

DIAGNOSTIC TEST- CELL GROWTH AND DIVISION

Choose the letter of the best answer.

- _____ 1. An organized group of related parts that interact to form a whole is a(n)
 a. adaptation. c. arrangement.
 b. system. d. theory.
- _____ 2. The pancreas secretes insulin when blood sugar rises. The insulin triggers cells to take in sugar from the blood, which lowers the blood sugar level. This is an example of a(n)
 a. static system. c. homeostatic mechanism.
 b. independent observation. d. hormonal adaptation.
- _____ 3. In order to grow, all organisms must
 a. take in oxygen. c. capture sunlight.
 b. be chemosynthetic. d. use chemical energy.
- _____ 4. One of the major principles of cell theory states that all cells are produced by
 a. preexisting cells. c. endocytosis.
 b. free-cell formation. d. prokaryotic cells.
- _____ 5. What does the diagram in Figure 5.1 illustrate?

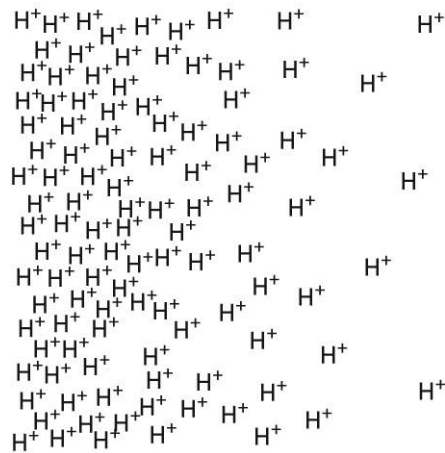


FIG. 5.1

- a. osmosis c. a concentration gradient
 b. activation energy d. an isotonic solution

Diagnostic Test *continued*

- _____ 6. Which of the following structures gives strength and support to plant cells?
- a. centrioles
 - b. centrosomes
 - c. chloroplasts
 - d. cell walls
- _____ 7. A cell's cytoskeleton provides structure and support for the cell. It also plays an important role in
- a. transport of molecules within the cell.
 - b. packaging of proteins.
 - c. cell division and movement.
 - d. supplying energy for cell processes.
- _____ 8. Scientists believe that all eukaryotes share a common ancestry because the nucleotides that make up all eukaryotic DNA are
- a. free.
 - b. complex.
 - c. the same.
 - d. ancient.
- _____ 9. Suppose you want to find the surface area of the football in Figure 5.2. Which of the following do you need to measure?

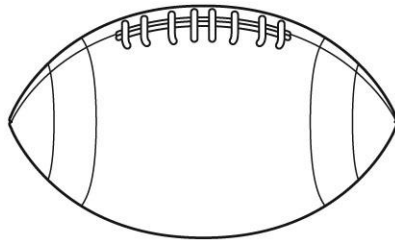


FIG. 5.2

- a. the weight of the football
 - b. the quantity of leather used
 - c. the pressure of the air inside
 - d. the amount of air it can hold
- _____ 10. In eukaryotic cells, the nucleus contains genetic information in the form of
- a. ribosomes.
 - b. DNA.
 - c. nucleoli.
 - d. ATP.