

Name \_\_\_\_\_

Period \_\_\_\_\_

Ms. Foglia

Date \_\_\_\_\_

**AP: CHAPTER 44: REGULATION THE INTERNAL ENVIRONMENT**

1. Define homeostasis.

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**THERMOREGULATION**

2. How do regulators moderate internal conditions?

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3. How do conformers adapt to changing conditions?

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4. List four processes that account for heat exchange.

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5. How does circulation aid in heat exchange?

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6. How does countercurrent heat exchanger conserve heat?

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7. List some examples of how an ectotherm maintains higher than expected body temperature.

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8. Draw a diagram and describe how the feedback mechanism that regulates your temperature works.


**OSMOREGULATION**

9. How do seagulls deal with the high salt in their diet?

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\_\_\_\_\_

10. Describe the influence of habitat on the type of nitrogen waste produced by animals.

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

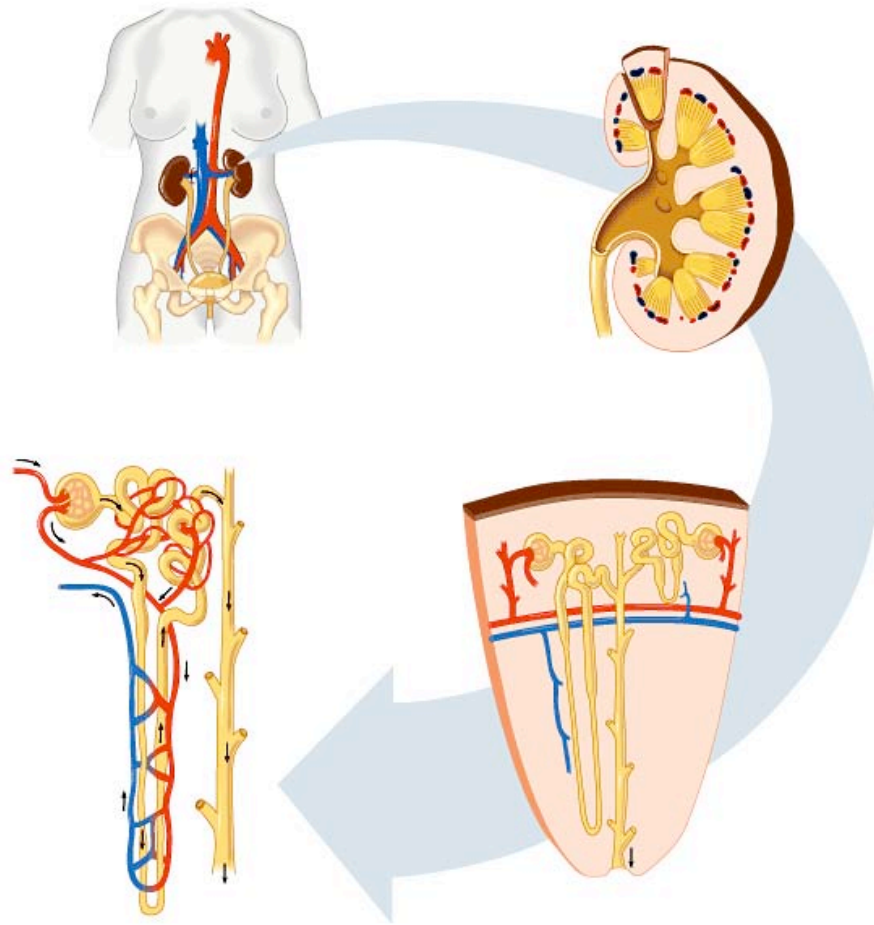
11. Define each of the key functions of the excretory process.

- a. Filtration \_\_\_\_\_
- b. Reabsorption \_\_\_\_\_
- c. Secretion \_\_\_\_\_
- d. Excretion \_\_\_\_\_

12. What is the relationship between the kidney and circulatory system?

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\_\_\_\_\_  
\_\_\_\_\_

13. Label the diagram of the human urinary system.



14. Describe the three feedback mechanisms that regulate the kidney?

a. ADH \_\_\_\_\_

\_\_\_\_\_

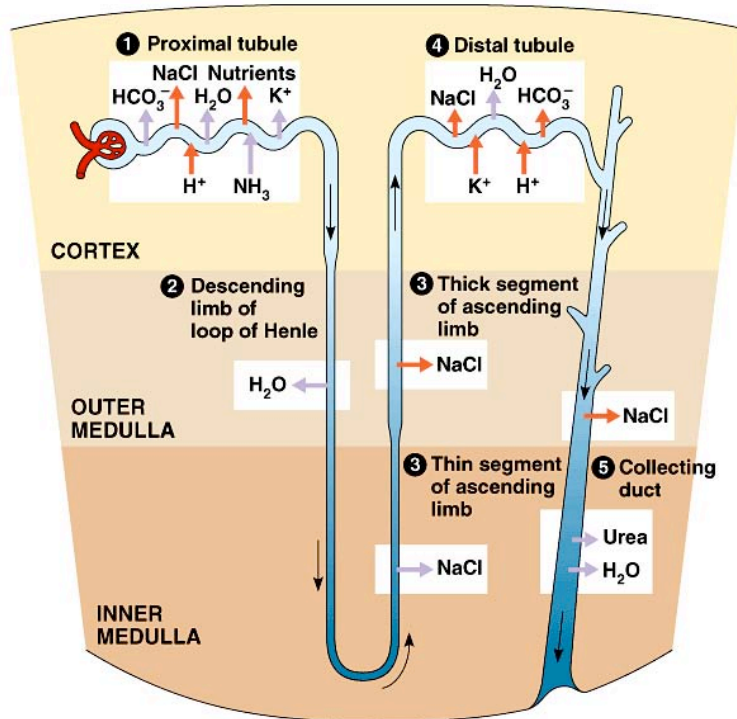
b. RAAS \_\_\_\_\_

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c. NAF \_\_\_\_\_

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15. Using the diagram of the nephron, note the major exchanges that occur along the various sections. Indicate the osmolarity (salt conditions) in each region.



16. What happens to the filtrate concentration of water as it descends the tubules?

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17. What happens to the filtrate concentration of NaCl as it ascends the tubules?

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18. List other organs that aid in excretion.

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