CHM 1020-01 **QUIZ 3** **September 15, 2000**

This quiz is take-home and open book, and it is intended that all members of the group contribute to completing it. It is a violation of the Academic Honor Code to sign a quiz that you did not work on.
The quiz is due at the end of class on Thursday, September 21.

List names in alphabetical order, and give social security numbers! Put names on all pages, and staple pages together

Points

(3) 1. Calculate the **wavelength** of the radio waves used to broadcast the AM station at 1210 KHz.

(3) 2. Calculate the energy of a quantum of red light with a wavelength of 700 nm. (Planck's constant, $h = 6.63 \times 10^{-34}$ Js.

(3) 3. Give the electronic configuration for the following elements. (Use the abbreviation style shown in the example).

Example: B $1s^2 2s^2 2p$

N	Si
Ne	Cl
K	F

List names in alphabetical order. **Be sure to staple pages together!**

(6) 4. Give the **maximum** number of electrons that can be found in:

(a) The third **shell** (n = 3)

(b) The 2s **orbital**

(c) The **subshell** of 3p orbitals.

(d) The fifth **shell** (n = 5)

(e) The **subshell** of 4d orbitals

(f) One 4p **orbital**.