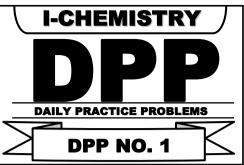
TARGET: NEET (UG) 2024

Course: SARANSH (Youtube Live CRASH COURSE)



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	Physical (Chemistry : So	lutions and Coll	igative Properties	
1.	DPP No. : 1 P_A and P_B are the vapour pressure of pure liquid components, A and B, respectively of an ideal binary				
	solution. If X_A represents the mole fraction of component A, the total pressure of the solution will be.				
	(1) $P_A + X_A (P_B - P_A)$ (2) $P_A + X_A (P_A - P_B)$				<i>'</i> .
	(3) $P_B + X_A (P_B - P_A)$		(4) $P_B + X_A (P_A - P_A)$,	
2.	Of the following 0.10m aqueous solutions, which one will exhibit the largest freezing point depression?				
	(1) KCI		(2) C ₆ H ₁₂ O ₆		
	(3) Al ₂ (SO ₄) ₃		(4) K ₂ SO ₄		
3.	Which one of the following electrolytes has the same value of van't Hoff's factor(i) as that of Al ₂ (SO ₄) ₃ (if all are 100% ionised) ?				
		u) ?	(2) AI(NO ₂) ₂		
	(1) K ₃ [Fe(CN) ₆] (3) K ₄ [Fe(CN) ₆]		(2) Al(NO ₃) ₃ (4) K ₂ SO ₄		
4.	The boiling point of 0.2 mol kg ⁻¹ solution of X in water is greater than equimolal solution of Y in water.				
	Which one of the following statements is true in this case?				
	(1) Molecular mass of X is greater than the molecular mass of Y.				
	(2) Molecular mass of X is less than the molecular mass of Y.				
	(3) Y is undergoing dissociation in water while X undergoes no change.				
	(4) X is undergoing dissociation in water.				
5.	Which one is not equal to zero for an ideal solution?				
	(1) ΔS_{mix}	(2) ΔV_{mix}	(3) $\Delta P = P_{\text{observed}}$	ı — P _{राउल्ट} (4) ∆H _{mix}	
6.	The van't Hoff factor (i) for a dilute aqueous solution of the strong electrolyte barium hydroxide is				
	(1) 3	(2) 0	(3) 1	(4) 2	
7.	Which one of the following is incorrect for ideal solution?				
	(1) $\Delta G_{\text{mix}} = 0$		(2) $\Delta H_{\text{mix}} = 0$		
	(3) $\Delta U_{\text{mix}} = 0$		(4) $\Delta P = P_{\text{obs}} -$	Pcalculated by Raoult's law = 0	
8.	If molality of the dilute solution is doubled, the value of molal depression constant (K _f) will be :				

(2) halved

(1) doubled

(3) tripled

(4) unchanged

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9. The mixture that forms maximum boiling azeotrope is :

(1) Heptane + Octane

(2) Water + Nitric acid

(3) Ethanol + Water

(4) Acetone + Carbon disulphide

10. For an ideal solution, the correct option is:

(1) Δ_{mix} G = 0 at constant T and P

(2) Δ_{mix} S = 0 at constant T and P

(3) $\Delta_{mix} V \neq 0$ at constant T and P

(4) $\Delta_{mix} H = 0$ at constant T and P

Answer Key

1.

(4) 2. (3)

(3)

3.

(4)

(1)

6.

(1)

7. (1)

(4) 8. 9. (2) 10. (4)