

ECAT Chemistry Chapter 9 Solutions Online Test

Sr	Questions	Answers Choice
1	Equal volumes of ethylene glycol (molar mass = 62) and water (molar mass = 18) are mixed. The depression in freezing point of water is (given K_r of water = 1.86 K mol ⁻¹ kg and specific gravity of ethylene glycol is 1.11)	A. 0.003 B. 3.33 C. 0.333 D. 33.3
2	As compared to molar solution, in the molal solution the quantity of solvent is :	A. Comparatively lesser B. More or less equal C. Comparatively greater D. Very large
3	How many cm ³ of 1 M H ₂ SO ₄ required to neutralize 10 cm ³ of 1 M NaOH	A. 2 cm ³ B. 2.5 cm ³ C. 5 cm ³ D. 10 cm ³
4	0.5 M of H ₂ SO ₄ is diluted from 1 litre to 10 litre, normality of resulting solution is	A. 1 N B. 0.1 N C. 10 N D. 11 N
5	The relative lowering of vapour pressure is equal to the mole fraction of the solute is statement of	A. Rault law B. Henry law C. Dalton law D. Grahms law
6	Colligative properties are the properties of :	A. Dilute solutions which behave as nearly ideal solutions. B. Concentrated solutions which behave as nearly non-ideal solutions. C. Both(i) and (ii) D. Neither (i) nor (ii)
7	Which of the following mixture of liquids show negative deviation form Raults law	A. Ethyl alcohol and ether B. HCl and water C. Phenol- water D. Chlorobenene-bromobenene
8	If 5.85 g of NaCl are dissolved in 90 g of water, the mole fraction of NaCl is	A. 0.1 B. 0.01 C. 0.2 D. 0.0196
9	Hydrochloric acid available in the laboratory is 36% w/w. The density of HCl solution is 1.19 g cm ⁻³ . The molarity of HCl solution is	A. 10.23 moles dm ⁻³ B. 11.55 moles dm ⁻³ C. 11.73 moles dm ⁻³ D. 12.67 moles dm ⁻³
10	The number of moles of NH ₄ Cl dissolved in 500 cm ³ of its 15%, W/N solution is	A. 1 mole B. 1.4 mole C. 2.0 mole D. 2.4 mole
11	Solution may have units	A. Molarity B. Molality C. Mole fraction D. All of them
12	The boiling point of an a zeotropic mixture of water and ethye alcohol is less than that of water and alcohol. The mixture shows	A. That solution is highly saturated B. No deviation from Raoult's law C. Positive deviation from Raoult's law D. Negative deviation from Raoult's law
13	10 ml of 1.5 M NaOH solution is neutralized by 20 ml of a-M HCl solution. The value of 'a' will be	A. 1.0 B. 0.75 C. 0.5 D. 0.25
14	0.1 molar glucose (C ₆ H ₁₂ O ₆) solution has the % W/N	A. 1.8% B. 18% C. 0.18% D. 2.8%

15	The process of osmosis was first discovered by	A. Nollet B. Pfeffer C. Traube D. Dutrochet
16	An azeotropic mixture of two liquids boils at a lower temperature than either of them when :	A. It is saturated. B. It shows positive deviation from Raoult's law. C. It show negative deviation from Raoult's law. D. It is metastable.
17	A solution sucrose is 34.2%. The volume of solution containing one mole of solute :	A. 342 cm ³ <o:p></o:p> B. 1000 cm ³ <o:p></o:p> C. 500 cm ³ <o:p></o:p> C. 500 cm ³ D. 242 cm ³ 10.5pt;">cm ³
18	5g of glucose is dissolved fro 100 cm of solution. Percentage of solution is :	A. 5 % v/w B. 5 % v/w C. 5 % w/v D. 5 % w/w
19	Partial pressure of a solution component is directly proportional to its mole fraction. This statement is known as	A. Henry's law B. Raoult's law C. Distribution law D. Ostwald's dilution law
20	A solutiion of 0.5 mole camphor in 100 grmas chloroform ($\rm K_{b}$ = 0.322) has rise in boiling point than that of chloroform by	A. 0.81°C B. 1.61°C C. 1.81°C D. 0.61°C