

Bauck's CHEMISTRY Ch. 6 Test Review
This is an optional assignment due the day of the test.

Materials: loose leaf paper, pen and/or pencil, calculator (You will be given a periodic table.)
Test date: _____
Test value: 200 points
Test format: multiple choice, short answer essays, electron dot diagrams (Lewis structures), formula writing and naming, formula classification (BI, TI, other), electron configurations for ions:

- Write the name of the ion that will form.*
- Write how many electrons are gained or lost to form the ion. (Do not use + or -)*
- Draw the electron dot diagram of the ion formed.*
- Write the valence electron configuration of the ion.*
- With which Noble Gas is the ion isoelectronic?*

Topics to Review:

- 1) **Anion**—What is it? How do they form? Give an example. What is the special ending for monatomic anion names?
- 2) **Cation**—What is it? How do they form? Give an example. Contrast with **anion**.
- 3) Know the **charges (oxidation numbers)** of the representative element groups (what we call the “Charge Chant”)
- 4) **Compound**—contrast with element
- 5) **“Criss-cross” method**—How does this work? Be able to do this method for BI and TI compounds.
- 6) **Crystal lattice**—What is this? Where is this found? Relate to **salts**.
- 7) **Electron dot diagrams (Lewis structures)**—How are they drawn for an atom? How are they drawn for an ion? How are they drawn for ionic compounds? Give examples.
- 8) **Formula unit**—What is it? Where is it found? Contrast with **molecule**.
- 9) **Halide ions**—What are these?
- 10) **Hydrates**—What are they? How are they named? Give an example for this review.
- 11) **Ionic bond**—Where is this found?
- 12) **Ionic compound**—What are some characteristics?
- 13) **Isoelectronic** – What is this?
- 14) **“Middle metals”** – what does this mean for ionic charges?
- 15) **Noble Gas configuration ending**—What is this? How is this achieved?
- 16) **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.)
- 17) (honors) **Pseudo Noble Gas configuration**—How is this achieved? Why is it an exception to the octet rule?
- 18) **Octet rule**—How does this work?
- 19) **Properties of elements**— Why can they differ greatly when they are in a compound vs. alone?
- 20) **Salts**—What types of compounds are these?
- 21) **Superscript**—What is this? Where is it found? Contrast with **subscript**.
- 22) Types of compounds using the Bauck naming system: **BI (binary ionic)**, **TI (ternary ionic)**, **OTHER (other ionic)**. Define and give an example of each.
- 23) **Valence**—What is this? How does this relate to dot diagrams?

*** Note *** There will be at least one question pertaining to material in past chapter(s) or unit(s).