Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11.3 Kidney

1 Explain the difference between an osmoregulator and an osmoconformer, with 2 example of each.

2. Draw and label a Malpighian tubule system in an insect digestive tract. Explain how it works.

3. List 3 examples of nitrogenous waste created by animals. Give an example of an animal that creates each one. List an advantage and disadvantage of each one.

 Explain how type of waste can be used to trace evolutionary relationships.

4. Explain how and why the contents of the renal artery and renal vein differ.

5. Describe what ultrafiltration is using all of the following terms: Bowman’s capsule, glomerulus, fenestrations, basement membrane, afferent arteriole, efferent arteriole, and nephron.

6. Describe how, where and why reabsorption occurs.

7. Describe what happens in the loop of Henle. What conditions must be maintained for this to happen?

8. Why would an animal have shorter or longer loops of Henle?

9. What does ADH do?

10. List 3 symptoms of dehydration and 3 for overhydration.

11. Explain what dialysis is and the options for kidney failure.

12. What can be found in urine tests, and why?