



Sarvan Sir- Chemistry for ALL

JEE/NEET/CBSE

Solution only theory questions

1. Define solution.
2. Types of solutions on the basis of physical states of solute and solvent, with examples.
3. Define solubility.
4. Factors affecting solubility.
5. What is saturated and unsaturated solution? Explain equilibrium concept.
6. Define Henry's law and write its applications.
7. Why does aquatic life feel more comfortable in cold water?
8. Why does solubility of a gas decrease with increase in temperature?
9. Write the relation of Henry's law constant with temperature.
10. Define Raoult's law.
11. Define ideal and non-ideal solutions with examples.
12. Write the properties of an ideal solution.
13. How many types of non-ideal solutions are there? Explain with examples.
14. Draw graphs for non-ideal solutions.
15. Why does a mixture of acetone and ethanol show positive deviation from Raoult's law?
16. Why does a mixture of chloroform and acetone show negative deviation from Raoult's law?
17. Which has higher vapour pressure: pure solvent or solution when solute is non-volatile?
18. What is a colligative property? Write its four types.
19. Why is the boiling point of a solution higher than that of a pure solvent when the solute is non-volatile? Explain with graph.
20. Why is the freezing point of a solution lower than that of a pure solvent when the solute is non-volatile? Explain with graph.



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21. Define osmosis.
22. Define osmotic pressure.
23. Define isotonic, hypertonic and hypotonic solutions with examples.
24. Write applications of osmosis.
25. Why is osmotic pressure method used to determine molar mass of solute?
26. Explain why Raoult's law is a special case of Henry's law.
27. Define van't Hoff factor.
28. Define normal and abnormal molar mass.
29. Write the standard formulae for expressing concentration of solutions.
30. Why do sodium chloride and sugar dissolve readily in water, whereas naphthalene and anthracene do not?
31. Why do naphthalene and anthracene dissolve readily in benzene, whereas sodium chloride and sugar do not?
32. What are the bends in scuba diving?
33. How can bends in scuba diving be avoided?
34. Why do people suffer from anoxia at higher altitudes?
35. What is an azeotropic mixture?
36. What are the types of azeotropic mixtures?
37. Write the relation between degree of dissociation/association and van't Hoff factor.
38. Define K_b and K_f .
39. Why does molality remain constant with change in temperature whereas molarity does not?
40. Define colligative properties. Why are they called colligative?
41. Why does an aqueous solution of NaCl show abnormal molar mass?