Class XII

CHEMISTRY

Chapter – 2 (SOLUTIONS)

Assignment questions:

Q1. Which one is more preferred – molarity or molality? Why?

Q2. Which one is more concentrated 1Molar or 1 molal? Justify.

Q3. Give reason: a) Gases tend to be less soluble in liquids as the temperature is raised.

b) Aquatic animals are more comfortable in cold water or hot water.

Q4. State Henry's law. Write its two applications.

Q5. Commercially available concentrated HCl contains 38% HCl by mass. What is the molarity of the solution if its density is 1.19g/mL.

Q6. Determine the molarity of an antifreeze solution containing 250g water mixed with 222g ethylene glycol ($C_2H_6O_2$). The density of this solution is 1.07g/mL.

Q7. Calculate molarity of the solution containing ethanol in water if the mole fraction of ethanol is 0.040. (density of water = 1)

Q8. Calculate molality of 3 M NaCl solution having density of solution 1.5g/mL.

Q9. What is the relationship between Partial pressure of a gas and its mole fraction?

(b) What is the effect on solubility of gas in liquid of temperature is increased?

Q10. N_2 and O_2 gases have K_H values 76.48 kbar and 34.86 kbar respectively at 293 K temperature. Which one of these will have more solubility in water?

Q11. What is the composition of mixture of gases used in scuba diving apparatus? Give reason.