Cell Membrane Quiz

1. If a molecule’s concentration outside a cell is higher than it is inside the cell, that solution is _________________.
   a. isotonic  
   b. hypotonic  
   c. hypertonic  
   d. none of the above

2. If someone sprays perfume in one room, soon people in another room can smell it. Which of the following is this an example of?
   a. facilitated diffusion  
   b. osmosis  
   c. diffusion  
   d. active transport

3. Molecules that can diffuse across a membrane include _________________.
   a. many polar molecules  
   b. many nonpolar molecules  
   c. sugars  
   d. amino acids

4. 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  
   d. water will move out of the cell

5. When particles move out of a cell through facilitated diffusion, the cell _________________.
   a. gains energy  
   b. uses energy  
   c. releases energy  
   d. does not use energy

6. Osmosis and diffusion are both examples of _________________.

7. When the concentration of dissolved particles is the same throughout a solution, the system is said to be in _________________.

8. Why can oxygen gas, O₂, and carbon dioxide gas, CO₂, move through the cell membrane?

9. Sketch a cell membrane including the phospholipid bilayer, all different types of proteins, cholesterol. Explain how this model is fluid and what the fluidity allows the membrane to do.