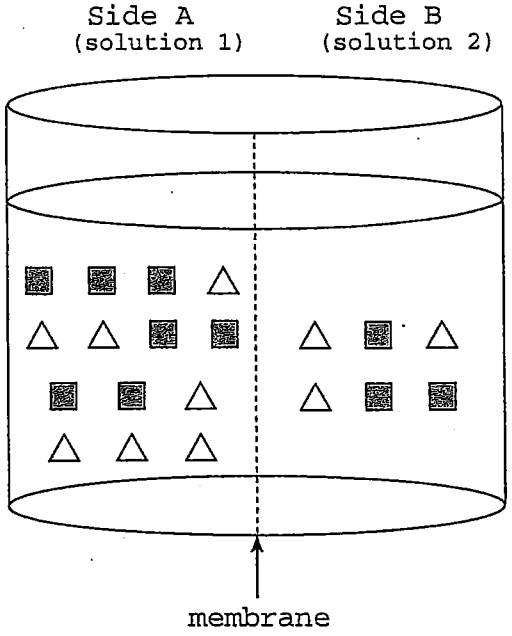
___10. What will happen to an ANIMAL cell when it is placed into the following:
A) Hypotonic Solution B) Hypertonic Solution

___11. What will happen to an ANIMAL cell when it is placed into the following:
A) Hypotonic Solution B) Hypertonic Solution

PRACTICE QUIZ

1. Which of the following molecules will pass through a cell membrane by simple diffusion?
A. water B. an enzyme C. nucleic acid D. carbohydrate

Use the following diagram to answer question [illegible] to [illegible]

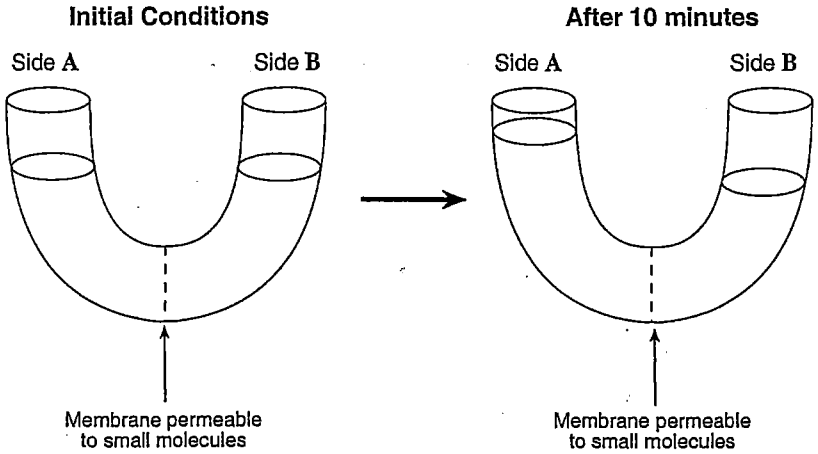


2. The diagram shows two solutions containing solutes ▩ and △ dissolved in water and separated by a membrane. If the membrane is only permeable to water, which of the following will occur?
A. △ will move from side A to side B.
B. The concentration of ▩ on side A will increase.
C. The concentration of ▩ on side B will increase.
D. Final amounts of ▩, △ and water will be equal on each side.

. If the membrane is permeable to ▩ but **not** to △ or water, side A will
A. swell and possibly burst. B. become isotonic to side B.
C. remain hypertonic to side B. D. become hypotonic to side B.

3. If the solute concentration of solution A is greater than solution B, then solution A is said to be:
A. isotonic to solution B. B. osmotic to solution B.
C. hypertonic to solution B. D. hypotonic to solution B.

4. **Use the below diagram for the following question**

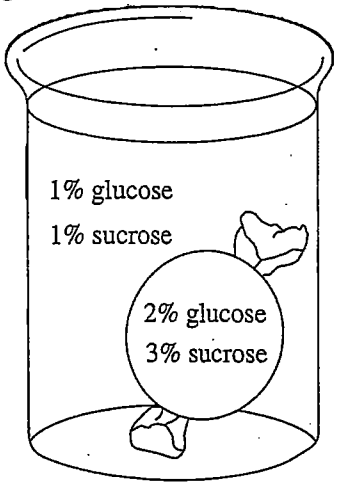


Which of the following conditions would cause the change in the fluid levels as shown after 10 minutes?

