

A Guided Study of the Digestive System

(Reference text and photos for answers)

1. Name the two types of digestion. (See pages 4-5)
 - a) Mechanical and Chemical
 - b) Mechanical and Autonomic
 - c) Parasympathetic and Sympathetic
 - d) Upper Digestion and Lower Digestion
2. The digestive tract is also known as what? (See page 3)
 - a) Esophagus
 - b) Alimentary Canal
 - c) Small and Large Intestines
 - d) All of the above
3. Segmentation is localized circular muscular contractions. True/False (See page 5)
4. What process breaks down food to access its nutrients? (See page 5)
 - a) Chemical Digestion
 - b) Mechanical Digestion
 - c) Sympathetic Digestion
 - d) Parasympathetic Digestion
5. Defecation is the process of eliminating undigested food from the body in the form of feces. True/False (See page 6)
6. These organs are not part of the digestive tract but help in digestion by producing a variety of secretions that are needed for digestion. An example would be the gallbladder. (See page 3)
 - a) Additional Organs
 - b) Supplemental Organs
 - c) Accessory Organs
 - d) Complementary Organs
7. There are five primary organs of the alimentary canal. True/False (See page 3)

Answer: False, there are seven. Mouth, pharynx, esophagus, stomach, small intestine, large intestine, anus
8. The tongue detects taste, such as sweet, salty, bitter, sour, savory, and fat. True/False (See page 6)

9. The Uvula secretes saliva enzymes into the mouth to moisten food for easier swallowing and initiates chemical breakdown of food? True/False (See page 8)

Answer: False, it is the Salivary Glands

10. What are the names of the three extrinsic salivary glands? (See page 8)

- a) Maxillary, Mandibular, and Ophthalmic Glands
- b) Submandibular, Sublingual, and Parietal Glands
- c) Parotid, Submandibular, and Sublingual Glands
- d) Submandibular, Subsurface, and Parotid Glands

11. Name the long muscle, about 25-30 cm long, that transports food to the stomach. (See page 9)

- a) Ureter
- b) Psoas
- c) Esophagus
- d) Phalangeal

12. Name the sphincter located between the esophagus and stomach. (See page 10)

- a) Cardiac Sphincter
- b) Pyloric Sphincter
- c) Ileocecal Valve
- d) Sphincter of Oddi

13. Chyme is acid soup consisting of churned food that has been exposed to digestive juices. True/False (See page 5)

14. Name the valve located between the stomach and duodenum. (See page 10)

- a) Cardiac Sphincter
- b) Pyloric Sphincter
- c) Ileocecal Valve
- d) Sphincter of Oddi

15. What organ produces bile and is also considered the largest gland? (See page 11)

- a) Gallbladder
- b) Pancreas
- c) Stomach
- d) Liver

16. Bile salts emulsify lipids, aiding their digestion and absorption. True/False (See page 11)

17. What organ stores bile? (See page 12)
- a) Gallbladder
 - b) Pancreas
 - c) Stomach
 - d) Liver
18. What accessory organ of the digestive system is comprised of both exocrine and endocrine cells? (See page 12)
- a) Gallbladder
 - b) Pancreas
 - c) Stomach
 - d) Liver
19. The pancreas is a source of digestive enzymes and bicarbonate, which are released into ducts for digestion. True/False (See page 12)
20. The small intestine is approximately how many feet long? (See page 13)
- a) 2 ft.
 - b) 10 ft.
 - c) 20 ft.
 - d) 40 ft.
21. Name the three sections of the small intestines. (See page 13)
- a) Duodenum, Jejunum, and Ilium
 - b) Duodenum, Jejunum, and Ileum
 - c) Ascending Colon, Transverse Colon, and Descending Colon
 - d) Cecum, Sigmoid, Ileum
22. What section of the small intestine receives bile and pancreatic juice to help calm the acids from the stomach? (See pages 12-13)
- a) Jejunum
 - b) Cecum
 - c) Duodenum
 - d) Ileum
23. What section of the small intestine is responsible for most of the absorption? (See page 13)
- a) Jejunum
 - b) Cecum
 - c) Duodenum
 - d) Ileum

