

Answers:

SOLIDS

01. Graphite

02. Free ions

03. Isomorphous

04. Super cooled liquid

05. Face centered cubic

06. 8

07. 7

08. Atoms

09. 0.732—1

10. AB

11. 241pm

12. 125pm

13. Ice.

14. Molecular crystal

15. They are anisotropic

16. 4

17. Unit cell

18. 6

19. A_3B_4

20. 4×10^{25}

COLLOIDS

01. Ghee
02. Aerosol
03. A liquid in a liquid
04. Viscosity and surface tension are about the same for water
05. Peptisation
06. Dialysis
07. S^{2-}
08. Electrophoresis
09. Electrophoresis
10. NaCl
11. Ferric hydroxide
12. Colloidal silver
13. Its action as an emulsifying agent
14. Gelatin
15. Liquid dispersed in gas
16. Sugar solution
17. Tonic to raise vitality of human system
18. Protein + water
19. Lower than that of water
20. Gold

THEORY OF DILUTE SOLUTIONS:

01. Increase of P & decrease of T
02. m, x
03. Structure of the solute particle
04. Hypertonic
05. 0.91%NaCl solution
06. Osmotic pressure
07. More in solvent bulb
08. Freezing point
09. All
10. The relative lowering of vapour pressure = to the X_{solute}
- 11.0.2 π ,
12. A saturated solution of CO_2
13. 1.0
- 14.Negative
15. Benzene—Toluene
16. $P \propto V$ if T is constant
17. $\Delta V = +ve$, $\Delta H = +ve$
18. Neither HCl nor H_2O in their pure states
19. $\text{H}_2\text{O} + \text{C}_4\text{H}_9\text{OH}$
- 20.Ice
21. Osmotic pressure
22. 0.1 M NaCl solution and 0.1 M sugar solution
23. Molality
24. 0.1 M sugar solution
- 25.1000 g of the solvent
26. Decreases the F P and increases the B.P
27. Solute molecules to the total molecules in the solution

28. Less than 58.5

29. Equal to second

30. Gradually increases

31. $\Delta S_{\text{mixing}} = 0$

**32. No transfer of solvent from solution of A to that
of B takes place**

33. 1 M $(\text{NH}_4)_3 \text{PO}_4$

34. 0.1 molal solution of CaCl_2

35. Molality of the solution

36. $\Delta H_{\text{mix}} < 0$

37. 1.8 L

38. 21.42 mm of Hg

39. 0.25

40. 156 mm of Hg