

1. A solution is made by dissolving some salt in a beaker of water. The salt is referred to as the  
A. solute                      B. filtrate                      C. solution                      D. solvent
2. When KCl dissolves in water, the following will be produced.  
A. K and Cl                      B.  $K^+$  and  $Cl^-$                       C. K and  $Cl_2$                       D.  $K^+$  and  $Cl_2$
3. What is the concentration, in % (m/v) of a solution containing 15.0 g KCl in 600.0 mL solution?  
A. 5.00%                      B. 2.00%                      C. 0.200%                      D. 2.50%
4. A 5.00 mL sample of solution has  $2.8 \times 10^{-4}$  g of calcium ions. The **ppm** concentration is  
A. 18 ppm                      B. 56 ppm                      C.  $2.8 \times 10^{-1}$  ppm                      D.  $2.8 \times 10^2$  ppm
5. How many mL of 2.50% (m/v) salt solution would contain 1.80 g of salt?  
A. 105 mL                      B. 104 mL                      C. 45.0 mL                      D. 72.0 mL
6. What is the molarity of a solution that contains 1.50 mol HCl in 2.50 L of solution?  
A. 1.67 M                      B. 0.600 M                      C. 1.20 M                      D. 1.40 M
7. How many moles of  $C_{12}H_{22}O_{11}$  are needed to prepare 2.50 L of 0.300 M solution?  
A. 0.750 mol                      B. 0.430 mol                      C. 8.33 mol                      D. 1.20 mol
8. What is the molarity of a  $NaNO_3$  solution made by diluting 250.0 mL of a 1.60 M solution to a final volume of 400. mL?  
A. 1.20 M                      B. 1.00 M                      C. 0.200 M                      D. 0.160 M
9. In the process known as osmosis, \_\_\_\_\_ moves through a semi-permeable membrane into an area of lower \_\_\_\_\_ concentration.  
A. water, water                      B. solute, solute                      C. water, solute                      D. solute, water
10. What is the osmolarity of 0.800M  $(NH_4)_3PO_4$  solution?  
A. 3.20 osmol                      B. 2.40 osmol                      C. 1.60 osmol                      D. 8.00 osmol

**Answers**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>A</b>	<b>B</b>	<b>D</b>	<b>B</b>	<b>D</b>	<b>B</b>	<b>A</b>	<b>B</b>	<b>A</b>	<b>A</b>