Chapter 01 Solution

NEET-RANKER'S STUFF

Q.1 At a given temperature, total vapour pressure in Torr of mixture of volatile components A and B is given by

$P = 120 - 75\ X_B$

hence, vapour pressure of pure A and B respectively (in Torr) are -

(1) 120, 75 (2) 12, 195
(3) 120, 45 (4) 75, 45

Q.2 Decimolar solution of potassium ferricyanide, $K_3[(Fe(CN)_6]$ has osmotic pressure of 3.94 atm at 27°C. Hence percent ionization of the solute is

(1) 10% (2) 20%
(3) 30% (4) 40%

Q.3 If $pK_a = -\log K_a = 4$, and $K_a = C\alpha^2$ then Van't Hoff factor for weak monobasic acid when C = 0.01 M is

(1) 0.01 (2) 1.02
(3) 1.10 (4) 1.20

Q.4 pH of 1M HA (weak acid) is 2. Hence van't Hoff factor is -

(1) 1.2 (2) 1.02
(3) 1.1 (4) 1.01

Q.5 An azeotropic solution of two liquids has boiling point lower that either when it -

(1) Shows a negative deviation from Raoult's law
(2) Shows a positive deviation from Raoult's law
(3) Shows no deviation from Raoult's law
(4) is saturated

Q.6 100 ml of liquid A and 25 ml of liquid B is mixed to give a solution which does not obey Raoult's law, The volume of the solution -

(1) will be 125 ml
(2) can > or < than 125 ml
(3) can be greater than, equal to or less than 125 ml
(4) will be less than 125 ml

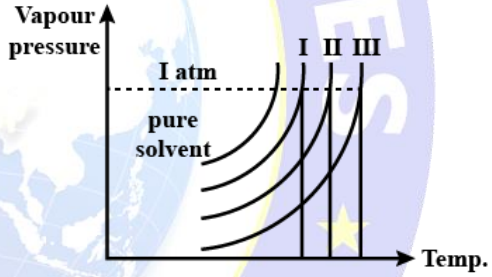
Q.7 When mango is placed in dilute aqueous solution of hydrochloride acid, it -

(1) Shrinks (2) Swells
(3) Bursts (4) Nothing happens

Q.8 0.1 M KI & 0.2 $AgNO_3$ are mixed in 3 : 1 vol. ratio. The depression of freezing point of resulting solution will be $[K_f(H_2O) = 1.86 \frac{K.kg}{mol}]$

(1) 3.72 K (2) 1.86 K
(3) 0.93 K (4) 0.279 K

Q.9 The V.P. curve of same solution in the same solvent are shown. The curves are parallel to each other & do not intersect. The conc. of solution are in order of –



(1) I < II < III (2) I = II = III
(3) I > II > III (4) I > III > II

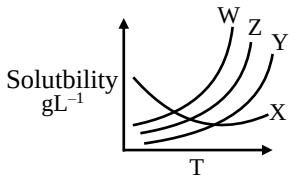
Q.10 For an aqueous solution, freezing point is – 0.186°C. Boiling point of the same solution is (K_f = 1.86°K mol^{-1} kg) and (k_b = 0.512°K mol^{-1} kg)

(1) 0.186° (2) 0.0512°
(3) 1.86° (4) 5.12°

Q.11 Aqeous solutions of 0.004 M Na_2SO_4 and 0.01 M Glucose are isotonic. The degree of dissociation of Na_2SO_4 is -

(1) 25% (2) 60% (3) 75% (4) 85%

Q.12 Solubility curves four ionic salts X, Y, Z, W are given below –



In which case the value of $\Delta H_{sol} < 0$

(1) X (2) Y (3) Z (4) W

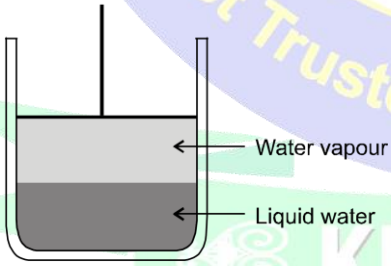
Q.13 $PtCl_4.6H_2O$ can exist as a hydrated complex 1 molal aq. solution has depression in freezing point of 3.72°. Assume 100% ionisation and $K_f(H_2O) = 1.86°\ mol^{-1}\ kg$, then complex is –
(1) $[Pt(H_2O)_6]Cl_4$
(2) $[Pt(H_2O)_4Cl_2]Cl_2.2H_2O$
(3) $[Pt(H_2O)_3Cl_3]Cl.3H_2O$
(4) $[Pt(H_2O)_2Cl_4].4H_2O$

