**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Block: \_\_\_\_\_**

**Osmosis Pre-lab Questions**

**(February 15, 2013)**

1. What is the independent variable? (**1 pt**) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What is the dependent variable? (**1 pt**) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Define osmosis. (**1 pt**)

**4**. Write out your hypothesis for this experiment? (**1 pt**)

**5**. Explain the reasoning behind your hypothesis in #4. (**1 pt**)

**6**. For the following 3 scenarios, write-in one of the bold-faced terms below that describes the

relationships between the two aqueous solutions of different concentrations. (**1 pt. each**)

**Isotonic Hypertonic Hypotonic**

**a**. A cell sits in an aqueous environment that has a 20% solute concentration solution. If

the cell has a 10% solute concentration cytoplasm, the cell is in a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

environment.

**b**. A cell sits in an aqueous environment that has a 10% solute concentration solution. If

the cell has a 20% solute concentration cytoplasm, the cell is in a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

environment.

**c**. A cell sits in an aqueous environment that has a 15% solute concentration solution. If

the cell has a 15% solute concentration cytoplasm, the cell is in a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

environment.

**7**. On the graph below, set up the **labeling**, **units of measurements**, and **title**. Hint: the dependent variable will be Percent Mass Change (**%**). (**3 pts**)

