

# Life Science Diagnostic Test

## PART A Multiple Choice

Write the letter of the term or phrase that best completes the statement or answers the question.

- \_\_\_\_\_ 1. Every organism is made up of one or more  
a. viruses. b. cells. c. bacteria. d. biomes.
- \_\_\_\_\_ 2. Plants give off  
a. oxygen. b. carbon dioxide. c. hydrogen. d. helium.
- \_\_\_\_\_ 3. The place in which an organism lives is its  
a. habitat. b. population. c. species. d. niche.
- \_\_\_\_\_ 4. Most of the human skeletal system is made up of  
a. ligaments. b. cartilage. c. bones. d. joints.
- \_\_\_\_\_ 5. The heart is part of the  
a. digestive system. b. circulatory system. c. nervous system. d. skeletal system.
- \_\_\_\_\_ 6. Information collected in an experiment is called  
a. data. b. graph. c. conclusion. d. response.
- \_\_\_\_\_ 7. Plants are able to carry out photosynthesis using energy from  
a. their roots. b. the Sun. c. water. d. soil.
- \_\_\_\_\_ 8. What do organisms obtain in food for growth and energy?  
a. cells b. DNA c. oxygen d. nutrients
- \_\_\_\_\_ 9. A tool used to see very small things is a  
a. computer. b. X-ray. c. microscope. d. telescope.
- \_\_\_\_\_ 10. The human body system that protects the body from diseases is the  
a. immune system. b. digestive system. c. nervous system. d. circulatory system.
- \_\_\_\_\_ 11. Reptiles, fish, and amphibians are all  
a. warm-blooded vertebrates. b. cold-blooded vertebrates.  
c. warm-blooded invertebrates. d. cold-blooded invertebrates.
- \_\_\_\_\_ 12. Birds, reptiles, fish, and mammals belong to the kingdom  
a. Fungi b. Protista c. Animalia d. Plantae
- \_\_\_\_\_ 13. What do fish use to breathe?  
a. scales b. lungs c. blood d. gills
- \_\_\_\_\_ 14. The basic building blocks of all living things are  
a. tissues. b. cells. c. organ systems. d. muscles.
- \_\_\_\_\_ 15. The blood vessels that carry blood *back* to the heart are  
a. veins. b. capillaries. c. arteries. d. valves.
- \_\_\_\_\_ 16. Which of the following organisms can cause infections in humans?  
a. bacteria b. viruses c. fungi d. bacteria, viruses, and fungi

## Diagnostic Test *(continued)*

### PART A Multiple Choice *(continued)*

- \_\_\_\_\_ 17. Which of the following is an example of a multicellular organism?  
 a. a bacterium    b. a paramecium    c. an amoeba    d. a mushroom
- \_\_\_\_\_ 18. In order for an organism to survive, it needs food, water,  
 a. air, and sunlight.    b. air, and shelter.  
 c. sunlight, and shelter.    d. air, shelter, and sunlight.
- \_\_\_\_\_ 19. An earthworm is classified as an invertebrate because it  
 a. has a backbone.    b. is segmented.    c. has no backbone.    d. has a small brain.
- \_\_\_\_\_ 20. An instrument used to measure temperature is a  
 a. a barometer.    b. an anemometer.    c. a thermometer.    d. a meter stick.

### PART B Fill In

Complete each sentence with a term from the box.

|               |          |            |             |         |
|---------------|----------|------------|-------------|---------|
| brain         | graphs   | classify   | fossils     | inherit |
| invertebrates | kingdoms | life cycle | respiratory | soil    |

- To arrange plants into categories based on their similarities and differences is to \_\_\_\_\_ them.
- Sponges, worms, and arthropods are all \_\_\_\_\_.
- Scientists study \_\_\_\_\_ to learn about how organisms have changed over time.
- Organisms \_\_\_\_\_ some of their characteristics from their parents.
- The organ system that helps people breathe is the \_\_\_\_\_ system.
- Every organism belongs to one of the six \_\_\_\_\_.
- The \_\_\_\_\_ is the control center of the body.
- Infancy and adolescence are two stages in the human \_\_\_\_\_.
- Most plants need sunlight, water, and \_\_\_\_\_ to grow.
- Scientists often display data from their experiments using \_\_\_\_\_.