Q.14 A 500 g tooth paste sample has 0.02 g fluoride concentration. What is the concentration of fluorine in terms of ppm level?
(1) 250 (2) 40 (3) 400 (4) 1000

Q.15 15 gram of methyl alcohol is dissolved in 35 gram of water. What is the mass percentage of methyl alcohol in solution?
(1) 30% (2) 50%
(3) 70% (4) 75%

Q.16 At higher altitudes, water boils at temperature < 100°C because
(1) temperature of higher altitudes is low
(2) atmospheric pressure is low
(3) the proportion of heavy water increases
(4) atmospheric pressure becomes more.

Q.17 The vapour pressure of water at 20°C is 17.54 mmHg. What will be the vapour pressure of the water in the apparatus shown after the piston is lowered, decreasing the volume of the gas above the liquid to one half of its initial volume (assume temperature constant).



(1) 8.77 mmHg
(2) 17.54 mmHg
(3) 35.08 mmHg
(4) between 8.77 and 17.54 mmHg

Q.18 Which of the following relation represents the Henry's law?
(1) $P = K_H X$ (2) $P = K_H$
(3) (1) and (2) (4) None of these

Q.19 The solubility of $N_2(g)$ in water exposed to the atmosphere, when the partial pressure is 593 mm is 5.3×10^{-4} M. Its solubility at 760 mm and at the same temperature is:
(1) 4.1×10^{-4} M (2) 6.8×10^{-4} M
(3) 1500 M (4) 2400 M

Q.20 At 323 K, the vapour pressure in millimeters of mercury of a methanol-ethanol solution is represented by the equation $p = 120\ X_A + 140$, where X_A is the mole fraction of methanol. Then the value of $\lim_{x_A \to 1} \frac{p_A}{X_A}$ is
(1) 250 mm (2) 140 mm
(3) 260 mm (4) 20 mm

Q.21 An aqueous solution containing 28% by mass of a liquid A(mol. mass = 140) has a vapour pressure of 160 mm at 37^0C. Find the vapour pressure of the pure liquid A. (The vapour pressure of water at 37^0C is 150 mm).
(1) 360 mm (2) 150 mm
(3) 160 mm (4) None of these

Q.22 At 88°C benzene has a vapour pressure of 900 torr and toluene has a vapourprssure of 360 torr. What is the mole fraction of benzene in the mixture with toluene that will boil at 88°C at 1 atm pressure benzene - toluene form an ideal solution:
(1) 0.416 (2) 0.588
(3) 0.688 (4) 0.740

Q.23 Two liquids A and B form an ideal solution at temperature T. When the total vapour pressure above the solution is 400 torr, the mol fraction of A in the vapour phase is 0.4 and in the liquid phase 0.75. What are the vapour pressure of pure A?
(1) P_A° = 213.33 torr (2) P_A° = 216.32 torr
(3) P_A° = 219.35 torr (4) P_A° = 209.33 torr

Q.24 Total vapour pressure of mixture of 1 mol A (P_A^0 =150 torr) and 2 mol B (P_B^0 =240 torr) is 200 torr. In this case:
(1) there is positive deviation from Raoult's law
(2) there is negative deviation from Raoult's law
(3) there is no deviation from Raoult's law
(4) molecular masses of A and B are also required for calculating the deviation

Q.25 For the given electrolyte A_xB_y, the degree of dissociation 'α' can be given as

(1) $\alpha = \frac{i-1}{x+y-1}$ (2) $i = (1-\alpha) + x\alpha + y\alpha$

(3) $\alpha = \frac{1-i}{1-x-y}$ (4) All of these

Q.26 The experimental molecular weight of an electrolyte will always be less than its calculated value because the value of vant Hoff factor, 'i' is:

(1) Less than 1 (2) Greater than 1
(3) One (4) Zero

Q.27 If α is the degree of dissociation of Na_2SO_4, the vant Hoff's factor (i) used for calculating the molecular mass is

(1) $1 + \alpha$ (2) $1 - \alpha$ (3) $1 + 2\alpha$ (4) $1 - 2\alpha$

Q.28 Relative lowering in vapour pressure of a solution containing 1 mole K_2SO_4 in 54 g H_2O is: (K_2SO_4 is 100% ionised)

(1) $\frac{1}{55}$ (2) $\frac{3}{55}$ (3) $\frac{3}{4}$ (4) $\frac{1}{2}$

Q.29 The vapour pressure of pure benzene, C_6H_6 at 50°C is 268 Torr. How many moles of non-volatile solute per mol of benzene is required to prepare a solution of benzene having a vapour pressure of 167 Torr at 50°C?

