Quiz Three
Chemistry 121/100 FGH **Name**_____

1. Give the name of the following polyatomic ions: **(4 pts)**

   a. HCO_3^{1-} bicarbonate b. CN^{1-} cyanide c. OH^{1-} hydroxide d. $C_2H_3O_2^{1-}$ acetate

2. Give the name for each element below. **(5 pts)**

   a. Ag silver

   b. Au gold

   c. Pb lead

   d. K potassium

   e. Sn tin

3. Solve using: **heat = S.H x mass X ΔT (4pts)**

   How many joules of heat energy are released when 500.0 g of aluminum is heated from 22.0°C to 200.0°C? The specific heat of aluminum is 0.900 J/g°C.

200.0
-22.0
178.0

$\Delta T = 178.0°C$ $heat = (0.900 J/g°C)(500.0 g)(178.0°C) = 80,100 J$

$8.010 \times 10^4 J$ (4 s.f.)

4. Explain the difference between: **(4 pts)**

   a. kinetic energy and potential energy (give examples)
   Kinetic energy is the energy of motion. Potential energy is stored energy. Examples of kinetic energy include heat, running water, electrical current, objects falling etc. Examples of potential energy include food, batteries, gasoline etc.

   b. metals and non-metals (give examples)
   A metal is a conductor and is malleable and ductile. Non-metals are insulators. All elements to the left of the dark ziz-zag ling are metals. All elements to the right of this divider are non-metals. Those touching the line are metalloids or semi-metals.

5. List the **SIX remaining** elements that exist as diatomic molecules. Write the name and the formula. The first one is done as an example: **(3 pts)**

Hydrogen	H_2
Oxygen	O_2
Nitrogen	N_2
Fluorine	F_2
Chlorine	Cl_2
Bromine	Br_2
Iodine	I_2