Chemistry

Chapterwise Practise Problems (CPP) for NEET

Chapter - Solution

1. If Hg_2Cl_2 is 100% ionised then its van't Hoff factor will be

   (1) 2 (2) 4

   (3) 6 (4) 3

2. Lowering of vapour pressure for 1m aqueous solution is 1.08 mm of Hg at 25°C. The vapour pressure of pure liquid at 25°C is 10x mm of Hg. The value of x will be, assuming very dilute solution

   (1) 4 (2) 6

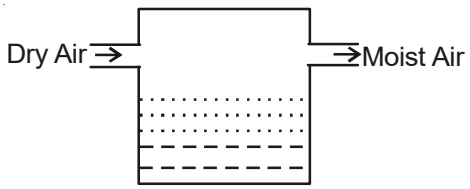
   (3) 8 (4) 3

3. How many terms will have negative value for a solution showing –ve deviation ?

   ΔG_{mix}, ΔS_{mix}, ΔH_{mix}, ΔV_{mix}

   (1) 2 (2) 3

   (3) 4 (4) 1

4. 

   The above set up has been repeated four times with 4 different aqueous solution of same non-volatile solute with different concentrations. The loss in weight of solution in container is in order D > B > C > A. Arrange A, B, C, D in terms of concentration of solute

   (1) D > B > C > A (2) A > B > C > D

   (3) A > C > B > D (4) A > D > C > B

5. Azeotropic mixture of water and C_2H_5OH boils at 351K. By distilling the mixture, it is possible to obtain

   (1) Pure C_2H_5OH only

   (2) Pure water only

   (3) Both water and C_2H_5OH in pure state

   (4) Neither C_2H_5OH nor water

6. Consider 0.1 M solution of two solutes X and Y. Solute X dissociates in two ions whereas Y dimerises in the solution. Which of the following is false ? (X and Y represents solution containing X and Y respectively)

   (1) $(\Delta T_b)_X > (\Delta T_b)_Y$ (2) $(B \cdot P)_X > (B \cdot P)_Y$

   (3) $(F \cdot P)_X > (F \cdot P)_Y$ (4) $(\Delta T_f)_X > (\Delta T_f)_Y$

7. An ideal solution was found to have a vapour pressure of 80 torr when the mole fraction of non-volatile solute is 0.2. Find vapour pressure of pure solvent at same temperature.

   (1) 64 torr (2) 72 torr

   (3) 80 torr (4) 100 torr

8. The freezing point of a 4% (w/v) aqueous solution of 'A' is equal to the freezing point of 10% (w/v) aqueous solution of 'B'. The molecular weight of A is 60, find out the molecular weight of B. Assume both A and B are non electrolyte and molarity = molality

   (1) 150 (2) 90

   (3) 45 (4) 180

9. When mercuric iodide is added to the aqueous solution of KI, then the :

   (1) Freezing point is raised

   (2) Freezing point is lowered

   (3) Freezing point does not change

   (4) Boiling point does not change

10. Henry law constant of N_2 in water is 10^4 atm. Find the molality (Approx) of N_2 in water when pressure of N_2 over water surface is 5 atm (consider temperature remains constant)

    (1) 0.10 (2) 0.028

    (3) 0.05 (4) 0.12

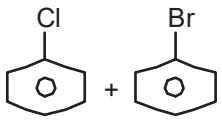
11. Vapour pressure of a solvent is decreased by 10 mm of Hg. When a non-volatile, non-electrolytic solute was added. Mole fraction of the solute in solution is 0.2. Find out mole fraction of the solute if decrease in vapour pressure is 20 mm of Hg :

(1) 0.1 (2) 0.2

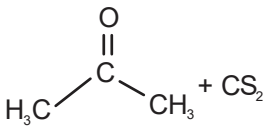
(3) 0.4 (4) 0.3

12. The pair of solutions which show –ve deviation from Raoult's law is :

(1) $CCl_4 + CHCl_3$

(2) 

(3) $H_2O + HNO_3$

(4) 

13. Two solutions of glucose have osmotic pressure 1.5 atm and 2.5 atm respectively. 1 lit of first solution is mixed with 2 lit. of second solution at the same temperature. Then the osmotic pressure of resultant solution will be :

