

IB Biology: Introduction to Digestion**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

- _____ 1. A car is to gasoline as your body is to
a. your stomach.
b. your kidneys.
c. food.
d. enzymes.
- _____ 2. The energy to perform actions, as well as the materials from which body cells and tissues are made, comes from
a. cellulose.
b. oxygen.
c. food.
d. blood.
- _____ 3. The energy available in foods can be measured by
a. first determining which nutrients the body needs.
b. burning the foods.
c. tracing chemical pathways.
d. all of the above.
- _____ 4. Inorganic molecules that perform vital functions in the body are called
a. lipids.
b. proteins.
c. vitamins.
d. minerals.

Modified True/False

Indicate whether the statement is true or false. If false, change the identified word or phrase to make the statement true.

- _____ 5. In a label displaying the "Calorie" content of food, the unit is actually the kilocalorie.

Completion

Complete each statement.

6. The science of _____ is the study of food and its effects on the body.
7. The pancreas produces _____, a base that neutralizes stomach acid so that the enzymes can be effective.
8. Gastric glands produce mucus, hydrochloric acid, and the enzyme _____.

Name: _____

Other

USING SCIENCE SKILLS

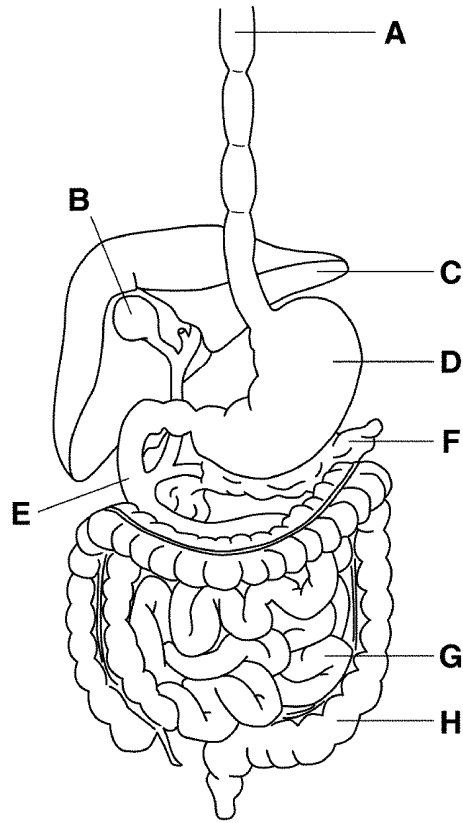


Figure 38-3

12. **Interpreting Graphics** Which structure shown in Figure 38-3 is the esophagus?
13. **Interpreting Graphics** Which structure shown in Figure 38-3 is the stomach?
14. **Interpreting Graphics** Which structure shown in Figure 38-3 produces bile? What is the name of this structure?
15. **Interpreting Graphics** Hormones that regulate blood sugar are produced in which structure shown in Figure 38-3? What is the name of this structure?
16. **Interpreting Graphics** Which structure shown in Figure 38-3 contains villi, which aid in absorbing nutrients? What is the name of this structure?

IB Biology: Introduction to Digestion Answer Section

MULTIPLE CHOICE

1. ANS: C
2. ANS: C
3. ANS: B
4. ANS: D

MODIFIED TRUE/FALSE

5. ANS: T

COMPLETION

6. ANS: nutrition
7. ANS: sodium bicarbonate
8. ANS: pepsin

SHORT ANSWER

9. ANS:
Accept any two of the following: protect body organs; insulate the body; produce cell membranes, myelin sheaths, and certain hormones; help body absorb fat-soluble vitamins.
10. ANS:
A calorie is the amount of heat needed to raise the temperature of one gram of water by one Celsius degree. A Calorie is equal to 1000 calories, or 1 kilocalorie (kcal).
11. ANS:
water, carbohydrates, fats, proteins, vitamins, and minerals

OTHER

12. ANS:
A
13. ANS:
D
14. ANS:
C, liver
15. ANS:
F, pancreas
16. ANS:
G, small intestine

ESSAY

17. ANS:
Although the mental activity requires very few calories, the author must carry out all the body's essential processes, such as respiration and circulation. Energy is also required for activities such as sitting and typing.
18. ANS:
Both vitamins and minerals are kinds of nutrients the body needs in small amounts. Vitamins are organic molecules that help regulate body processes, often working with enzymes. Most vitamins are obtained from food. Minerals are inorganic nutrients that, like vitamins, help perform a variety of functions and are needed only in small amounts. Some of these functions include blood clotting, acid-base balance, and activation of enzymes.
19. ANS:
The body loses water through sweat. Water in the form of vapor is also lost with every breath exhaled. More water is lost in the urine.
20. ANS:
The digestive system includes the mouth, pharynx, esophagus, stomach, small intestine, and large intestine. Several major accessory structures, including the salivary glands, the pancreas, the liver, and the gallbladder add secretions to the digestive system.