

# CHEMISTRY OF LIFE - ASSIGNMENT 3

## pH Scale (20-21)

1. When water dissociates ( \_\_\_\_\_ ) it releases an \_\_\_\_\_ number of hydrogen ions (  $H^+$  ) and hydroxide ions (  $OH^-$  ).
2. Acidic solutions have a \_\_\_\_\_ or \_\_\_\_\_ taste. Acids are molecules that dissociates in water, releasing \_\_\_\_\_.
3. Bases have a \_\_\_\_\_ taste and feel \_\_\_\_\_ when in water. Bases are molecules that either \_\_\_\_\_ - hydrogen ions ( $H^+$ ) or \_\_\_\_\_ hydroxide ions ( $OH^-$ ).
4. Why would it be foolish to taste a strong acid or base? \_\_\_\_\_
5. A simple laboratory test for acids and bases is called the \_\_\_\_\_ test (pH test).
6. The pH scale goes from \_\_\_\_- \_\_\_\_\_. At what number on the scale are the hydrogen ions and hydroxide ions equal? \_\_\_\_\_
7. Define "buffers" \_\_\_\_\_.
8. What buffer would you use to "coat" an acid stomach? \_\_\_\_\_
9. What would you use to heal a canker inside your mouth? \_\_\_\_\_ Would this substance be an acid or a base? \_\_\_\_\_ Is the canker caused because of too much acid or too much base? \_\_\_\_\_
10. Any pH value above a 7 is a \_\_\_\_\_, any pH value below a 7 is an \_\_\_\_\_.

11. Name 3 substances you have had to eat or drink in the last week that are acids and give the pH value.

Substance	pH value	Substance	pH value

12. Name 1 substance that most people eat weekly that is a base and give the pH value: \_\_\_\_\_-- \_\_\_\_\_ and name 1 substance people use for upset stomach that is a base and give the pH value: \_\_\_\_\_-- \_\_\_\_\_.

13. Name 4 substance in your body that are acidic and give their pH value:

Substance	pH value	Substance	pH value

14. Name 4 substances in you body that are base and give their pH value:

Substance	pH value	Substance	pH value