(1) 2.16 atm (2) 3.5 atm

(3) 5.12 atm (4) 7.2 atm

14. Which one of the following solution has highest boiling point ? (considering Molality $\approx$ Molarity)

(1) 0.2 (M) Aqueous NaCl solution

(2) 0.5 (M) Aqueous Glucose solution

(3) 0.3 (M) Aqueous $CaCl_2$ solution

(4) 0.2 (M) Aqueous urea solution

15. What is ΔT_b for 0.2 molal aqueous solution of urea? (K_b of H_2O = 0.52)

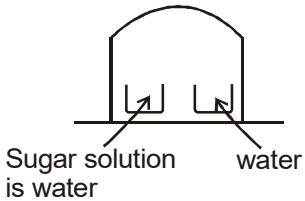
(1) 0.104 K (2) 101.04 K

(3) 0.506 K (4) 5.06 K

16. The value of van't Hoff factor for $K_4[Fe(CN)_6]$, if it is 20 % ionised is

(1) 5 (2) 4

(3) 1.8 (4) 1

17. 

The two beakers are inside a jar as shown and kept for a long duration. Then

(1) Mass of sugar solution will increase

(2) Mass of sugar solution will decrease

(3) Mass of H_2O in the right hand beaker will increase

(4) No change in mass of either beaker

18. Relative lowering of vapour pressure produced in a solution in which mole fraction of solvent is 0.7 is

(1) 1 (2) 0.7

(3) 0.3 (4) 0.5

19. Which of the following physical quantity is not zero for an ideal solution?

(1) ΔH_{mixing} (2) ΔS_{mixing}

(3) ΔV_{mixing} (4) All of these

20. Which one of the following form maximum boiling point azeotrope ?

(1) $CHCl_3 + C_2H_5OH$ (2) Ethanol + water

(3) Benzene + toluene (4) HCl + water

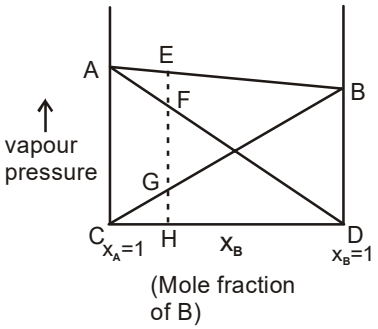
21. Relative lowering in vapour pressure of a solution containing 1 mole K_2SO_4 in 54g H_2O is (K_2SO_4 is 100% ionised)

(1) $\frac{1}{55}$ (2) $\frac{3}{55}$

(3) $\frac{3}{4}$ (4) $\frac{1}{2}$

22. In the following graph, vapour pressure is potled against mole fraction of the components.

Which of the following statement is correct ?



(1) AD represents variation of vapour pressure of liquid A with x_A

(2) BC represents variation of vapour pressure of liquid B with x_B

(3) GH + FH = EH

(4) All of these

23. Henry's law constant for O_2 and N_2 are

$K_{O_2} = 3.3 \times 10^7$, $K_{N_2} = 6.6 \times 10^7$

Calculate ratio of $\frac{x_{O_2}}{x_{N_2}}$, i.e, the ratio of mole fraction of O_2 and N_2 dissolved in water at 25°C assuming that air contains 80% N_2 and 20% O_2 by volume

(1) 0.62 (2) 0.92

(3) 0.42 (4) 0.5

24. The solubility of which of the following substances will decrease with increase of temperature ?

(1) Calcite (2) Na_2CO_3

(3) Na_2SO_4 (4) All of these

25. Which of the following will not show positive deviation ?

(1) Ethyl alcohol and cyclohexane

(2) CCl_4 and $CHCl_3$

(3) n-butane and n-pentane

(4) CH_3COCH_3 and aniline

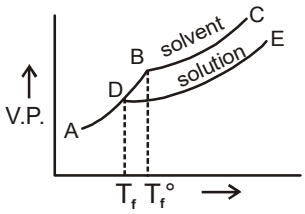
26. For which of the solvent K_f has the highest value ?

(1) Benzene (C_6H_6)

(2) Water (H_2O)

(3) CCl_4

(4) Camphor ($C_{10}H_{16}O$)

27. 

Which of the following statements is/are correct for the above graph ?

