magnetization, in A/m?

(Note: The Å symbol stands for an Angstrom, which is 10^{-10} m. This symbol was not used in the email version of this assignment, be aware of this.)