ECAT Chemistry Chapter 9 Solutions Online Test

Sr	Questions	Answers Choice
1	The volume of 0.1 M H_2SO_4 required to neutralize completely 40 ml of 0.2 M NaOH solution is	A. 10 ml B. 40 ml C. 20 ml D. 50 ml
2	The concentration units independent of temperature would be	A. Normality B. Mass-volume precent C. Molality D. Molarity
3	Isotonic solutions have same	A. Molar concentration B. Molality C. Normality D. None of these
4	Which of the following is not a colligative property?	A. Depression in freezing point B. Elevation of boiling point C. Osmotic pressure D. Modification of refractive index
5	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
6	At 25°C, the highest osmotic pressure is exhibited by 0.1 M solution of	A. CaCl₂ B. KCl C. Glucose D. Urea
7	Equal volumes of 0.1 M $AgNO_3$ and 0.2 M NaCl are mixed. The concentration of NO^-_3 ions in the mixture will be	A. 0.1 M B. 0.05 M C. 0.2 M D. 0.15 M
8	The process of osmosis was first discovered by	A. Nollet B. Pfeffer C. Traube D. Dutrochet
9	Osmotic pressure of a solution increases by	A. Decreasing the temperature B. Increasing the volume C. Increasing the number of molecules of the solute D. None of the above
10	The example of colligative property is	A. Boiling point B. Osmosis C. Freezing point D. Osmotic pressure
11	The molal depression constant depends upon	A. Nature of solute B. Nature of solvent C. Δ H_{solution} D. Vapour pressure of solution
12	Solution which distill without change in composition or temperature are called	A. Amorphous B. Azeotropic mixture C. Ideal D. Super saturated
13	1.0 g pure calcium carbonate was found to require 50 ml of dilute HCl for complete reaction. The strength of HCl solution is given by	A. 4 N B. 2 N C. 0.4 N D. 0.2 N
14	If 18 g glucose ($C_6H_{12}C_6$) is present in 1000 g of an aqueous of glucose it is said to be	A. 1 molal B. 1.1 molal C. 0.5 molal D. 0.1 molal

15	Which is not a colligative property?	A. Osmotic pressure B. Lowering of vapour pressure C. Depression of freezing point D. Elevation of boiling point
16	The molal elevation constant is the ratio of the elevation in boiling point to	A. Molarity B. Molality C. Mole fraction of solute D. Mole fraction of solvent
17	Which inorganic precipitate acts as semipermeable membrane?	A. Calcium sulphate B. Barium oxalate C. Nickel phosphate D. Copper ferrocyanide
18	The movement of solvent molecules through a semipermeable membrane is called	A. Electrolysis B. Electrophoresis C. Osmosis D. Cataphoresis
19	Saturated solution of NaCl on heating becomes	A. Super saturated B. Unsaturated C. Remains saturated D. None
20	The osmotic pressure of solution increases if	A. Temperature is decreased B. Solution constant is increased C. Number of solute molecules are increased D. Volume is increased
21	Which of the following is a colligative property?	A. Melting point B. Osmotic pressure C. Freezing point D. Sublimation temperature
22	In cold countries ethylene glycol is added to water in radiators of cars during winter. It results in	A. Lowering in b.pt B. Reducing viscosity C. Reducing specific heat D. Lowering in freezing pt
23	What happens when isotonic solution of A (mol.wt.342) and B (mol.wt 60) are put in to communication through semipermeable membrane?	A. Transference of solvent from solution A to that of B take place B. Transference of solvent from solution B to that of A takes place C. No transference of solvent from solution A to that of B takes place D. Change in temperature of solutions takes place
24	The freezing point of 1 molal NaCl solution assuming NaCl to be 100% dissociated in water in	A. -1.86°C B. -3.72°C C. +1.86°C D. +3.72°C
25	A solution has 92 g of ethyl alcohol, 96 g of methyl alcohol and 90 g of water. Mole percentage of ethyl alcohol in the solution is	A. 10 B. 20 C. 25 D. 50
26	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
27	Water shows maximum density at	A. 4°C B. 0°C C. 100°C D. -4°C
28	What is the molarity of the solution that contains 20 grams of NaOH in 500 ml of solution [Na = 23, O = 16, H = 1]	A. 0.25 B. 0.5 C. 1 D. 20
29	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
		A. 10.5 %

30	The percentage by weight of NaCl, if 6.0 g of NaCl is dissolved in 120 g of water is	A. 10.0 % B. 5% C. 8.02% D. 11.5%