Bauck's CHEMISTRY Ch. 5 Test Review

This is an optional assignment due the day of the test.

Materials: loose leaf paper, pen and/or pencil (You will be given a periodic table.)
Test date: _____
Test value: 200 points
Test format: multiple choice**;** short answer essays; formula writing and naming; formula classification (BI, BM, TI, TM, or other); hydrate formula naming (given the formula, name the compound)

TOPICS TO STUDY:

1) **allotropes**—What are they? Identify examples.
2) **anhydrous**—What does this mean? Relate to **hydrates**.
3) **anion**—What is it? Compare and contrast with **cation**. Does it lose or gain electrons? Why?
4) **cation**—What is it? Compare and contrast with **anion**. Does it lose or gain electrons? Why?
5) **compound**—What is it?
6) **conductivity**—What is the relationship of conductivity to ions in solution?
7) **covalent bond**—Where does it form? Contrast with **ionic bond**.
8) **"criss-cross" method**—How does this work? Be able to do this method for BI and TI compounds.
9) **desiccants**—What are they? How do they work?
10) **hydrate**—What is it? How are they named?
11) **ionic bond**—Where does it form? Contrast with **covalent bond**.
12) **ionic compound**—What are some characteristics?
13) **polyatomic ion**—What is this? Compare and contrast with **monatomic ion**. Know the names, formulas, and charges of the polyatomic ions we use in class.
14) **molecule** vs. **formula unit—**How does they form? How can you tell if a formula is a molecule or a formula unit? Be able to identify examples of each.
15) **monatomic ion**—What is this? Compare and contrast with **polyatomic ion**.
16) **organic molecules**—How are they identified by their formulas? What is their key element?
17) **subscript**—What is this? Where is it found? Contrast with **superscript**.
18) **superscript**—What is this? Where is it found? Contrast with **subscript**.
19) Types of compounds: **BI (binary ionic), BM (binary molecular), TI (ternary ionic),** and **TM (ternary molecular)**—How and when do these form? Compare and contrast to the other types, and given an example of each.

Information from this table will be given to use when naming cations with more than one possible charge.

ION FORMULA	STOCK NAME	ION FORMULA	STOCK NAME
Cu^{+}	copper(I)	Hg^{2+}	mercury(I)
Cu^{2+}	copper(II)	Hg_2^{2+}	mercury(II)
Fe^{2+}	iron(II)	Cr^{2+}	chromium(II)
Fe^{3+}	iron(III)	Cr^{3+}	chromium(III)
Pb^{2+}	lead(II)	Mn^{2+}	manganese(II)
Pb^{4+}	lead(IV)	Mn^{3+}	manganese(III)
Sn^{2+}	tin(II)	Co^{2+}	cobalt(II)
Sn^{4+}	tin(IV)	Co^{3+}	cobalt(III)