

Answer Key

Excretion Review Questions

For questions #1-8, choose one of the following: liver, lungs, skin, or kidneys.

1. Excretes salts from its surface *skin*
2. Responsible for excreting carbon dioxide *Lungs*
3. Has functional units called nephrons *Kidneys*
4. Produces both urea & bile *Liver*
5. Organ that filters urea from blood & reabsorbs glucose and amino acids *Kidneys*
6. Removes old red blood cells from the circulatory system *Liver*
7. Maintains homeostasis by releasing body heat, water, & other wastes *skin*
8. Adds or removes glucose from the blood as necessary *Liver*

9. Which is the correct pathway for the elimination of urine?
 - a) urethra, ureter, bladder, kidney
 - b) kidneys, urethra, bladder, ureter
 - c) bladder, ureters, kidney, urethra
 - d) kidneys, ureters, bladder, urethra**

10. In humans, for carbon dioxide to be excreted, it must pass from the blood into:
 - a) nephrons
 - b) alveoli**
 - c) sweat glands
 - d) the liver

11. A blockage in a ureter would interfere with:
 - a) urine entering the kidney
 - b) urine entering the bladder**
 - c) urine leaving the body
 - d) urea entering the kidney

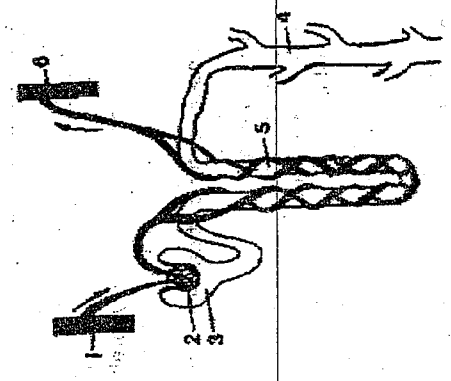
12. Which is NOT a metabolic waste in humans?
 - a) carbon dioxide
 - b) oxygen**
 - c) salt
 - d) urea
 - e) water

13. Nitrogenous wastes are the result of metabolism involving:
 - a) lipids
 - b) carbohydrates
 - c) inorganic compounds
 - d) proteins**

14. In addition to water, the principal components of urine are:
 - a) amino acids & fatty acids
 - b) urea & salts**
 - c) ammonia & bile
 - d) hydrochloric acid & urea

Directions: Use the diagram to answer questions #15-23.

15. The structural unit shown in the diagram is called:
 - a) an alveolus
 - b) a nephron**
 - c) a sweat gland
 - d) a ureter



16. Into which structure does the filtrate first pass?
 - a) 1
 - b) 2
 - c) 3**
 - d) 5

17. In which area are materials needed by the body reabsorbed?
 - a) 2
 - b) 3
 - c) 4
 - d) 5**

18. In which area is urine collected?
 - a) 2
 - b) 3
 - c) 4**
 - d) 5

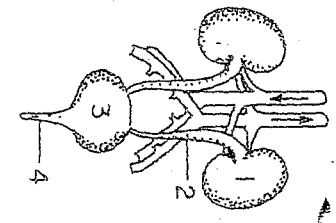
19. Which of the following does not normally enter structure 3?
 - a) salts
 - b) red blood cells**
 - c) urea
 - d) water
 - e) glucose

20. Which structure is the glomerulus? *2*
21. Which structure is the loop of Henle? *5*
22. Which structure is the collecting tubule? *4*
23. Which structure is the Bowman's Capsule? *3*

Questions

1 In the diagram, which structure is the principal site of the filtration and reabsorption processes that occur during the formation of urine?

