

## Section 38–3 The Excretory System (pages 985–989)



### Key Concepts

- What are the functions of the kidneys?
- How is blood filtered?

### Functions of the Excretory System (page 985)

1. The process by which metabolic wastes are eliminated is called \_\_\_\_\_.
2. List four organs that are used for excretion.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_
3. List three ways that the kidneys help maintain homeostasis.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_

### The Kidneys (pages 986–988)

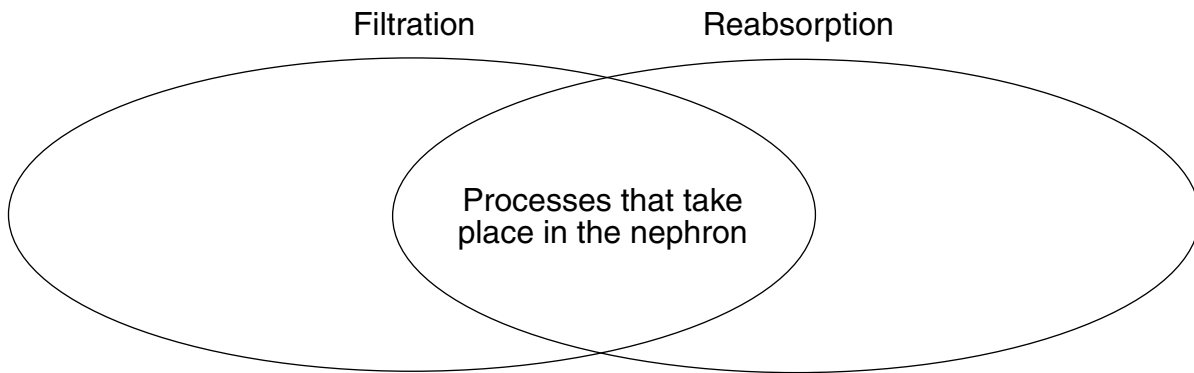
4. Circle the letter of each sentence that is true about the kidneys.
  - a. They are the main organs of the excretory system.
  - b. They are located on either side of the spinal column.
  - c. They remove excess water and waste products from the urine.
  - d. They receive blood through the renal vein.

Match each term with its definition.

Term	Definition
_____ 5. ureter	a. Saclike organ where urine is stored
_____ 6. urinary bladder	b. Functional unit of the kidney
_____ 7. renal medulla	c. Outer part of the kidney
_____ 8. renal cortex	d. Tube that carries urine from the kidney to the urinary bladder
_____ 9. nephron	e. Inner part of the kidney

10. Is the following sentence true or false? Nephrons are located in the renal medulla.  
\_\_\_\_\_
11. What ends up in the collecting duct? \_\_\_\_\_
12. List the two processes involved in blood purification.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
13. The small network of capillaries in the upper end of the nephron is referred to as the \_\_\_\_\_.
14. The glomerulus is enclosed by a cup-shaped structure called the \_\_\_\_\_.

15. Complete the Venn diagram.



16. The materials that are filtered from the blood are collectively called the \_\_\_\_\_.

17. List six materials that are filtered from blood.

- |          |          |          |
|----------|----------|----------|
| a. _____ | c. _____ | e. _____ |
| b. _____ | d. _____ | f. _____ |

18. Which substances are removed from the filtrate and reabsorbed by the capillaries?

\_\_\_\_\_

\_\_\_\_\_

19. What happens during the process of secretion? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

20. Circle the letter of each sentence that is true about urine.

- a. It is the material that remains after reabsorption.
- b. It contains only urea and water.
- c. It is concentrated in the loop of Henle.
- d. It is released from the body through the urethra.

### **Control of Kidney Function (page 988)**

21. How are the activities of the kidneys controlled? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

22. Is the following sentence true or false? As the amount of water in the blood increases, the rate of water reabsorption in the kidneys increases. \_\_\_\_\_

### **Homeostasis by Machine (pages 988–989)**

23. Is the following sentence true or false? Humans cannot survive with only one kidney.

\_\_\_\_\_

24. The removal of wastes from blood using a machine is called \_\_\_\_\_.