### PART C True/False

Write *true* if the statement is true. If the statement is false, change the underlined term to make the statement true.

- \_\_\_\_\_ 1. The scientific method often starts with a question.
- \_\_\_\_\_ 2. Organisms are not able to reproduce themselves.
- \_\_\_\_\_ 3. Cells are the basic building blocks of all living things.
- \_\_\_\_\_ 4. Plants and animal cells are the same.
- \_\_\_\_\_ 5. The genetic material found in living things is called GNA.

## Diagnostic Test *(continued)*

### PART D Matching

Match each term in **Column B** with its description in **Column A**. Write the letter of the correct term in the space provided.

#### Column A

- \_\_\_\_\_ 1. the study of how living things interact with their environments
- \_\_\_\_\_ 2. way in which plants make their own food
- \_\_\_\_\_ 3. group of organisms that share the same characteristics
- \_\_\_\_\_ 4. shows which organisms other organisms eat
- \_\_\_\_\_ 5. eyes, ears, nose, tongue, and skin
- \_\_\_\_\_ 6. helps a living organism survive in its environment
- \_\_\_\_\_ 7. species in danger of becoming extinct
- \_\_\_\_\_ 8. animal that does not have a backbone
- \_\_\_\_\_ 9. the breakdown of food into forms the body can use
- \_\_\_\_\_ 10. the only animals that make milk to feed their young

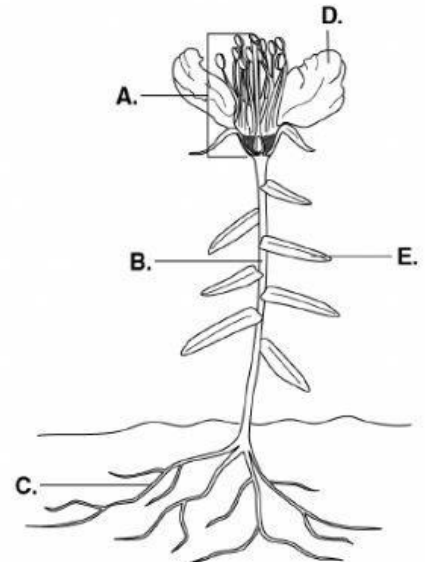
#### Column B

- a. invertebrate
- b. adaptation
- c. ecology
- d. mammals
- e. digestion
- f. sense organs
- g. food chain
- h. species
- i. photosynthesis
- j. endangered

### PART E Interpreting Diagrams

Use the labeled parts of the diagram to answer the following questions

1. Which part of the plant makes pollen and seeds? \_\_\_\_\_
2. The seed-making parts are protected by which part?  
\_\_\_\_\_
3. Which part of the plant is used for support? \_\_\_\_\_
4. Which part of the plant takes in water and minerals?  
\_\_\_\_\_
5. In which part of the plant does photosynthesis primarily take place? \_\_\_\_\_
6. Is this plant more like a cherry tree or a pine tree? Explain.  
\_\_\_\_\_  
\_\_\_\_\_



**Diagnostic Test** *(continued)***PART F Written Response**

Answer the following questions in complete sentences.

1. **COMPARE:** What are some similarities and differences between plants and animals? Give examples of each in your explanation. \_\_\_\_\_

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2. **HYPOTHESIZE:** Some human activities change environments in ways that harm both people and other organisms. Describe one example of this kind of activity. \_\_\_\_\_

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3. **ANALYZE:** In the table below, match each animal to the habitat in which it lives by drawing a line from each animal to the correct habitat. Then, in the spaces provided, describe two ways in which each animal is well suited to live in its habitat.

| Animal     | Habitat        |
|------------|----------------|
| Fish       | Ice cap        |
| Hawk       | Lake           |
| Polar bear | Tree tops, air |

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4. **EXPLAIN:** A system is a group of parts that work together. Explain how the human body is a system. \_\_\_\_\_

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Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## Diagnostic Test *(continued)*

### PART F Written Response *(continued)*

5. **DESCRIBE:** How do scientists find answers to questions? Be sure to include some methods and tools they use. \_\_\_\_\_

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