(1) 0.377 (2) 0.605 (3) 0.623 (4) 0.395

Q.30 Moles of K_2SO_4 to be dissolved in 12 mol water to lower its vapour pressure by 10 mmHg at a temperature at which vapour pressure of pure water is 50 mm is:

(1) 3 mol (2) 2 mol (3) 1 mol (4) 0.5 mol

Q.31 Three solutions of HCl having normality 12 N, 6 N and 2 N are mixed to obtain a solutions of 4 N normality. Which among the following volume ratio is correct for the above three components?

(1) 1 : 1 : 5 (2) 1 : 2 : 6
(3) 2 : 1 : 9 (4) 1 : 2 : 4

Q.32 1.0 molal aqueous solution of an electrolyte X_3Y_2 is 25% ionized. The boiling point of the solution is (K_b for H_2O = 0.52 K kg/mol)

(1) 375.5 K (2) 374.04 K
(3) 377.12 K (4) 373.25 K

Q.33 Which of the following has been arranged in order of decreasing freezing point?

(1) 0.05 M KNO_3> 0.04 M $CaCl_2$> 0.140 M sugar > 0.075 M $CuSO_4$
(2) 0.04 M $BaCl_2$> 0.140 M sucrose > 0.075 M $CuSO_4$> 0.05 M KNO_3
(3) 0.075 M $CuSO_4$> 0.140 M sucrose > 0.04 M $BaCl_2$> 0.05 M KNO_3
(4) 0.075 M $CuSO_4$> 0.05 M $NaNO_3$> 0.140 M sucrose > 0.04 M $BaCl_2$

Q.34 A solution containing 4g of polyvinyl chloride in 1 litre of dioxane was found to have an osmotic pressure of 6×10^{-4} atm at 300K. The molecular mass of polymer is:

(1) 3×10^3 (2) 1.6×10^5
(3) 5×10^4 (4) 6.4×10^2

Q.35 Mixture of volatile components A and B has total vapour pressure (in Torr) $p = 254 - 119\ x_A$ where x_A is mole fraction of A in mixture. Hence p_A^0 and p_B^0 are (in Torr):

(1) 254, 119 (2) 119, 254
(3) 135, 254 (4) 119, 373

Q.36 If vapour pressures of pure liquids 'A' & 'B' are 300 and 800 torr respectively at 25°C. When these two liquids are mixed at this temperature to form a solution in which mole percentage of 'B' is 92, then the total vapour pressure is observed to be 0.95 atm. Which of the following is true for this solution?

(1) $\Delta V_{mix} > 0$ (2) $\Delta H_{mix} < 0$
(3) $\Delta V_{mix} = 0$ (4) $\Delta H_{mix} = 0$

Q.37 Y g of non-volatile organic substance of molecular mass M is dissolved in 250 g benzene. Molal elevation constant of benzene is K_b. Elevation in its boiling point is given by:

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

Q.38 6.02×10^{20} molecules of urea are present in 100 ml of its solution. The concentration of urea solution is:

(1) 0.001 M (2) 0.01 M
(3) 0.02 M (4) 0.1 M.

Q.39 pH of 0.1 M monobasic acid is measured to be 2. Its osmotic pressure at a given temperature T K is

(1) 0.1 RT (2) 1.1 RT
(3) 0.11 RT (4) 0.01 RT

Q.40 Benzene and toluene form nearly ideal solutions. At 20°C, the vapour pressure of benzene is 75 torr and that of toluene is 22 torr. The partial vapour

pressure of benzene at 20 °C for a solution containing 78 g of benzene and 46 g of toluene in torr is:
(1) 50 (2) 25 (3) 37.5 (4) 53.5

Q.41 A 5.25% solution of a substance is isotonic with a 1.5% solution of urea (molar mass = 60 g mol^{-1}) in the same solvent. If the densities of both the solutions are assumed to be equal to 1.0 g cm^{-3}, molar mass of the substance will be
(1) 105.0 g mol^{-1} (2) 210.0 g mol^{-1}
(3) 90.0 g mol^{-1} (4) 15.0 g mol^{-1}

