

Bauk's CHEM Ch. 6 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
- *balance* and *classify* reactions that are already written out in symbols and properly crisscrossed when needed, such as $H_2 + O_2 \rightarrow H_2O$
- *write, balance* and *classify* reactions written in words only, such as *hydrogen + oxygen → water*
- *complete, balance* and *classify* reactions with no products given, such as *hydrogen + oxygen → _____*
- *net ionic equations* from a double displacement reaction, such as using $HCl(aq) + AgNO_3(aq) \rightarrow HNO_3 + AgCl(s)$
To find the new ionic equation: $Ag^+(aq) + Cl^-(aq) \rightarrow AgCl(s)$

TOPICS TO STUDY:

- 1) Common **acids**: know the names and formulas for the six most common acids: HCl, HNO₃, H₃PO₄, H₂SO₄, H₂CO₃, and HC₂H₃O₂ or CH₃COOH
- 2) **Activity series**: What is it? How is it used? Know how to use it!

ACTIVITY SERIES:

HIGH (will displace others)	→	→	→	→	decreasing activity	→	→	→	→	LOW (will not displace)							
F ₂					Cl ₂					Br ₂							I ₂
Li	K	Ba	Ca	Na	Mg	Al	Zn	Fe	Ni	Sn	Pb	H	Cu	Hg	Ag	Au	

- 3) **Balancing equations**: How is it done? Why should all equations be balanced?
- 4) **Binary molecular compounds**: Be able to write their formulas and/or name them using prefixes. Give two examples for this review.
- 5) **Catalysts**: What are their characteristics? What is their function? Where is their formula written in a reaction?
- 6) **Coefficients**: What are they? What is their function in balancing equations?
- 7) **Combustion**: What is it? What gas must be present for it to occur? What are the two products of complete combustion of hydrocarbons?
- 8) **Net ionic equation**: What is it? Be able to write a net ionic equation from a regular double displacement reaction. Give one example for this review.
- 9) Polyatomic ions: list their names and formulas
- 10) **Products**: Where are they found in a chemical equation?
- 11) **Reactants**: Where are they found in a chemical equation?
- 12) Be able to identify **reaction types**, given examples:
 - **combination** (synthesis) $A + B \rightarrow AB$
 - **decomposition** $AB \rightarrow A + B$
 - **single displacement (single replacement)** $A + BC \rightarrow AC + B$
 - **double displacement (double replacement)** $AB + CD \rightarrow AD + CB$
 - hydrocarbon **combustion**, complete and incompleteFor this review, write and identify an example of each type.
- 13) **Skeleton equation**: what is it?
- 14) **Spectator ions**: What are they?
- 15) **Symbols** used in reactions: What do these mean?: s, l, aq, Δ