

Class-XII
CHEMISTRY (043)
Chapter-2 (Solutions)
ASSIGNMENT-2
(One mark)

1. Define the term solution. How many types of solutions are formed?
2. Define mole fraction.
3. How does the Molarity of a solution change with temperature?
4. Define Solubility.
5. State Henry law.
6. Write any one application based on Henry's law.
7. Define Anoxia.
8. What is the importance of Henry, s law constant?
9. Enumerate factors affecting solubility of a solute in a given solvent.
10. Comment on the following statement: "The importance of solutions in life is determined by Its concentration"

(Two mark)

11. Calculate the mole fraction of ethylene glycol ($C_2H_6O_2$) in a solution containing 20% of $C_2H_6O_2$ by mass.
12. Calculate the molarity of a solution containing 5g of NaOH in 450mL solution.
13. Calculate molality of 2.5g ethanoic acid in 75g benzene.
14. Calculate the mass percentage of Benzene in solution containing 30% by mass in carbon tetrachloride.
15. If N_2 gas is bubbled through water at 293K, how many mill moles of N_2 gas would dissolve in one litre of water? Assume that N_2 exerts a partial pressure of 0.987bar. Given that Henry's law constant for N_2 at 293K is 76.48kbar.
16. What role does the molecular interaction play in a solution of alcohol and water?
17. State Raoult,s law for the solution containing volatile components. What is the similarity Between Raoult, s law and Henry's law.
18. Write two differences between a solution showing positive deviation and a solution showing Negative deviation from Raoult,s law.
19. Differences between Ideal and non-Ideal solution.
20. (i) Why is an increase in temperature observed on mixing chloroform and acetone.
(ii) Why does sodium chloride solution freeze at a lower temperature than water?

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