(1) BC shows variation of vapour pressure of pure solvent with temperature

(2) D represent freezing point of solution

(3) AB corresponds to the vapour pressure of solid at different temperature

(4) All of these

28. Vapour pressure of a pure solvent is 200mm Hg. If 2 mole of a non volatile solute is mixed in 8 mole of solvent, the relative lowering of vapour pressure will be

(1) 0.2 (2) 0.4

(3) 0.6 (4) 0.8

29. The solubility of a specific non volatile salt is high at 25°C. If 2gm, 4gm and 6gm of the salt added to 100gm at 25°C, the vapour pressure X,Y,Z (respectively) will follow the order of

(1) X>Y=Z (2) X>Y>Z

(3) Z>Y>X (4) X = Y = Z

30. Henry law constant for N_2 in water at 25°C is 2×10^5 atm. Mass of N_2 in 500mL water at 1atm pressure at 25°C is:

(1) 2.4×10^{-5}g (2) 1.4×10^{-6}g

(3) 1.4×10^{-4}g (4) 3.9×10^{-3}g

31. Which of the following aqueous solution has highest boiling point?

(1) 0.02 M NaCl (2) 0.05 M sucrose

(3) 0.005 M $CaCl_2$ (4) 0.02 M $CaCl_2$

32. A complex is represented as $CoCl_3.xNH_3$. Its 0.1 molar solution in water shows melting point –0.558K. (K_f of H_2O=1.86 K molality^{-1}). Assuming 100% ionization of complex and coordination number of Co is 6, formula of complex is

(1) $[Co(NH_3)_5Cl]Cl_2$ (2) $[Co(NH_3)_6]Cl_3$

(3) $[Co(NH_3)_4Cl_2]Cl$ (4) All of these

33. For (a) positive deviation solution, enthalpy change is

(1) $\Delta H = 0$ (2) $\Delta H > 0$

(3) $\Delta H < 0$ (4) All of these

34. Amount of ice that will separate out on cooling a solution containing 50 g ethelene glycol in 200 gm water to – 9.3°C will be (K_f water = 1.86 K kg mol^{-1})

(1) 38.7 g (2) 3.87 g

(3) 83.7 g (4) 8.37 g

35. The temperature at which 10% aqueous solution (W/V) of glucose will exhibit the osmotic pressure of 16.4 atm is [R = 0.082 dm^3 atm K^{-1} mol^{-1}]

(1) 360 K (2) 180 K

(3) 90 K (4) 300 K

36. Find the amount of urea that should be dissolved in 100g of water in order to reduce its vapour pressure by 25%

(1) 83.33g

(2) 111.11g

(3) 18.51g

(4) 45g

37. At 40°C, the vapour pressure of pure liquids, benzene and toluene are 160 mm Hg and 60 mm Hg respectively. At the same temperature, the vapour pressure of an equimolar solution of two liquids, assuming the ideal solution should be

(1) 140 mm Hg (2) 110 mm Hg

(3) 220 mm Hg (4) 100 mm Hg

38. K_H for H_2 (g) / water system is 5.34×10^7 torr. If the partial pressure of H_2 over a solution at 25°C is 760 torr, then determine the solubility of hydrogen. Assume density of H_2O and solutions are same

(1) 6.4×10^{-3} mol L^{-1}

(2) 7.89×10^{-4} mol L^{-1}

(3) 5.9×10^{-3} mol L^{-1}

(4) 8.9×10^{-4} mol L^{-1}

39. An aqueous solution of glucose boils at 100.01°C. Molal elevation constant of water is 0.5 K molality^{-1}. Find number of moles of glucose in 100g water

(1) 1×10^2 mole (2) 1×10^{-2} mole

(3) 2×10^{-3} mole (4) 3×10^{-4} mole

40. Select from the following that has highest osmotic pressure

(1) 0.1 N urea (2) 0.1 N NaCl

(3) 0.1 N Na_2SO_4 (4) 0.1 N Na_3PO_4

41. For a solution containing a non-volatile, non-electrolytic solute the relative lowering in vapour pressure is 0.2. If total number of moles present in the solution is 5, then which of the following is correct ?