	SOLUTION IN SIDE A	SOLUTION IN SIDE B
A.	distilled water	5% salt
B.	2% glucose	5% glucose
C.	5% protein	2% protein
D.	2% salt	2% salt

A. A B. B C. C D. C

5. A 2% glucose and 3% sucrose solution was added to a bag made from a membrane that is permeable only to water and glucose. The bag was then placed in a beaker of water containing a 1% glucose and 1% sucrose solution. Which of the following would describe the sugar concentrations inside the bag after one hour?

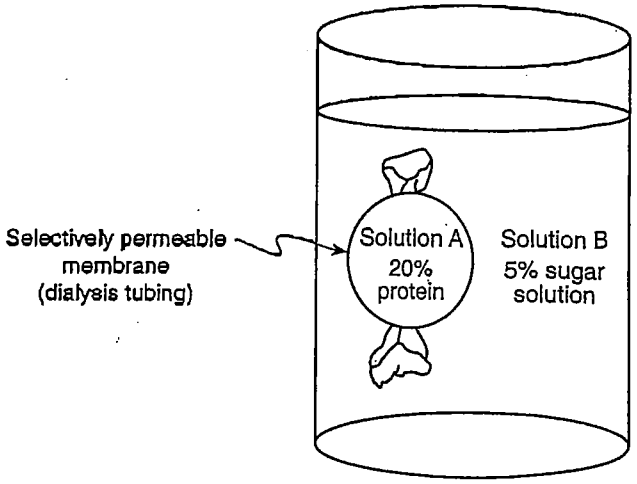


A. Both the glucose and sucrose concentrations would increase.
B. Both the glucose and sucrose concentrations would decrease.
C. The sucrose concentration would increase and the glucose concentration would decrease.
D. The sucrose concentration would decrease and the glucose concentration would increase.

6. Which of the following conditions is required for diffusion to occur?
A. ATP energy
B. a living cell
C. a concentration difference
D. a selectively-permeable membrane

7. If a 0.9% salt solution is isotonic to a certain type of animal cell, the cell will lose mass if it is placed in
A. distilled (pure) water.
B. 0.5% salt solution.
C. 0.9% salt solution.
D. 1.2% salt solution.

8. In the situation shown in the diagram below,



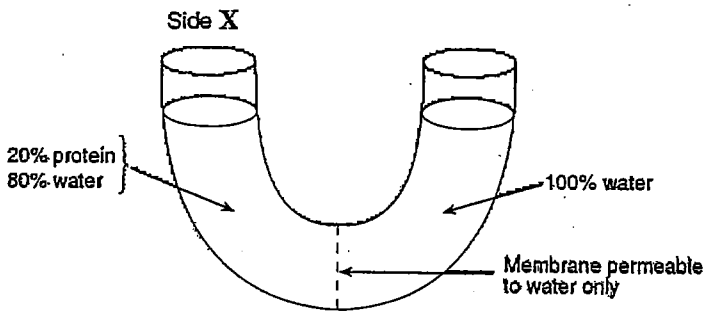
A. water will enter A and the concentration of the protein solution will increase.
B. water will enter A and the concentration of the protein solution will decrease.
C. water will enter B and the concentration of the protein solution will increase.
D. water will enter B and the concentration of the protein solution will decrease.

9. Red blood cells are placed in a highly concentrated salt solution. Which of the following describes their environment and what would happen to the cells?

	ENVIRONMENT INSIDE OF CELLS RELATIVE TO ENVIRONMENT OUTSIDE OF CELLS	ENVIRONMENT OUTSIDE OF CELLS RELATIVE TO ENVIRONMENT INSIDE OF CELLS	WHAT HAPPENS TO THE CELLS
A.	hypertonic	hypotonic	swell
B.	hypertonic	hypotonic	shrink
C.	hypotonic	hypertonic	swell
D.	hypotonic	hypertonic	shrink

A. B. C. D.

10. In the diagram below, what happens to the fluid level and protein concentration on side X?



A. Fluid level increases and protein concentration increases.
B. Fluid level increases and protein concentration decreases.
C. Fluid level decreases and protein concentration increases.
D. Fluid level decreases and protein concentration decreases.

11 Osmosis and facilitated transport are similar in that they both move molecules:
A. without using ATP.
B. using carrier proteins.
C. against a concentration gradient.
D. along the endoplasmic reticulum.