Name _____ Class_____Date_____

Assessment

Chapter Test

Cells And Their Environment

Using the word bank below, fill in each blank provided.

homeostasis nonpolar phospholipids receptor

1. One way that cells maintain _____ is by controlling the movement of substances across the cell membrane.
2. The cell membrane is made of a double layer of _____, called a lipid bilayer.
3. Only small, _____ substances can pass through the lipid bilayer.
4. Cell-surface markers, _____ proteins, enzymes, and transport proteins are types of proteins in the cell membrane.

In the space provided, write *T* if the statement is true or *F* if it is false.

_____ 5. The sodium-potassium pump transports potassium ions into the cell.

_____ 6. Osmosis is a type of active transport.

_____ 7. Carrier proteins are used in a process called facilitated diffusion.

_____ 8. Exocytosis is the movement of substances by a vesicle to the inside of the cell.

_____ 9. Equilibrium is reached when more molecules are inside a cell than are outside the cell.

In the space provided, write the letter of the term or phrase that best completes each sentence or answers each question.

_____ 10. Which of the following is a characteristic of active transport?
a. It moves substances against a concentration gradient.
b. It requires energy from the cell.
c. Both (a) and (b)

_____ 11. Diffusion is the movement of a substance
a. through only a lipid bilayer.
b. only in liquids.
c. from an area of high concentration to an area of lower concentration.

_____ 12. If the concentration of a sugar solution is lower outside the cell than inside the cell, which of the following will happen by osmosis?
a. Sugar will move into the cell.
b. Water will move into the cell.
c. Sugar will move out of the cell.

_____ 13. An ion channel is a transport protein that
a. moves substances against a concentration gradient.
b. pumps ions only out of a cell.
c. serves as a tunnel for specific substances.

_____ 14. Molecules that are too large to be moved through the cell membrane can be transported into the cell by
a. osmosis.
b. endocytosis.
c. exocytosis.

Match the words on the left with the statements on the right.

_____ 15. second messenger

_____ 16. binding site

_____ 17. receptor protein

_____ 18. signal

a. binds only to the signals that match the specific shape of its binding site

b. chemical that carries information to cells

c. acts as a signal molecule within the cell

d. unique shape of the outer part of a protein