General Guide to typical Chem 120 quiz length, organization, and general types of questions. Time allotted ~20 minutes.

Name _____ Quiz 1 / Chem 120 Circle one Lab Sec.: M/W 11:00 AM or 2:30 PM

Multiple Choice Questions:

- 1. Which of the following pairs can be used to illustrate the law of multiple proportions? (Choice of different molecular formulas)
- 2. Which of the following atomic symbols is incorrect? (Choice of different symbols)
- 3. The element X exists as two stable isotopes and 18 unstable isotopes. X-130 has in its nucleus (Choice of different # of protons and # of neutrons)
- 4. Which of the following elements is most likely to be a good conductor of electricity?
- 5. The common cation of an element has how many of the following particles?

e⁻_____ p⁺_____ n _____

- 6. Circle the pair of elements would be most likely to form an ionic compound.
- 7. How many significant figures are there in the following numbers?
- 8. Write the following numbers in scientific notation rounding off the to three significant figures:
- 9. Rank the following set of data by increasing mass:

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10. Rank the following in increasing order of precision and accuracy for the four different methods 1, 2, 3, and 4,

Precision:	 	
Accuracy:	 	

Consider the illustration of a two pan balance for two solid cubes. Circle one choice for each of the following statements.

- (T / F) The density of A is great than B.
- (T / F) If A floats in water, B will not.
- (T / F) If A floats in pure water, and 20% of the volume of the cube is above water, then less than 20% will be above the water's surface for B.

g/cm³

12. Consider the the illustrations that follow. *Note:* The atoms and molecules in the illustrations are repectively the same in each. Each of the atoms that form the respective molecules are approximately the same mass as atoms in the individual illustrations. (The boxes illustrate a container that has the same volume.)



В

Which example is a mixture of different gases? ______ Which illustration is a solid? ______ Which gas has the highest density? ______ Which gases have the lowest density? ______

13. A collapsing star is estimated to have a mass of 1×10^{36} kg and a volume of 7.5 m³. Calculate the density of the star in units of grams per cubic centimeter. Show your work below.

11.

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