Q.42 The vapour pressure of acetone at 20°C is 185 torr. When 1.2 g of a non-volatile substance was dissolved in 100 g of acetone at 20°C, its vapour pressure was 183 torr. The molar mass (g mol^{-1}) of the substance is:
(1) 32 (2) 64
(3) 128 (4) 488

Q.43 A solution is prepared by mixing 8.5 g of CH_2Cl_2 and 11.95 g of $CHCl_3$. If vapour pressure of CH_2Cl_2 and $CHCl_3$ at 298 K are 415 and 200 mmHg respectively, the mole fraction of $CHCl_3$ in vapour form is: (Molar mass of Cl = 35.5 g mol^{-1})
(1) 0.675 (2) 0.162 (3) 0.486 (4) 0.325

Q.44 The van't Hoff factor for 0.1 M $Ba(NO_3)_2$ solution is 2.74. The degree of dissociation is:
(1) 91.3% (2) 87%
(3) 100% (4) 74%

Q.45 A 0.004 M solution of Na_2SO_4 is isotonic with 0.010 M solution of glucose at same temperature. The apparent percentage dissociation of Na_2SO_4 is:
(1) 25% (2) 50% (3) 75% (4) 85%

Q.46 An X molal solution of a compound in benzene has mole fraction of solute equal to 0.2. The value of X is:
(1) 14 (2) 3.2 (3) 1.4 (4) 2

Q.47 0.7 g of Na_2CO_3. xH_2O is dissolved in 100 ml, 20 ml of which required 19.8 ml of 0.1 N HCl. The value of x is:
(1) 4 (2) 3 (3) 2 (4) 1

Q.48 Two bottles of A and B contains 1M and 1m aqueous solutionof sulphuric acid respectively:
(1) A is more concentrated than B
(2) B is more concentrated than A
(3) Concentration of A = conc. of B
(4) It is not possible to compare the concentration

Q.49 Molar concentration of a solution in water is:
(1) Always equal to normality
(2) More than molality of the solution
(3) Equal to molality of the solution
(4) Less than the molality of the solution

Q.50 An ideal solution was obtained by mixing methanol and ethanol. If the partial vapour pressure of methanol and ethanol are 2.619 K Pa and 4.556 K Pa respectively, the composition of vapour (in terms of mole fraction) will be:
(1) 0.635 MeOH, 0.365 EtOH
(2) 0.365 MeOH, 0.635 EtOH
(3) 0.574 MeOH, 0.326 EtOH
(4) 0.173 MeOH, 0.827 EtOH

Q.51 The vapour pressure of pure benzene and toluene are 160 and 60 torr respectively. The mole fraction of toluene in vapour phase in contact with equimolar solution of benzene and toluene is:
(1) 0.50 (2) 0.6 (3) 0.27 (4) 0.73

Q.52 Insulin $(C_2H_{10}O_5)_n$ is dissolved in a suitable solvent and the osmotic pressure (π) of solutions of various concentrations (g/cm^3) C is measured at 20 °C. The slope of a plot of π against C is found to be 4.65×10^{-3}. The molecular weight of the insulin is :
(1) 4.8×10^5 (2) 9×10^5
(3) 3×10^5 (4) 5.16×10^6

Q.53 The boiling point of an aqueous solution of a non-volatile solute is 100.15 °C. What is the freezing point of an aqueous solution obtained by diluting the above solution with an equal volume of water? The values of K_b and K_f for water are 0.512 and 1.86 K molality^{-1}:
(1) –0.544 °C (2) –0.512 °C
(3) –0.272 °C (4) –1.86 °C

Q.54 How many grams of a non volatile solute having a molecular weight of 90 are to be dissolved in 97.5 g water in order to decrease the vapour pressure of water by 2.5 percent:
(1) 25 (2) 18 (3) 12.5 (4) 9

Q.55 A 0.2 molal aqueous solution of a weak acid (HX) is 20% ionised. The freezing point of this solution is : (Given : K_f = 1.86°C/m for water)
(1) – 0.31°C (2) – 0.45°C
(3) – 0.53°C (4) – 0.90°C

Q.56 The average osmotic pressure of human blood is 7.8 bar at 37°C. What is the concentration of an

aqueous NaCl solution that could be used in the blood stream:
(1) 0.16 mol/L (2) 0.32 mol/L
(3) 0.60 mol/L (4) 0.45 mol/L