- 1) 1
- 2) 2
- 3) 3
- 4) 4



2 An obstruction in a ureter would interfere with

- 1) urine entering the kidney
- 2) lymph entering the kidney
- 3) urine entering the urinary bladder
- 4) bile entering the urinary bladder

3 The reabsorption of materials into the capillaries surrounding the tubules of nephrons is an example of a

- 1) homeostatic mechanism
- 2) peristaltic movement
- 3) hydrolytic reaction
- 4) protein synthesis

4 Which excretory organ functions in the breakdown of red blood cells and the production of urea?

- 1) liver
- 2) stomach
- 3) pancreas
- 4) lung

5 In humans, carbon dioxide that is excreted passes from the blood directly into the

- 1) liver
- 2) alveoli
- 3) trachea
- 4) kidneys

6 Which is the correct pathway for the elimination of urine from the body?

- 1) urethra → bladder → ureters → kidneys
- 2) kidneys → bladder → urethra → ureters
- 3) kidneys → ureters → bladder → urethra
- 4) kidneys → urethra → ureters → bladder

For each function in questions 7 through 10, select the organ, chosen from the list below, which is most closely associated with the function.

- 7) Kidney 2) Lung 3) Liver 4) Skin
- 8) Removal of carbon dioxide from the blood 2
- 9) Storage of glycogen 3
- 10) Production of urea 4
- 11) Maintaining homeostasis by removing body heat, water, and other wastes 4

Unit III — Hum

In the human as of the nervous systems of human.

- Similarities in neurotransmit
- Both play a m
- Differences in
- Nerve respons
- Nerve respons

Nervous S

- Nervous System
- Sensory - Sen
- Motor - Effect
- Interneurons
- Nerves - Input
- Malfunctions
- Cerebral Pals
- Menigitis - {

Function

neurons. The nervous system consists of three types of neurons: sensory neurons, interneurons, and motor neurons. Sensory neurons receive information from receptors in the body and spinal cord and carry it to the brain. Interneurons connect sensory neurons to motor neurons. Motor neurons carry signals from the brain and spinal cord to muscles and glands, causing them to contract or secrete. The nervous system is essential for all life functions, including movement, thought, and emotion.

As urine is excreted, muscle contractions of the urinary bladder will cause the urine to pass into the

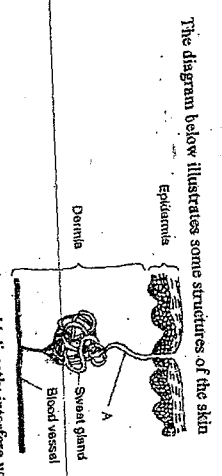
- 1) ureter
- 2) glomerulus
- 3) urethra
- 4) Bowman's capsule

In humans, the immediate result of a blockage in one ureter would be to

- 1) limit the ability to store urine
- 2) prevent filtration of the blood
- 3) stop the release of urine from the body
- 4) decrease the amount of urine entering the bladder

The correct pathway for urine to flow out of the human body is

- 1) bladder → ureter → kidney → urethra
- 2) kidney → ureter → bladder → urethra
- 3) urethra → bladder → kidney → ureter
- 4) kidney → urethra → bladder → ureter



A substance that blocks structure A would directly interfere with

- 1) cellular respiration
- 2) dehydration synthesis
- 3) storage of urea
- 4) temperature regulation

Any disruptions in a body system may result in a corresponding imbalance in homeostasis. Using one or more complete statements name a disorder of the respiratory system and describe the imbalance caused by the disorder.

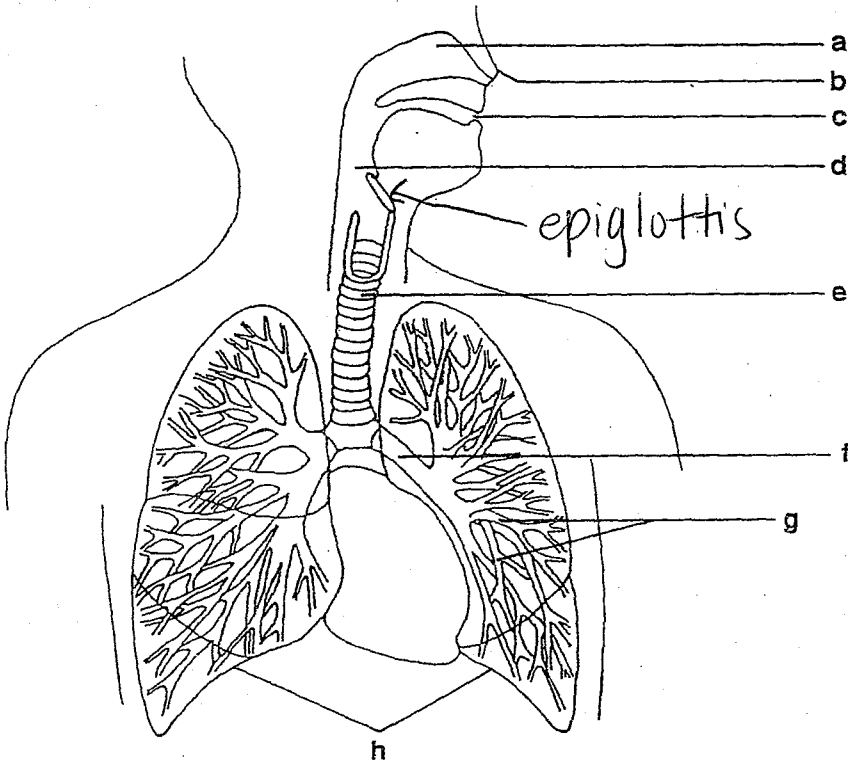
Asthma - constriction of bronchiole tubes, leads to wheezing and difficulty breathing.

