

Cambrian Public School, Kanke Road, Ranchi

Chemistry Assignment – Class XII

Session : 2026–2027

Chapter : Solutions

1. Calculate the mass percentage of sugar in a solution containing 10 g sugar dissolved in 90 g water.
2. A solution contains 5 moles of sodium chloride dissolved in 2 kg of water. Calculate the molality of the solution.
3. State Henry's Law. Write one practical application of Henry's Law.
4. Explain why vapour pressure decreases when a non-volatile solute is added to a solvent.
5. Activity Based Question: Prepare two copper sulphate solutions of different concentrations and compare their colour intensity. What conclusion can be drawn regarding concentration and colour intensity?

Chapter : Electrochemistry

6. Define electrochemical cell with one suitable example.
7. Write the Nernst equation for a galvanic cell and explain the meaning of each term.
8. Differentiate between electrolytic cell and galvanic cell.
9. Explain the electrolysis of molten sodium chloride with electrode reactions.
10. Activity Based Question: Prepare a simple lemon cell using zinc and copper strips. Identify the anode and cathode and mention your observations.

Chapter : Chemical Kinetics

11. Define rate of reaction. Write its SI unit.
12. Explain the effect of temperature on the rate of a chemical reaction.
13. Differentiate between zero order and first order reactions.
14. What is activation energy? Why is it important in chemical reactions?
15. Activity Based Question: Compare the decomposition of hydrogen peroxide at room temperature and at higher temperature using manganese dioxide catalyst. What conclusion can be drawn?