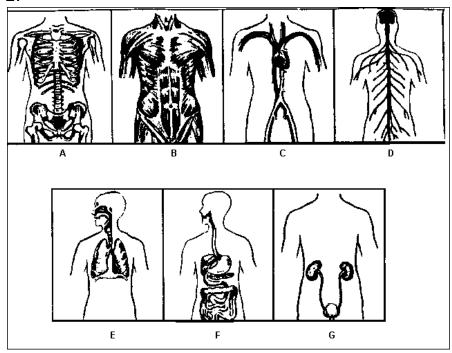
- 1. A change in the external or internal environment of an organism is known as
  - A. a response
  - B. an impulse
  - C. a synapse
  - D. a stimulus

2.

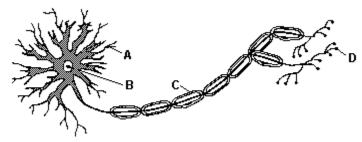


The diagrams show various organ systems. Diseases that cause numbness and paralysis interfere most directly with the normal functioning of

- A. system *E*
- B. system *G*
- C. system *A*
- D. system *D*
- **3.** When leg muscles respond to a stimulus by moving the foot, the response depends most directly on the functioning of
  - A. bronchioles
  - B. nephrons
  - C. capillaries
  - D. nerves

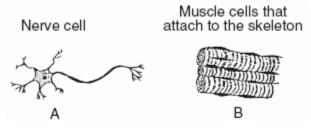
- **4.** Increased perspiration, a higher body temperature, and a rapidly beating heart are all possible responses to a stressful situation. These body responses are most likely a direct result of the interaction of the
  - A. digestive and endocrine systems
  - B. digestive and respiratory systems
  - C. nervous and hormonal systems
  - D. nervous and reproductive systems

5.



The diagram represents the functional unit of a nervous system. Which structure secretes a neurotransmitter?

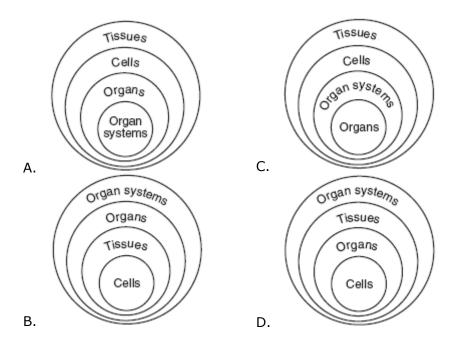
- A. structure A
- B. structure B
- C. structure C
- D. structure *D*
- 6. Nerve cells are essential to an animal because they directly provide
  - A. communication between cells
  - B. transport of nutrients to various organs
  - C. regulation of reproductive rates within other cells
  - D. an exchange of gases within the body
- 7. Two types of human cells are shown in the diagram below.



Cell A causes the cells at B to contract. This activity would be most useful for

- A. lifting a book from a bookshelf
- B. coordinating the functions of organelles
- C. digesting food in the small intestine
- D. carrying out the process of protein synthesis

- 8. Which substances are found on cell surfaces and respond to nerve and hormone signals?
  - A. starches and simple sugars
  - B. subunits of DNA
  - C. vitamins and minerals
  - D. receptor molecules
- 9. Which diagram best represents the levels of organization in the human body?



- 10. Two primary agents of cellular communication are
  - A. chemicals made by blood cells and simple sugars
  - B. hormones and carbohydrates
  - C. enzymes and starches
  - D. hormones and chemicals made by nerve cells

## Answer Key 1: Nervous System

- 1. D
- 2. D
- 3. D
- 4. C
- 5. D
- 6. A
- 7. A
- 8. D
- 9. B
- 10. D