**Biochemistry Test Review**

Complete this test review to prepare for the Biochemistry Unit assessment. This unit consisted of the Lab: Keep Buffered and Carry On, Lab: Acids, Bases and pH, Biochemistry Vocabulary, Nutrition Lab, Water Article, Chemical Composition of Human Body, Ionic Bonding Lab, Water Properties Lab, Atomic Basics, and notes.

*Answer these questions for credit and turn them in on test day.*

1. What is the number of protons, neutrons and electrons of Neon?
2. Compare ionic bond to covalent bonds.
3. Where do acids and bases exist in the pH scale?
4. What ion do acids produce? What ions do bases produce?
5. What element makes up organic compounds?
6. List and define the four types of organic macromolecules.
7. Draw a Lewis Model and Bohr Model of Oxygen.
8. What type (positive or negative) of ion does Oxygen tend to become?
9. Why is Carbon -12 and Carbon -14 an isotope?
10. How does carbonic acid form in your blood?
11. Explain how a buffer maintains homeostasis in blood and why it is needed.
12. Why is water so important to drink?
13. Describe a hydrogen bond and explain how it allows for cohesion, surface tension and adhesion.
14. Explain four properties of water.
15. Define food.
16. Is Diet Soda a food? Explain.
17. What are enzymes and how do enzymes work?
18. What are the optimal conditions for liver enzymes?

Constructed Response – answer in detail.

1. Draw a model of a water molecule and in the model include at least one property of water (one natural phenomenon of water).
2. Describe the function of three macromolecules that make up food.