(1) Mol fraction of solvent, $X_{solvent} = 0.8$

(2) Mol fraction of solute, $X_{solute} = 0.8$

(3) Number of moles of solute = 4

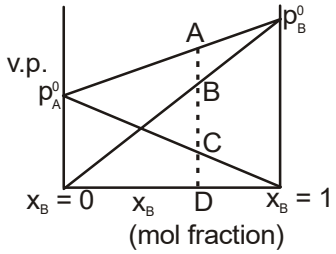
(4) Number of moles of solvent = 2

42. Two pure liquids A and B have vapour pressures in the ratio 1 : 3. The mol fraction of 'A' in vapour phase, when A and B are mixed in 1 : 3 molar ratio in a solution, will be

(1) 0.1 (2) 0.2

(3) 0.3 (4) 0.5

43. Consider the following graph, depicting the variation of total vapour pressure and vapour pressure of components of a solution with mol fraction.



Which of the following is correct regarding the plot?

(1) A is more volatile than B

(2) B will be more in liquid phase starting from equal mole fractions of 'A' and 'B'

(3) AD = BD + CD

(4) AD = BC + CD

44. A gas exerts a partial pressure of 0.2 atm over water. The Henrys' law constant is 10^4 atm. The solubility of the gas in millimol per litre will be approximately

(1) 2.75×10^{-5} (2) 1.1×10^{-3}

(3) 1.1×10^{-5} (4) 2.75×10^{-4}

45. If a saturated solution of potassium nitrate is heated

(1) It becomes unsaturated

(2) It becomes super saturated

(3) It remains saturated

(4) Crystallization occurs

46. If an ideal solution is produced by mixing components A and B, then which of the following is correct?

(1) $\Delta G_{mix} = 0$

(2) $\Delta H_{mix} = 0$

(3) $\Delta G_{mix} = 0$, $\Delta S_{mix} = 0$

(4) $\Delta S_{mix} = 0$

47. For which of the following binary mixtures, $\Delta H_{mix} > 0$?

(1) $C_2H_5Cl + C_2H_5Br$

(2) $C_2H_5OH + CH_3–CO–CH_3$

(3) $H_2O + HNO_3$

(4) $CHCl_3 + CH_3 – CO – CH_3$

48. For a mixture of HCl and water, the following statements are written

(a) The solution exhibits negative deviation from Raoult's law

(b) The solution boils at a temperature higher than those of either components

(c) The solution is an example of maximum boiling azeotrope

The correct statement(s) is/are

(1) (a) and (b) (2) (c) only

(3) (a) and (c) (4) (a), (b) and (c)

49. The ebullioscopic constant for a solvent is 0.5 K $molal^{-1}$. The boiling point of a solution containing 0.05 mole of a non-volatile, non-electrolytic solute in 0.25 kg solvent will increase by

(1) 10 K (2) 1 K

(3) 0.1 K (4) 100 K

50. Which of the following solutions will have highest freezing point ?

(1) 0.1 M KCl (2) 0.1 M $BaCl_2$

(3) 0.1 M $FeCl_3$ (4) 0.1 M $Fe_2(SO_4)_3$

51. In case of osmosis, solvent moves from

(1) Higher vapour pressure region to lower vapour pressure region

(2) Higher concentration to lower concentration

(3) Lower vapour pressure region to higher vapour pressure region

(4) Higher osmotic pressure region to lower osmotic pressure region

52. The vapour pressure of a solution of a non-volatile solute B in solvent A mixed in 2 : 5 molar ratio is 250 mm. Considering ideality, calculate the vapour pressure of a solution prepared by mixing B and A in the ratio 3 : 4

(1) 200 mm of Hg (2) 300 mm of Hg

(3) 150 mm of Hg (4) 375 mm of Hg

53. An equimolar solution of two volatile liquids A (M = 150 g mol^{-1}) and B (M = 200 g mol^{-1}) has vapour pressure 500 torr. If vapour pressure of pure B is 400 torr, the mol fraction of component A in vapour phase is

