ECAT Chemistry Online Test

Sr	Questions	Answers Choice
1	Which one of the following is an ideal solution that obeys Rault's law	A. Ethanol + water B. Benzene + toluene C. HCl + water D. Acetone + chloroform
2	The sum of mole fractions (X) of components of solution is equal to	A. 100 B. 200 C. One D. Zero
3	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
4	Mixture of alcohol and water can be separated by	A. Solvent extraction techniques B. Crystallization C. Precipitation and filtration D. Fractional distillation
5	Hydrolysis of potassium acetate produces	A. Acidic solution B. Neutral solution C. Basic solution D. None of these
6	Cane sugar is not soluble in benzene but soluble in water because	A. Cane sugar is a macro molecule B. Cane sugar is an ionic compound C. Can sugar has hydrogen bonding D. Can sugar is an organic molecule
7	Freezing point depression is measured by	A. Beckmann's apparatus B. Lands Berger's method C. Antifreeze apparatus D. All of the above
8	Zeotropic mixture	A. Obey Henry's law B. Obey Raoult's law C. Does not obey Raoult's law D. Obey Dalton's law
9	Dust particles in smoke is a solution of the type	A. Liquid is solute and solid is solvent B. Solid is solute and liquid is solvent C. Solid is solute and gas is solvent D. Gas is solute and solid is solvent
10	The substance which contains the water of crystallization is called	A. Hydrated B. Solvated C. Crystal D. None
11	The number of moles of NH_4Cl 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
12	A solution containing 5.8 grams acetone (CH_3OCH_3), 4.6 gram ethyl alcohol (C_2H_5OH) and 12 grams chloroform (CHI_3) has mole fraction and mole percent of acetone	A. 0.11, 10% B. 0.33, 33% C. 0.22, 22% D. 0.11, 33%
13	A solution consisting of 92 grams ethyl alcohol (C_2H_5OH) 96 grams methyl alcohol (CH_3OH) 90 grams water the mole fraction and mole percent of methyl alcohol is	A. 0.3. 30% B. 0.2, 30% C. 0.5, 30% D. 0.2, 20%
14	17.1 grams sucrose ($C_{12}H_{22}O_{11}$) dissolved in 250 cm^3 of solution. This has molarity	A. 0.1 M B. 0.2 M C. 0.01 M D. 0.02 M
15	50 cm^3 of 0.05 molar nrea (N_2H_4CO) solution has % W/N concentration	A. 6% B. 3% C. 0.3 %

16	10% aqueous solution of NaCl has molarity	A. 1.7 M B. 2.7 M C. 0.17 M D. 3.7 M
17	0.1 molar glucose ($C_6H_{12}O_6$) solution has the % W/N	A. 1.8% B. 18% C. 0.18% D. 2.8%
18	The molarity of toluene solution in benzene is 0.22 if 5 grams of toluene dissolved, then mass of benzene is grams is	A. 267 B. 260 C. 240 D. 247
19	The term cryoscopy is used for	A. Depression of freezing point B. Elevation in boiling poing C. Lowering of vapour pressure D. Osmotic pressure
20	The molarity of the solution containing x grams $(NH_4)_2SO_4$ in 500 cm^3 of the solution is 0.6 what is x	A. 39.6 B. 45.1 C. 40.5 D. 42.7
21	The amount of solute present in the given amount of solvent is called	A. Molarity B. Molality C. Concentration D. Solubility
22	The molarity of solution containing 14.5 grams urea (N_2H_4CO) dissolved in 100 cm^3 of the solution is	A. 1 molar B. 0.1 molar C. 0.2 molar D. 0.25 molar
23	What will be the molarity of solution if 103 g $(NH_4)_2SO_4$ is dissolved per 600 cm^3 of water	A. 2.32 M B. 3.32 M C. 4.32 M D. 1.30 M
24	What mass of NaOH is required to prepare 2.5 dm^3 of 1.5 M NaOH solution	A. 130 g B. 140 g C. 150 g D. 160 g
25	How many cm^3 of 1 M H_2SO_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
26	The term ebullioscopy is used for	A. Depression of freezing point B. Elevation in boiling point C. Lower of vapour pressure D. None of the above
27	What is the molarity of a solution containing 15.0 g urea in 500 cm^3 of solution	A. 0.5 M B. 1 M C. 1.5 M D. 2 M
28	Precipitation will occur until the ionic product becomes	A. Equal to K_{sp} B. Lesser than K_{sp} C. Greater than K_{sp} D. None of these
29	If ionic product of a solution is greater than solubility product, the solution is	A. Supersaturated B. Saturated C. Unsaturated D. None of these
30	If the ionic product of a solution is less than the solubility product, the solution is	A. Supersaturated B. Unsaturated C. Ideal D. Saturated