2012 FEBRUARY BREAK HOMEWORK ASSIGNMENT PART II-CLASS SB1-30

1. Describe the path that blood takes at it flows through the body. Begin with blood leaving the left ventricle and end with blood entering the right atrium through the superior and inferior vena cavae. Describe all the vessels through which blood flows as it travels from the heart to the body and back.
2. What occurs at the villi of the small intestine? Describe their structure. Explain how their structure aids in more efficient absorption of nutrients.
3. A biologist adds a 10% salt solution to a prepared plant cell slide. Explain how the size of the plants vacuole would change. Account for this difference in size as compared to before the solution was added.
4. What happens to a red blood cell that is placed in a solution that is hypotonic with respect to the outside of the cell? Explain your answer.
5. Name and describe the process by which food is moved from the mouth to the stomach.
6. Identify one macromolecule that is involved in the storage of energy in plants and two that are involved in the storage of energy in animals. Describe how these three molecules differ from one another in structure.
7. Differentiate between passive and active transport. Give an example of each.
8. A cheeseburger passes through the digestive system. Explain what nutrients would be left in each of the digestive tract organs as they are broken down.
9. Identify two functions of the large intestine. Identify and describe one potential consequence of large intestine malfunction.