

Blitz, Units 24-25, Form S

Name _____ Period _____

This is a Take Home Exam. You may use your Notes, PowerPoint, or Text on this exam but NO help from human beings!

You MUST HAND WRITE THIS EXAM!! NO TYPED PAPERS WILL BE ACCEPTED!

EXPLAIN IN COMPLETE SENTENCES AND GIVE EXAMPLES:

1. Define the big K for water, K_w , and explain how it is used to establish the pH scale. Give three examples of pH in action.
2. Define: Acid, Base, Salt, Electrolyte, and Caustic.
3. Write the Net Ionic Equations for the
 - a. dissolving of $Mg_3(PO_4)_2(s)$
 - b. precipitation of $Cr(OH)_3$ from its aqueous ions.
4. Explain Titration, the End Point, and describe two examples.
5. Write the formulas for three Acids and three Bases and name them.
6. Write the K expression for the reaction for the burning of methane, CH_4 . (Burn it means add O_2 and get CO_2 and H_2O).
7. List three properties of Acids and three properties of Bases

***** SHOW METHOD OF SOLUTION FOR ALL PROBLEMS !**

8. Determine if a precipitate will form when the $[Fe^{+2}]$ is 1×10^{-5} M and the $[S^{-2}]$ is 1×10^{-5} M. K_{sp} for FeS is 1×10^{-19} .
9. Find the $[HF]$ when 50ml of 0.5 M KOH are needed to titrate 200ml of HF.
10. Find the solubility of ZnS whose $K_{sp} = 1 \times 10^{-23}$.

When finished, please STAPLE this exam onto your papers and turn in on due date.