

**Multiple Choice**

*Write the letter of the choice that best completes the statement or answers the question.*

1. Which cell structure contains the cell's genetic material and controls many of the cell's activities?
  - a. organelle
  - b. nucleus
  - c. cell envelope
  - d. cytoplasm
2. Cells fall into two broad categories, depending on whether they
  - a. have a cell wall.
  - b. contain genetic material.
  - c. have a nucleus.
  - d. contain chloroplasts.
3. Eukaryotes usually contain
  - a. a nucleus.
  - b. specialized organelles.
  - c. genetic material.
  - d. all of the above
4. Which organelle breaks down compounds into small particles that the cell can use?
  - a. Golgi apparatus
  - b. lysosome
  - c. endoplasmic reticulum
  - d. mitochondrion
5. Prokaryotes lack
  - a. cytoplasm.
  - b. a cell membrane.
  - c. a nucleus.
  - d. genetic material.
6. Which of the following contains a nucleus?
  - a. prokaryotes
  - b. bacteria
  - c. eukaryotes
  - d. organelles
7. Which of the following is a function of the nucleus?
  - a. stores DNA
  - b. controls most of the cell's processes
  - c. contains the information needed to make proteins
  - d. all of the above
8. Which of the following is a function of the cytoskeleton?
  - a. helps a cell keep its shape
  - b. contains DNA
  - c. surrounds the cell
  - d. helps make proteins
9. Which of the following is an organelle found in the cytoplasm?
  - a. nucleolus
  - b. ribosome
  - c. chromatin
  - d. cell wall
10. Which of the following structures serves as the cell's boundary from its environment?
  - a. mitochondrion
  - b. cell membrane
  - c. chloroplast
  - d. channel proteins
11. The diffusion of water across a selectively permeable membrane is called
  - a. osmotic pressure.
  - b. osmosis.
  - c. facilitated diffusion.
  - d. active transport.
12. Which of the following is an example of an organ?
  - a. heart
  - b. epithelial tissue
  - c. digestive system
  - d. nerve cell