Q.57 The mole fraction of the solute in one molal aqueous solution is :
(1) 0.027 (2) 0.036
(3) 0.018 (4) 0.009

Q.58 A solution of urea (mol. mass 56 g mol^{-1}) boils at 100.18°C at the atomospheric pressure. If K_f and K_b for water are 1.86 and 0.512K kg mol^{-1} respectively, the above solution will freeze at:
(1) –6.54°C (2) –0.654°C
(3) 6.54°C (4) 0.654°C

Q.59 A solution has a 1 : 4 mole ratio of pentane to hexane. The vapour pressures of the pure hydrocarbons at 20°C are 440 mmHg for pentane and 120 mmHg for hexane. The mole fraction of pentane in the vapour phase would be :
(1) 0.200 (2) 0.478 (3) 0.549 (4) 0.786

Q.60 The degree of dissociation (α) of a weak electrolyte, A_xB_y is related to van't Hoff factor (i) by the expression :

(1) $\alpha = \frac{x + y - 1}{i - 1}$

(2) $\alpha = \frac{x + y + 1}{i - 1}$

(3) $\alpha = \frac{i - 1}{(x + y - 1)}$

(4) $\alpha = \frac{i - 1}{x + y + 1}$

Q.61 Ethylene glycol is used as an antifreeze in a cold climate. Mass of ethylene glycol which should be added to 4 kg of water to prevent it from freezing at – 6°C will be :
(K_f for water = 1.86 K $kgmol^{-1}$, and molar mass of ethylene glycol = 62 $gmol^{-1}$)
(1) 400.00 g (2) 304.60 g
(3) 804.32 g (4) 204.30 g

Q.62 The molality of a urea solution in which 0.0100g of urea, $[(NH_2)_2CO]$ is added to 0.3000 dm^3 of water at STP is :
(1) 0.555 m (2) 5.55×10^{-4} m
(3) 33.3 m (4) 3.33×10^{-2} m

Q.63 K_f for water is 1.86 K kg mol^{-1}. If your automobile radiator holds 1.0 kg of water, how many grams of ethylene glycol ($C_2H_6O_2$) must you add to get the freezing point of the solution lowered to –2.8°C?
(1) 27 g (2) 72 g (3) 93 g (4) 39 g

Q.64 Which of the following solution will have highest freezing point?
(1) 2 M NaCI (2) 1.5 M $AlCl_3$
(3) 1M $AI_2(SO_4)3$ (4) 3M urea

Q.65 A solution containing 28 g phosphorus in 315 gm CS_2 (b.p. = 46.3°C) boils at 47.98°C(K_b for CS_2 is 2.34). What will be the molecular formula of phosphorus (Assume complete association)?
(1) P_4 (2) P_3
(3) P_2 (4) None of these

Q.66 An aqueous solution contains 5% and 10% of urea and glucose respectively (by wt.). If K_f for water is 1.86, the freezing point of solution is :
(1) 1.40 K (2) 1.40°C
(3) –3.03°C (4) –3.03 K

Q.67 Consider the following statements:
(i) Osmotic pressure method is the most useful method to determining the molecular weight of macromolecules.
(ii) The molecular weight of the macromolecules does not change in presence of an electrolyte in the solution.
(iii) Colligative properties are helpful to determine moleculer weight of macromolecules.
(iv) Chloroform - Acetone is a negative deviation azeotropic mixtures.
Which of the above statement is/are correct?
(1) i (2) i, ii, iii
(3) ii, iii (4) ii, iv

Q.68 Which of the following statement is/are correct?
(i) For ideal solution (Van't Hoff factor), i = 1
(ii) For non-electrolyte, i = 1
(iii) For electrolyte undergoing dissociation, i > 1
(iv) For electrolyte undergoing association, i < 1
Correct option is :-
(1) ii (2) iii, iv
(3) i, ii, iii (4) All of these

Q.69 Which of the following is correct for an ideal solution?

