

D.A.V MUKHYAMANTRI PUBLIC SCHOOL PATRATU

Summer Vacation Homework (2020 - 21)

Class: XII

Subject: Chemistry

1. What is meant by reverse osmosis?
2. What is isotonic solution?
3. Some liquid on mixing form azeotropes. What are azeotropes?
4. What type of intermolecular attractive interaction exists in the pair of methanol and acetone?
5. Out of BaCl_2 and KCl which one is more effective in causing of a negatively charged colloidal sol? Give reason/
6. Non ideal solution exhibit positive or negative deviation from Raoult's law. What are these deviations and why are they caused? Explain with one example for each type.
7. Define the term Osmosis and Osmotic pressure. What is the advantage of using osmotic pressure as compared to other colligative properties for the determination of molar masses of solutes in solutions?
8. 1.00 molal aqueous solution of trichloroacetic acid (CCl_3COOH) is heated to its boiling point. The solution has boiling point of 100.18°C . Determine the Van't Hoff factor for trichloroacetic acid. (K_b for water = $0.512 \text{ K kg mol}^{-1}$)
9. What is limiting molar conductivity?
10. Write the electrochemical series and learn it.
11. Prepare a model of electrochemical cell or Daniel cell.
12. Prepare a project on "chemistry in everyday life"