

**Class-XII**  
**CHEMISTRY (043)**  
**Chapter-2 (Solutions)**  
**ASSIGNMENT-3**  
**(One mark)**

1. Define Azeotropic mixture.
2. What are the different types of Azeotropic mixture?
3. When a non-volatile is added to a volatile solvent, the -----of solution decreases.
4. What are colligative properties?
5. Define ebullioscopic constant.
6. Define cryoscopic constant.
7. Illustrate elevation in boiling point with the help of vapour pressure-temperature curve of a Solution.
8. Define freezing point.
9. Draw a diagram showing depression of the freezing point of a solvent in a solution.
10. How does sprinkling of salt help in clearing the snow covered roads in hilly areas.

**(Two mark)**

11. What is the importance of semi permeable membrane in osmosis? Explain
12. Prove that relative lowering in vapour pressure of a liquid on addition of non-volatile solute Is a colligative property.
13. Write the mathematical form of Raoult's law of relative lowering of vapour pressure.
14. Why the boiling point of a liquid gets raised on dissolution of non-volatile solute into it?
15. Derive the relationship between depression of freezing point and molar mass of the solute.
16. Due to the presence of glucose (non volatile solute) in water (solvent), the vapour pressure of The solvent decreases. Why?
17. How can molar mass of a substance be determined from the measurement of osmotic Pressure of a solution?
18. What are isotonic, hypertonic and hypotonic solutions?
19. (a) What is Reverse osmosis?  
(b) How is it used in water purification?
20. What is Van, t of factor? How is it related to colligative property?

**Books prescribed for class XII: NCERT TEXT BOOK, [ncert.nic.in](http://ncert.nic.in), e- Books are available on Diksha app.  
([www.cbse.ac.in](http://www.cbse.ac.in))**