

Assignment #2

Name  _____

Gen Chem 1 Section 43

Score _____

- The formation of an anion from an atom would be called
 - Ionization energy
 - Electron affinity
 - Electronegativity
 - Reduction
 - Oxidation
- All of the following are soluble in water EXCEPT:
 - AgCl
 - NH₄Cl
 - LiCl
 - CsCl
 - CuCl₂
- Which of the following statements best describes what happens when a teaspoon of table salt, NaCl, is dissolved in a cup of warm water:
 - The salt undergoes a chemical change by reacting with the water
 - The water molecules surround each ion in the solid NaCl separating the Na ions from the Cl ions
 - The heat from the warm water melts the salt making it a liquid
 - Nothing happens, salt is insoluble in water
- Which of the following statements is (are) true
 - The reaction vessel becomes warmer when an endothermic reaction occurs.
 - An exothermic reaction is characterized by a negative value of ΔH .
 - Heat is evolved when an exothermic reaction occurs.
 - 1 only
 - 2 only
 - 1 and 2 only
 - 2 and 3 only
 - 1, 2, and 3
- Which of the following statements is (are) TRUE?
 - The product of wavelength and frequency of light is a constant.
 - As the energy increases, the frequency of the radiation decreases.
 - As the wavelength of light increases, the frequency increases.
 - 1 only
 - 2 only
 - 3 only
 - 1 and 3 only
 - 2 and 3 only

6. Which of the following electron configurations is NOT possible?

- a. $1s^2 2s^2 2p^3$
- b. $1s^2 2s^2 2p^6$
- c. $1s^2 2s^2 2p^2$
- d. $1s^2 2s^2 2p^6 2d^2$
- e. $1s^2 2s^2 2p^6 3s^1$

7. What products will result from the addition of aqueous copper (II) nitrate and ammonium sulfide?

a. Molecular equation:



b. Full Ionic Equation:



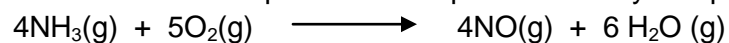
c. Net Ionic Equation:



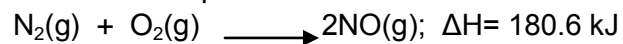
8. What volume of 0.65M HNO_3 (nitric acid) reacts with 73.6 mL of 0.150M Na_2CO_3 (sodium carbonate) in the following reaction?



9. Ammonia will burn in the presence of a platinum catalyst to produce nitric oxide, NO.



What is the enthalpy of reaction at constant pressure? Use the following thermochemical equations:



10. The red spectral line of Lithium occurs at 671nm. Calculate the energy of one photon of this light.



11. Do the following problems out of the Brown Lemay Bursten:

4.40, 4.82, 5.44, 5.72, 6.70