24. In what section of the small intestines is vitamin B12 absorbed? (See page 13)
- a) Jejunum
 - b) Ilium
 - c) Duodenum
 - d) **Ileum**
25. What are the hair-like projections in the walls of the small intestine that help absorb food called? (See pages 13-14)
- a) Silica
 - b) Mucosa
 - c) **Villi**
 - d) Cecum
26. This type of digestion occurs first by the tongue and teeth in the oral cavity and then by swirling and mixing motions of the digestive tract. (See page 5)
- a) **Mechanical Digestion**
 - b) Chemical Digestion
 - c) Upper Digestion
 - d) Sympathetic Digestion
27. What type of digestion causes food to break down into nutrients through digestive enzymes into simple molecules that cells can use? (See page 5)
- a) Mechanical Digestion
 - b) **Chemical Digestion**
 - c) Lower Digestion
 - d) Sympathetic Digestion
28. List the sections of the large intestine. (See pages 14-15)
- a) Duodenum, Jejunum, and Ilium
 - b) Duodenum, Jejunum, and Ileum
 - c) Ascending Colon, Transverse Colon, and Descending Colon
 - d) **Cecum, Colon, Rectum, and Anal Canal**
29. The rectum is the opening through which the body passes feces, below the final segment of the colon, and that terminates the gastrointestinal system. True/**False** (See page 15)
- Answer: False, it is the Anus**

A Guided Study of the Excretory System (Reference text and photos for answers)

1. What is the function of the excretory system? (See page 24)
 - a) To assist the digestive system in getting nutrients to the body
 - b) To act as a the body's thermostat
 - c) To remove harmful waste from the body
 - d) To act as a barrier so to pathogens can not enter the body
2. The skin's role in the excretory system is to control body temperature. True/False (See page 25)
3. Which parts of the body are included in the excretory system? (See pages 24-25)
 - a) Skin, Lungs, Liver, and Urinary System
 - b) Heart, Lungs, Liver, and Digestive System
 - c) Kidneys, Stomach, Liver, Pancreas
 - d) Kidneys, Ureter, Bladder, Urethra
4. If there is an excess of proteins in the body, they will be sent to the liver to break them down. True/False (See page 25).
5. What is the main excretion from the lungs? (See page 25).
 - a) Carbon Dioxide and Water Vapor
 - b) Oxygen and Carbon Dioxide
 - c) Oxygen and Water Vapor
 - d) Carbon Dioxide and Mucus
6. What is the name of the two bean-shaped excretory organs that filter wastes (especially urea) from the blood? (See pages 25-26)
 - a) Ureters
 - b) Kidneys
 - c) Lungs
 - d) Ovaries
7. Kidneys transport urine, cleans blood, and control water balance. True/False (See pages 27)
8. The Liver controls the water salt balance through blood filtration. True/False (See pages 27-28)

Answer: False, it is the kidneys

9. What are the functional units of the kidney? (See page 27)

- a) Renal Cortex
- b) Medulla
- c) **Nephrons**
- d) Ureters

10. Urea is poisonous waste from the breakdown of excess proteins in the pancreas.
True/False (See page 27)

Answer: False, it is the liver, not the pancreas

11. Name the sack-like muscular organ that stores urine until it is eliminated from the body.
(See page 29)

- a) Kidneys
- b) Liver
- c) Gallbladder
- d) **Bladder**

12. The kidneys produce urine. **True**/False (See page 27)

13. Urine contains water, urea, and other waste materials. **True**/False (See page 27)

14. What is the narrow tube that carries urine from one of the kidneys to the urinary bladder?
(See pages 28-29)

- a) Urethra
- b) **Ureter**
- c) Fallopian Tube
- d) Bowman's Capsule

15. The ureter is the small tube through which urine flows from the body. True/**False** (See pages 30-31)

Answer: False, in is the Urethra

16. Food and drink that are digested pass through the organs of the excretory system, nutrients are absorbed and used in the body and wastes are excreted. **True**/False