Eastern Regional High School
Honors Biology

Name:_Answer Key_____
Mod:_____ Date:_____

## Unit 7 - The Plasma Membrane

***Worksheet – Diffusion and Osmosis***

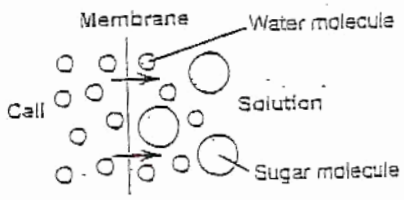
Part 1 – Key Terms

1. Define the term **diffusion**: _____high to low _____
_____

2. What is **osmosis**?_____$H_2O$ diffusion high to low_____
_____

Part 2 - Identify each solution below as isotonic, hypertonic or hypotonic. Then describe how the movement of water will affect the size and shape of the cell.

3.




Solution: _____hypertonic_____

Size and Shape: smaller, plasmolysis occurs _____
_____

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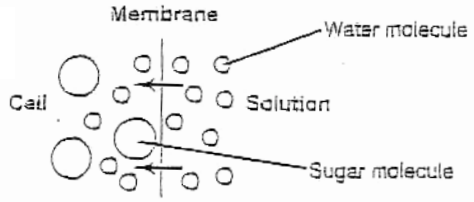
4.




Solution: _____hypotonic_____

Size and Shape: _____larger, could burst _____
_____*lysis*_____

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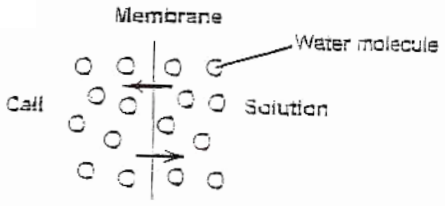
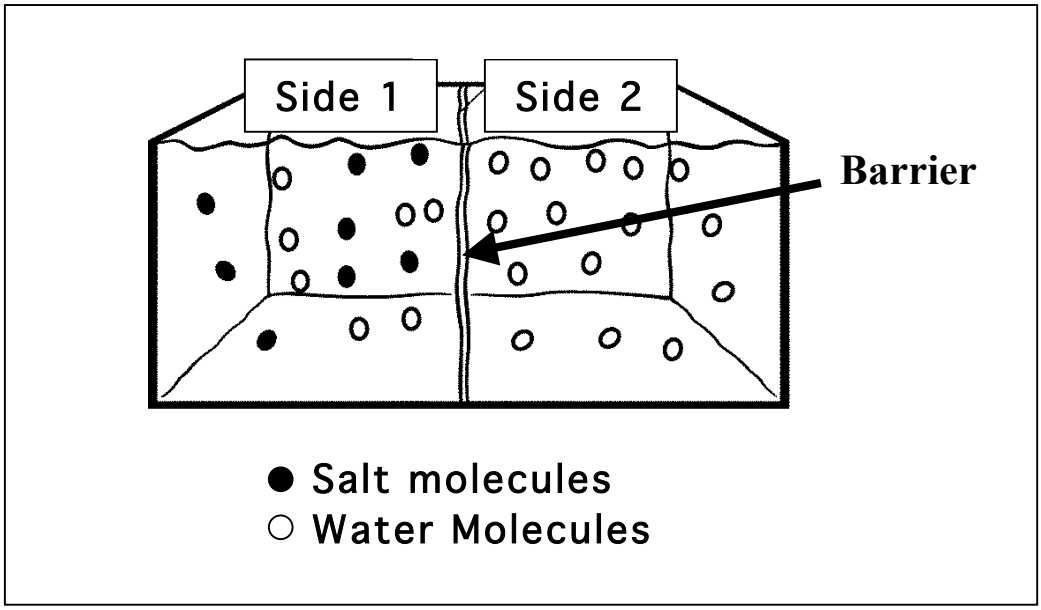
5.




Solution: _____isotonic_____

Size and Shape: _____no change_____
_____

**-OVER-**




6. Which side of the container has a **higher** concentration of **salt** molecules? _____side 1_____

7. The membrane above is selectively permeable to both salt and water molecules. Define the term selectively (semi) permeable.
_____allows some molecules to pass while others are blocked
_____
_____

8. Given that both salt and water can cross the membrane, over time how will the concentration of molecules change in the diagram above?
_____reach equilibrium or "balance"_____
_____
_____

9. What will the diagram look like when the molecules have reached equilibrium?
_____equal numbers of light and dark molecules on each side_____
_____

10. What process causes the molecules to move from side 1 to side 2? ___diffusion & osmosis_____