(i) $\Delta G_{mix} = 0$ and $\Delta H_{mix} > 0$
(ii) $\Delta H_{mix} = 0$ and $\Delta V_{mix} = 0$
(iii) $\Delta V_{mix} = 0$ and $\Delta S_{mix} > 0$
(iv) $\Delta H_{mix} > 0$ and $\Delta S_{mix} > 0$
Correct option is :
(1) i, ii, iii (2) ii, iii (3) i, ii, iv (4) i, ii, iii, iv

Q.70

	Column-I		Column-II
(A)	π_1: 0.1 M glucose; π_2 : 0.1 M urea	(P)	π_1 and π_2 are isotonic
(B)	π_1: 0.1 M NaCl; π_2 : 0.1 M Na_2SO_4	(Q)	No net migration of solvent across the membrane
(C)	π_1: 0.1 M NaCl; π_2: 0.1 M KCl	(R)	π_1 is hypertonic to π_2
(D)	π_1: 0.1 M $CuSO_4$: π_2: 0.1 M sucrose	(S)	π_1 is hypotonic to π_2

(1) A → Q, P; B → S; C → P, R, Q; D → Q;
(2) A → S, Q; B → P; C → P, R; D → S;
(3) A → P, Q; B → S; C → P, Q; D → R;
(4) A → Q, P; B → R; C → S, Q; D → R;

Q.71

	Column-I		Column-II
(A)	0.1 M $Al_2(SO_4)_3$	(P)	Solution with highest boiling point.
(B)	0.1 M $AlPO_4$	(Q)	Van't Hoff factor is greater than 1
(C)	0.1 M urea	(R)	Solution with lowest osmotic pressure
(D)	0.1 M $MgCl_2$	(S)	Solution with lowest freezing point

(1) A → P, Q; B → Q; C → R, S; D → P;
(2) A → S, Q; B → P; C → P, Q; D → S;
(3) A → P, Q, S; B → Q; C → R; D → Q;
(4) A → Q, Q; B → S; C → P, Q; D → P;

ASSERTION & REASON TYPE QUESTIONS

Each question contains Assertion and Reason. Each question has the 4 choices (A), (B), (C) and (D) out of which **ONLY ONE** is correct.

(A) Assertion is True, Reason is True; Reason **is** correct explanation for Assertion
(B) Assertion is True, Reason is True; Reason **is not** correct explanation for Assertion
(C) Assertion is True, Reason is False
(D) Assertion is False, Reason is True

Q.72 **Assertion :** The boiling point of 0.1 M urea solution is less than that of 0.1 M KCl solution.
Reason : Elevation of boiling point is directly proportional to the number of species present in the solution.
(1) A (2) B (3) C (4) D

Q.73 **Assertion :** The difference in the boiling points of equimolar solution of HCl and HF decreases as their molarity is decreased
Reason : The extent of dissociation decreases steadily with increasing dilution
(1) A (2) B (3) C (4) D

Q.74 **Assertion :** The mass of acetic acid molecule in benzene is more than the actual value of the solute.
Reason : Molecules of acetic acid dimerise in benzene due to hydrogen bonding.
(1) A (2) B (3) C (4) D

Q.75 **Assertion :** Azeotropic mixture are formed only by nonideal solution and they may have boiling points either greater than both the components or less than both the components.
Reason : The composition of the vapour phase is same as that of the liquid phase of an azeotropic mixture.
(1) A (2) B (3) C (4) D

Q.76 **Assertion :** The water pouch of instant cold pack for treating athletic injuries breaks when squeezed and NH_4NO_3 dissolves lowering point of temperature.
Reason : Addition of non-volatile solute into solvent result in depression of freezing point solvent.
(1) A (2) B (3) C (4) D

Q.77 **Assertion :** ΔH_{mix} and ΔV_{mix} in an ideal solution are zero.
Reason : $A - B$ interactions in ideal solutions are same as between A - B and B - B
(1) A (2) B (3) C (4) D

Q.78 **Assertion :** On adding NaCl to water its vapour pressure increase
Reason : Addition of non-volatile solute decreases the vapour pressure
(1) A (2) B (3) C (4) D

Q.79 **Assertion :** The elevation in boiling point of a solution of non-electrolyte is proportional to its molality
Reason : The molal elevation constant is the ratio of the elevation in boiling point to its molality
(1) A (2) B (3) C (4) D

Q.80 **Assertion :** If red blood cells were removed from the body and placed in pure water pressure inside the cells increase.
Reason : The concentration of salt content in the cells increase.
(1) A (2) B (3) C (4) D

Q.81 **Assertion :** One molar aqueous solution has always higher concentration than one molal
Reason : The molality of a solution depends upon the density of the solution whereas molarity does not.
(1) A (2) B (3) C (4) D

ANSWER KEY

NEET-RANKER'S STUFF

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