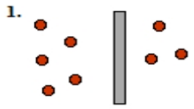
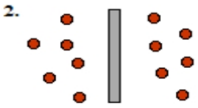
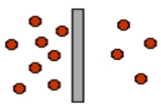
Osmosis and Diffusion Practice Name:

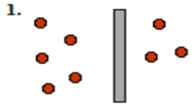
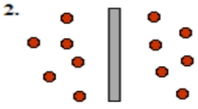
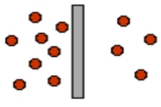
I. *Based on what you've* learned, in your own words, answer the following questions regarding movement of materials through a cell membrane. **DO NOT** COPY and PASTE!!!

1. What does semi-permeable mean? **
2. What is the net movement of molecules from high to low concentrations? **
3. What is the term for the diffusion of water? **
4. What does dynamic equilibrium mean? **
5. What is a hypertonic solution? **
6. What is a hypotonic solution? **
7. What is an isotonic solution? **

II. Observe the diagrams in the table below. Assume that the dots are dissolved particles on either side of the cell membrane. They are like **oxygen** molecules that can go across the membrane. Do the following situations represent concentration gradients? If so, in which direction would **diffusion** occur?

1. 		2. 		3. 	
gradient? Yes or No	**	**gradient?** Yes or No	**	**gradient?** Yes or No?	**
movement **left**, **right**, or **none**	**	movement **left**, **right**, or **none**	**	movement **left**, **right**, or **none**	**

III. Observe the diagrams in the table below. Assume that the dots are dissolved particles (like **protein** or **carbohydrate** molecules) on either side of the cell membrane. Do the following situations represent concentration gradients? If so, in which direction would **osmosis** occur?

1. 		2. 		3. 	
gradient? Yes or No	**	**gradient?** Yes or No	**	**gradient?** Yes or No?	**
movement **left**, **right**, or **none**	**	movement **left**, **right**, or **none**	**	movement **left**, **right**, or **none**	**