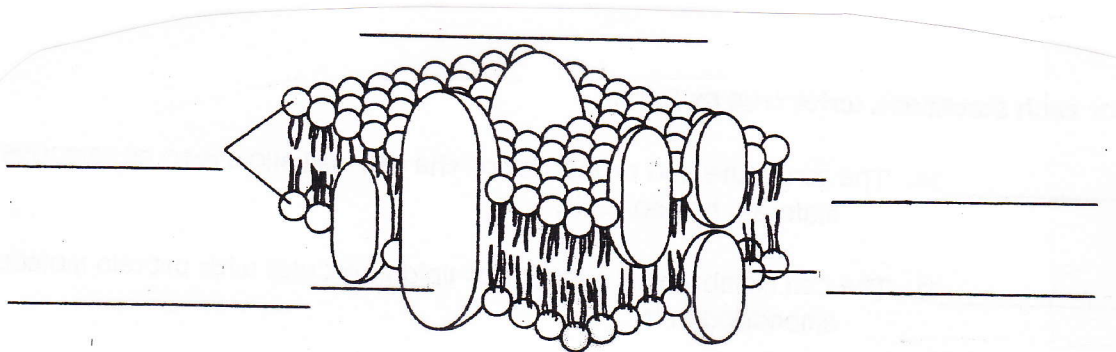


Name _____
Hour _____

Cell Membrane (pg. 182)

Write the title for the diagram and then label its parts. Use these choices:

protein molecule lipid bilayer polar head fatty acid fluid mosaic model



Use each of the terms below just once to complete the passage.

glucose
organism

cell membrane
balance

homeostasis
selective permeability

Living cells maintain a (1) _____ by controlling materials that enter and leave.

Without this ability, the cell cannot maintain (2) _____ and will die. The cell must regulate internal concentrations of water, (3) _____, and other nutrients and must eliminate waste products. Homeostasis in a cell is maintained by the (4) _____, which allows only certain particles to pass through and keeps other particles out. This property of a membrane is known as (5) _____. It allows different cells to carry on different activities within the same (6) _____.

Answer the following questions.

7. What is a lipid bilayer? (pg. 182)

8. Why is the current model of membrane structure called a mosaic? (pg. 182)

9. What are the bumps in the bilayer? How are they arranged in the bilayer? (pg. 182)

For each statement, write true or false. (pg. 182, 183, notes)

- _____ 10. The structure and properties of the cell wall allow it to be selective and maintain homeostasis.
- _____ 11. The cell membrane is a bilayer of lipid molecules with protein molecules embedded in it.
- _____ 12. A phospholipids molecule has a nonpolar, water-soluable head attached to a long polar, soluable tail.
- _____ 13. The fluid mosaic model describes the cell membrane as a structure that is liquid and very rigid.
- _____ 14. Cell membranes can contain cholesterol, which tends to make the membrane more stable.
- _____ 15. Proteins span the cell membrane, creating the selectively permeable membrane that regulates which molecules enter and leave a cell.
- _____ 16. Proteins at the inner surface of the cell membrane attach the membrane to the cell's support structure, making the cell rigid.