

## 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?*
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### Topics to Review:

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

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