

Chapter 4 test review

10 multiple choice questions. These are conceptual and primarily questions that deal with the solubility rules and strong and weak acids and bases.

Three free response questions-

Math- You will be given volume and molarity of two solutions that will be mixed together. You will be asked to balance the reaction, give the net ionic reaction, find the limiting reactant, initial moles of each ion, the mass of the precipitate, and the ending concentration of all the ions. This is just like what we have done in class. Look at the two links of practice problems at the bottom of the web page.

Reactions- In this section you will be asked to balance and answer questions about a reaction that is given you. To solve these correctly you will need to properly write the formula of reactants and products including states. You will need to give the net ionic reaction if the reaction happens in an aqueous solution. Questions about the reactions will be from any of the first three chapters. Make sure to know your solubility rules and strong and weak acids and bases. There are practice problems for this on the second page of this document. Answers will be posted online.

Lab part- For this you will be asked to go to the lab,. In the lab you will be given three unknown clear and colorless solutions and two known solutions. You will be asked to identify the unknowns using only the known solutions. This is very similar to problem 27 in your homework, and the second free response practice problem for chapter 4 in your brown study guide book. Review BOTH of these.

For each of the following reactions, write a balanced equation for the reaction and answer the question about the reaction. Coefficients should be in terms of lowest whole numbers. Assume that solutions are aqueous unless otherwise indicated. Represent substances in solutions as ions if the substances are extensively ionized. Omit formulas for any ions or molecules that are unchanged by the reaction.

Solid zinc is added to a solution of Iron III chloride. Which element is OXIDIZED?

A solution of sodium hydroxide is added to a solution of Lead (II) Nitrate. If one mole of each reactant were added, how many moles of precipitate would be recovered from the solution?

Potassium chlorate is heated in a test tube producing potassium chloride and oxygen. What was the oxidation number on the chlorine atom before AND after the reaction?

Aqueous hydrochloric acid is added solid sodium sulfide. What is/are the spectator ion/s?