**9. Acids & Bases homework problems (Physical Science)**

Name and date submitted (3 pts):

Instructions: Using this form as a template, create space in the document below and write or type your answers. Turn in your completed work as an email attachment.

(25 questions, 100 points possible).

You may use your Book and the Internet.

1. Give the common name for each of these important acids
   1. HCl example: ‘hydrochloric acid’
   2. H2SO4
   3. HNO3
   4. HC2H3O2
   5. HF
2. Now do the same for each of these important bases
   1. NaOH
   2. KOH
   3. Ca(OH)2
   4. NH4OH
3. What ion is characteristic of acids?
   1. Hydroxide
   2. Hydrogen
   3. Hydrolyte
   4. Electrolyte
4. What color does a ‘Lab Rat Supplies’ universal pH-indicating strip (like we have used many times in lab) turn when dipped in acid? (Internet research if you forgot)
   1. Green
   2. Blue
   3. Black
   4. Red
5. What color does a ‘Lab Rat Supplies’ universal pH-indicating strip (like we have used many times in lab) turn when dipped in a base? (Internet research if you forgot)
   1. Green
   2. Blue
   3. Black
   4. Red
6. What kind of acid is in your stomach?
   1. Formic
   2. Hydrochloric
   3. Nitric
   4. Osmotic
7. True/False: “Acids neutralize bases”
8. True/False: “Acids dissolve metals”
9. What are base ions?
   1. Nitrate ions
   2. Hydrogen ions
   3. Chloride ions
   4. Hydroxide ions
10. When you combine a strong acid with a strong base, you get a
    1. Stronger acid
    2. Halogen
    3. Salt
    4. Stronger base
11. What is formed when a hydroxide ion (OH) combines with a hydrogen ion (H)?
    1. A water molecule
    2. A base
    3. An acid
    4. A hydrocarbon
12. What color does phenolphthalein indicator turn when it is added to a basic solution? (Internet research)
    1. Pink
    2. Green
    3. Blue
    4. Clear
13. What is the most essential industrial acid used the world-over?
    1. Hydrochloric
    2. Phosphoric
    3. Nitric
    4. Sulfuric
14. pH is defined as the measurement of the concentration of what ion? (Internet research)
    1. Hydronium
    2. Hydroxide
    3. Base
    4. Acid
15. What makes a green apple taste sour?
    1. The presence of fructose
    2. The presence of an acid
    3. The presence of a base
    4. The presence of a salt
16. What is another name for the base ‘sodium hydroxide’?
    1. Lime
    2. Caustic soda
    3. Household ammonia
    4. Oil of vitriol
17. Which salt is table salt?
    1. Calcium chloride
    2. Sodium chloride
    3. Magnesium chloride
    4. Potassium chloride
18. What do you call the process of an acid and a base canceling each other?
    1. Ionization
    2. Indication
    3. Hydrogenation
    4. Neutralization

Determine which definition best matches each of the following terms:

1. Acids are defined as A. Hydroxide acceptors
2. Bases are defined as B. Proton donors

C. Proton acceptors

D. Salts

Determine which description best matches each of the following tastes:

1. Acids taste A. Sweet
2. Bases taste B. Bitter

C. Sour

D. Salty

Determine which term best matches each of the following descriptions:

1. A pH of 7 means A. Acid
2. A pH of 1 means B. Neutral
3. A pH of 14 means C. Base

D. Can’t tell