(1) 0.5 (2) 0.6

(3) 0.3 (4) 0.4

54. Which of the following is true with respect to Henry's law ?

(1) With increase in pressure of the gas, it's solubility increases

(2) It is obeyed by gases at low temperature and high pressure

(3) With increase in temperature the value of Henrys' law constant decreases

(4) All of these

55. For a solution with negative deviations which of the following is true ?

(1) $\Delta G_{mix} < 0$, $\Delta S_{mix} > 0$

(2) $\Delta H_{mix} < 0$, $\Delta V_{mix} < 0$

(3) $\Delta G_{mix} < 0$, $\Delta S_{mix} < 0$

(4) Both (1) and (2)

56. Which of the following binary solutions exhibits negative deviations from Raoult's law ?

(1) Acetone + Ethanol

(2) Pyridine

(3) Acetone + Carbon disulphide

(4) Cyclohexane + Ethanol

57. B.P. of Azeotropic mixture of HNO_3 and H_2O is, (if B.P of HNO_3 is x and B.P of H_2O is y)

(1) greater than y (2) $\frac{x+y}{2}$

(3) Less than x (4) $\frac{y+x}{3}$

58. An element 'X' exists as a polymer X_n. When 3.2 g of X is dissolved in 200 g of a solvent (K_f = 5 K $molal^{-1}$), the freezing point is lowered by 0.125°C. The molecular formula of X_n is (Atomic wt of X = 80)

(1) X_2 (2) X_4

(3) X_8 (4) X_6

59. A 5.25% w/v solution of an unknown solute is isotonic with a 1.5% w/v solution of urea at constant temperature and in the same solvent. Assuming equal densities of both the solution, calculate the molecular mass of the unknown solute

(1) 90 (2) 105

(3) 115 (4) 210

60. Which one is/are correct ?

Statement I : Molar mass of polymer is determined by osmotic pressure Method

Statement II : Mixture of CCl_4 + Toluene is positive deviation solution

Statement III : During formation of positive deviation solution heat is absorbed

Statement IV : Upon addition of $I_2(s)$ in aqeous KI solution, B.P increases

(1) I, III, IV only (2) II, III

(3) I, II, III only (4) I, II, III, IV

61. Which of the following will have the same value of Van't Hoff factor as that of $K_4[Fe(CN)_6]$? (Assume equal degree of dissociation)

(1) Na_2SO_4 (2) $Al(NO_3)_3$

(3) $Al_2(SO_4)_3$ (4) $K_3[Fe(CN)_6]$

62. Calculate the Van't Hoff factor (i) of K_4 $[Fe(CN)_6]$ which is 80% ionised

(1) 1.4 (2) 2.8

(3) 3.2 (4) 4.2

63. Which of the following is not associated with ideal solution?

(1) $\Delta H_{mix} = 0$ (2) $\Delta S_{mix} = 0$

(3) $\Delta V_{mix} = 0$ (4) $\Delta G_{mix} < 0$

64. If P_1 is osmotic pressure of 0.1 M KCl and P_2 is osmotic pressure of 0.1 M acetic acid then

(1) $P_2 > P_1$ (2) $P_1 > P_2$

(3) $P_1 = P_2$ (4) $P_1 = 0$

65. The total vapour pressure of solution obtained by mixing 3 mole of P and 2 mole of Q is 72 torr. The pure vapour pressure of liquid P is 80 torr. The pure vapour pressure of liquid Q is

(1) 80 torr (2) 60 torr

(3) 40 torr (4) 20 torr

66. Which has minimum freezing point?

(1) 1 molar NaCl solution

(2) 1 molar KCl solution

(3) 1 molar glucose solution

(4) 1 molar $CaCl_2$ solution

67. Which of the following is correct?

(1) The solubility of a gas in water increases with increase of temperature

(2) The solubility of a gas in water increases with increase of pressure

(3) Higher the value of K_H at a particular pressure, higher is the solubility of the gas in the liquid

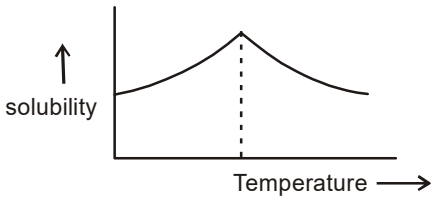
(4) Henry's law is valid if the gas reacts chemically with the solvent and dissociates or associates in the solvent

68. 5 mol of solvent along with 2 mol of a non-volatile solute exhibit vapour pressure = 250 mm μg. If we make a mixture containing 4 mol of the same solvent and 3 mol of the same solute, then what would be vapour pressure now?

