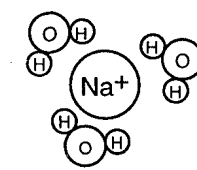
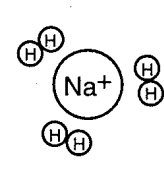


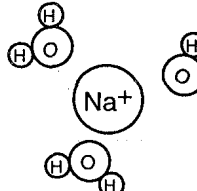
## Regents Practice Questions

- \_\_\_\_\_ 1) In an aqueous solution of potassium chloride, the solvent is  
 1) Cl 2) K 3) KCl 4) H<sub>2</sub>O
- \_\_\_\_\_ 2) In an aqueous solution of potassium chloride, the solute is  
 1) Cl 2) K 3) KCl 4) H<sub>2</sub>O
- \_\_\_\_\_ 3) The amount of KCl(s) that can dissolve in water depends most on the  
 1) pressure on the solution  
 2) rate of stirring  
 3) size of the KCl sample  
 4) temperature of the water
- \_\_\_\_\_ 4) Under which conditions of temperature and pressure is a gas most soluble in water?  
 1) high temperature and low pressure  
 2) high temperature and high pressure  
 3) low temperature and low pressure  
 4) low temperature and high pressure
- \_\_\_\_\_ 5) The attraction between water molecules and an Na<sup>+</sup> ion or a Cl<sup>-</sup> ion occurs because water molecules are  
 1) linear 3) polar  
 2) symmetrical 4) nonpolar
- \_\_\_\_\_ 6) At room temperature, the solubility of which solute in water would be most affected by a change in pressure?  
 1) methanol 3) carbon dioxide  
 2) sugar 4) sodium nitrate
- \_\_\_\_\_ 7) A change in pressure would have the greatest effect on the solubility of a  
 1) solid in a liquid 3) liquid in a liquid  
 2) gas in a liquid 4) liquid in a solid
- \_\_\_\_\_ 8) The solubility of KClO<sub>3</sub>(s) in water increases as the  
 1) temperature of the solution increases  
 2) temperature of the solution decreases  
 3) pressure on the solution increases  
 4) pressure on the solution decreases
- \_\_\_\_\_ 9) When a salt dissolves in water, the water molecules are attracted by dissolved salt particles. This attraction is called  
 1) atom-atom  
 2) molecule-molecule  
 3) ion-ion  
 4) molecule-ion
- \_\_\_\_\_ 10) Which diagram best illustrates the hydration of sodium ions in an aqueous solution? [The diagrams are not drawn to scale.]
- 1)

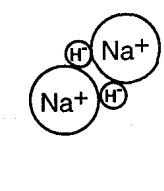


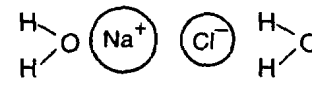
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- 2)

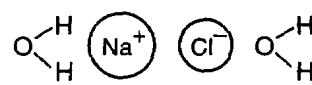


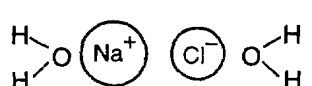
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- \_\_\_\_\_ 11) Which diagram best illustrates the ion-molecule attractions that occur when the ions of NaCl(s) are added to water?
- 1)

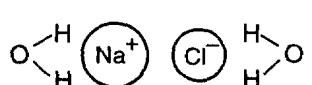


2)


- 3)



4)


- \_\_\_\_\_ 12) Which of the following two substances will be able to dissolve?  
 1) polar solute and non-polar solvent  
 2) polar solute and polar solvent  
 3) non-polar solute and polar solvent  
 4) ionic solute and non-polar solvent