

Review - Acids, Bases, and Organics

1.) State the pH value or range of the following.

- (a) a neutral solution (c) an acidic solution a.) b.) c.) c
(b) a basic solution

2.) What is the increase in acidity associated with a **decrease** of one unit on the pH scale?

3.) Describe how you would use litmus paper to determine whether a solution is acidic, basic, or neutral.

4.) a.) How can you identify an acid by looking at its chemical formula?

b.) How can you identify a base by looking at its chemical formula?

5.) State whether each of the following describes acids, bases, or both.

- a.) Sour taste
- b.) Bitter taste
- c.) Slippery feel
- d.) Conducts electricity
- e.) Have a pH greater than 7
- f.) React with metals, causing them to corrode

6.) a.) What two elements are present in all hydrocarbon compounds?

b.) What are three uses for hydrocarbons?

7.) What three elements are present in all alcohols?

8.) a.) How many times more basic is a solution of pH 11 compared to a solution of pH 9?

9.) What is the colour of the indicator after it is added to each of the following solutions?

a.) lemon juice in the presence of indigo carmine.

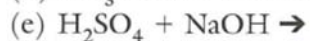
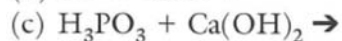
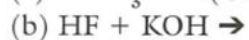
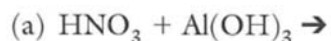
b.) milk in methyl red.

c.) bleach in phenolphthalein.

d.) tap water in phenolphthalein.

e.) egg white in litmus paper.

10.) Complete and balance the following neutralization reactions. When completed write the proper names of each chemical in the reactions.



11.) State whether each of the following is an acid, a base, a salt, or none of these.

a.) $\text{HCl}_{(\text{aq})}$

b.) KOH

c.) $\text{Sr}(\text{OH})_2$

d.) MgCl_2

e.) K_3PO_4

f.) $\text{H}_2\text{SO}_{4(\text{aq})}$

12.) Classify each of the following compounds as organic or inorganic.

a.) CH_3OH

b.) $\text{Mg}(\text{HC}_2\text{O}_4)_2$

c.) SiC

d.) Na_2CO_3

e.) FeBr_3

f.) CH_4

g.) NH_3

h.) CO