(1) 300 mm μg (2) 200 mm μg

(3) 225 mm μg (4) 275 mm μg

69. The following plot best represents



(1) NaCl (2) $NaNO_3$

(3) $Na_2SO_4.10H_2O$ (4) $CaCl_2$

70. Which of the following combinations is correct for a binary solution ?

(1) C_6H_6 and $C_6H_5CH_3$; $\Delta_{sol}H > 0$; $\Delta_{sol}V = 0$

(2) $CH_3-\overset{\overset{O}{\|}}{C}-CH_3$ and $CHCl_3$; $\Delta_{sol}H < 0$; $\Delta_{sol}V < 0$

(3) H_2O and HCl ; $\Delta_{sol}H > 0$; $\Delta_{sol}V < 0$

(4) H_2O and CH_3OH ; $\Delta_{sol}H < 0$; $\Delta_{sol}V < 0$

71. The depression in freezing point of 0.01m aqueous CH_3COOH solution is 0.02046°. 1m urea solution freezes at –1.86°C. Assuming molality equal to molarity, pH of CH_3COOH solution is

(1) 2 (2) 3

(3) 3.2 (4) 4.2

72. Choose the correct statement

(1) Calcium acetate shows decrease in solubility with rise in temperature

(2) Solubility of KNO_3, $NaNO_3$ decreases with rise in temperature

(3) Solubility of gases increases with increase in temperature

(4) Vapour pressure depends on volume of the vessel in which liquid - vapour equilibrium is established.

73. An aqueous solution freezes at $-0.186°C$ ($K_f = 1.86\,K\,kg\,mol^{-1}$, $K_b = 0.512\,K\,kg\,mol^{-1}$). The elevation of boiling point of the solution is (in K)

(1) 0.186 (2) 0.512

(3) $\frac{0.512}{1.86}$ (4) 0.0512

74. Osmotic pressure of a sucrose solution is 4.926 atm at 27°C. Which of the following is not isotonic with the given solution ?

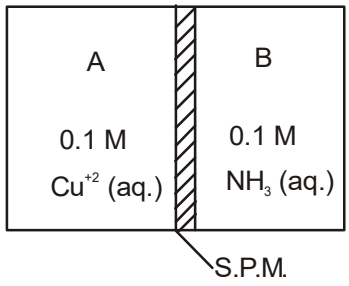
(1) 3.6% glucose solution

(2) 1.2% urea solution

(3) 0.585% NaCl solution

(4) 1.7% $NaNO_3$ solution

75.



In which of the following compartment, Blue colour of $[Cu(NH_3)_4]^{2+}$ will be observed first ?

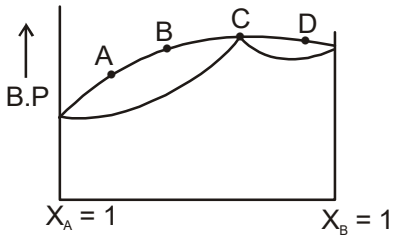
(1) A compartment

(2) B compartment

(3) Blue colour will be observed at same time in both compartment

(4) None of these compartment shows blue colour

76.



Which of the following point represents Azeotropic Mixture concentration ?

(1) A (2) B

(3) C (4) D

77. $nA \rightleftharpoons A_n$

if α is the degree of association, what will be the value of van't Hoff factor (i) ?

(1) $1 + (n - 1)\alpha$ (2) 1

(3) $1-\alpha+\frac{\alpha}{n}$ (4) $1-\alpha$

78. What will be the osmotic pressure of 0.2 MHX (aq.) solution at 300K ? $[K_a(HX) = 8 \times 10^{-5}]$

(1) 3.926 atm (2) 5.024 atm

(3) 7.124 atm (4) 1.813 atm

79. According to Henry's law, the solubility of a gas in a given volume of liquid increasing with increase in

(1) Temperature (2) Pressure

(3) Henry Constant (K_H) (4) Both (1) and (2)

80. Which of the following property will have the same sign of value for ideal solution and solution showing the deviation ? $[K_b(H_2O) = 0.52$ K kg $mol^{-1}]$