Chapter 23 Respiration and Excretion

Section Review 23-1

The Respiratory System

Part A: Label each part of the respiratory system on the lines provided.



- a. nasal cavity
- b. nose
- c. mouth
- d. pharynx (throat)
- e. trachea
- f. bronchi
- g. bronchioles
- h. lungs

Part B: Complete the following sentences by writing the correct letter from the diagram of the respiratory system in the space provided.

1. The a is a hollow opening between the nose and throat.
2. The larynx is found at the top of the e.
3. Alveoli are found in the h.
4. Air usually enters the respiratory system through the b or c.
5. The g are small tubes whose walls are made up only of smooth muscle.
6. The c is a pathway for both food and air.
7. Each f extends into a lung.
8. Gas exchange takes place in the h.
9. Air moving through the b is warmed, moistened, and filtered.
10. The epiglottis is located at the place where the esophagus and e meet.

Part C: Match the terms with the descriptions. Write the term in the space provided.

cilia nostrils larynx epiglottis mucus

mucus

1. Keeps respiratory tissues from drying out

epiglottis

2. Covers the trachea when you swallow

cilia

3. Hairlike structures

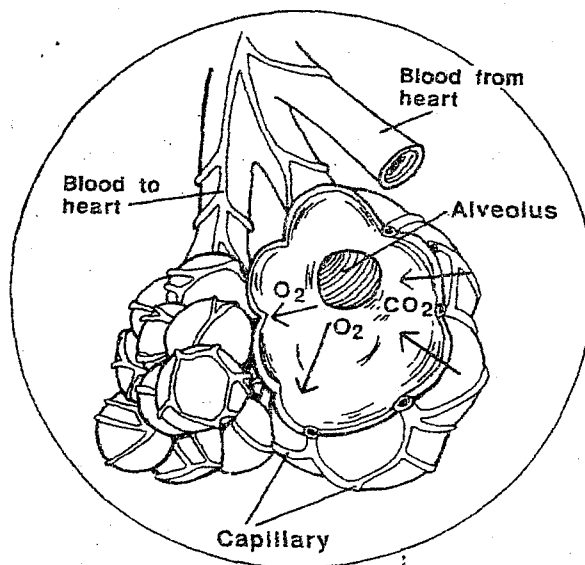
nostrils

4. Openings used to take in air through the nose

larynx

5. Contains the vocal cords

Part D: Study the diagram. Then, answer the questions in the space provided.



1. What does the diagram illustrate? alveoli / gas exchange
2. Between what structures are gases exchanged? alveoli and capillaries
3. How many cells thick are the walls of the alveoli? 1
4. How many cells thick are the walls of capillaries? 1
5. What two gases are exchanged in the lungs? O₂ & CO₂
6. Does air entering the alveoli have a high level or a low level of oxygen? high
7. Does air entering the alveoli have a high level or a low level of carbon dioxide? low
8. Does blood coming from the heart have a high level or a low level of oxygen? Low
9. Does blood coming from the heart have a high level or a low level of carbon dioxide? High
10. By what process does the exchange of oxygen and carbon dioxide take place? Diffusion