(1) ΔG_{mix}, ΔH_{mix}, ΔS_{mix} (2) ΔV_{mix}, ΔS_{mix}

(3) ΔS_{mix}, ΔG_{mix} (4) ΔV_{mix}, ΔG_{mix}

81. 0.1 Molal aqueous solution of an electrolyte AB_3 is 90% ionized. The boiling point of solution at 1 atm is $[K_b(H_2O) = 0.52K.kg.mol^{-1}]$

(1) 273.19K (2) 274.92K

(3) 374.92K (4) 373.19K

82. 24 g of $C_2O_2H_4$ is dissolved in 100 g water, in order to produce ice, mixture is cooled to –10°C, if $K_f = 1.86$, the amount of ice (in g) separated

(1) 25.6 (2) 50.5

(3) 75.6 (4) 20.8

83. The total vapour pressure of a solution of methanol and ethanol in an ideal solution is given by $P = 135\alpha + 100$ (where α = mole fraction of methanol). Pure state vapour pressure of methanol is

(1) 235 mm μg (2) 100 mm μg

(3) 35 mm μg (4) 135 mm μg

84. Henry's constant for Ar is 40 kbar in water. Then molal concentration of Ar in water kept at 10 bar pressure will be :

(1) 0.09 (2) 0.05

(3) 1.25 (4) 0.014

85. A mixture of benzene and toluene have a vapour pressure of 290 mm of Hg at 300K. The vapour pressure of toluene is 200 mm of Hg. If the mole fraction of benzene is 0.6 then its vapour pressure in pure form at same temperature will be

(1) 700 mm of Hg

(2) 300 mm of Hg

(3) 350 mm of Hg

(4) 200 mm of Hg

86. Which one pair of compounds will exhibit +ve deviation from Raoult's law ?

(1) $H_2O + HNO_3$

(2) $(CH_3)_2CO + CHCl_3$

(3) $C_2H_5OH + H_2O$

(4) $CH_3COOH + C_5H_5N$ (Pyridine)

87. Elevation of boiling point was found to be 0.52°C. When 8g of a compound (Nonvolatile, Nonelectrolyte) was dissolved in 200g of water then molar mass of the compound will be : [Given : $K_b(H_2O)$: 0.52 Kkg mol^{-1}]

(1) 50 (2) 100

(3) 40 (4) 30

88. Which of the following aqueous solution is having highest freezing point ? [Assume : Molarity ≈ Molality]

(1) 0.01 (M) KCl

(2) 0.005 (M) $CaCl_2$

(3) 0.01 (M) Na_2SO_4

(4) 0.005 (M) Glucose

❑ ❑ ❑

CPP-02
ONE YEAR
MEDICAL

ANSWERS

1.	(4)	2.	(2)	3.	(2)	4.	(3)	5.	(4)	6.	(3)	7.	(4)
8.	(1)	9.	(1)	10.	(2)	11.	(3)	12.	(3)	13.	(1)	14.	(3)
15.	(1)	16.	(3)	17.	(1)	18.	(3)	19.	(2)	20.	(4)	21.	(4)
22.	(4)	23.	(4)	24.	(4)	25.	(4)	26.	(4)	27.	(4)	28.	(1)
29.	(2)	30.	(4)	31.	(4)	32.	(1)	33.	(2)	34.	(1)	35.	(1)
36.	(2)	37.	(2)	38.	(2)	39.	(3)	40.	(2)	41.	(1)	42.	(1)
43.	(3)	44.	(2)	45.	(1)	46.	(2)	47.	(2)	48.	(4)	49.	(3)
50.	(1)	51.	(1)	52.	(1)	53.	(2)	54.	(1)	55.	(4)	56.	(2)
57.	(1)	58.	(3)	59.	(4)	60.	(3)	61.	(3)	62.	(4)	63.	(2)
64.	(2)	65.	(2)	66.	(4)	67.	(2)	68.	(2)	69.	(3)	70.	(2)
71.	(2)	72.	(1)	73.	(4)	74.	(4)	75.	(4)	76.	(3)	77.	(3)
78.	(2)	79.	(2)	80.	(3)	81.	(4)	82.	(1)	83.	(1)	84.	(4)
85.	(3)	86.	(3)	87.	(3)	88.	(4)