

ECAT Chemistry Online Test

Sr	Questions	Answers Choice
1	Which of the following statements is true about Galvanic cell	A. Anode is negatively charged B. Reduction occurs at anode C. Cathode is positively charge D. Reduction occurs at cathode
2	The cathodic reaction in the electrolysis of dil H_2SO_4 with Pt electrodes	A. Reduction B. Oxidation C. Both oxidation and reduction D. neither oxidation or reduction
3	In the presence of copper electrodes the electrolysis of aqueous CuSO_4 produces at cathode	A. $\text{H}_{2(\text{g})}$ B. $\text{O}_{2(\text{g})}$ C. $\text{SO}_{2(\text{g})}$ D. Cu metal
4	Strong oxidizing agents have	A. Greater positive value of standard reduction potential B. Lesser positive value of standard C. Greater negative value of standard D. None of these
5	Question Image	A. Zn B. H C. S D. O
6	Metals usually conduct electricity because	A. There are mobile electrons in the metallic structure B. Metals are decomposed by current C. Metals have high resistance D. In metals the ions are free to move
7	A cell in which spontaneous redox reaction generates an electric current is called	A. Electrolytic cell B. Electrochemical cell C. Voltaic or Galvanic cell D. Biological cell
8	The freezing mixture used in ice cream machine consists of ice and	A. NaCl B. KCl C. $\text{MgCl}_{2(\text{s})}$ D. $\text{NaNO}_{3(\text{s})}$
9	3.6% w/v solution of HCl has the molarity	A. 1.0 B. 1.15 C. 0.98 D. 1.98
10	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
11	According to Raoult's law	A. Relative lowering of V.P. is equal to mole fraction of solute B. The lowering of V.P. is directly proportional to mole fraction of solute C. V.P. of solvent above solution is equal to product of V.P. of pure solvent and mole fraction of solvent in solution D. All of the above
12	A solution of 0.5 mole camphor in 100 g of chloroform ($K_b = 0.322$) 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
13	Which of the following half molar solutions will have lowest freezing point	A. Solution of non-volatile, none electrolyte B. Solution of non volatile, weak electrolyte C. Solution of non volatile strong electrolyte D. Solution of volatile, non electrolyte
14	Which of the following salts mixed with ice to make the freezing mixture used in ice cream machine	A. $\text{KNO}_{3(\text{s})}$ B. $\text{NH}_{4(\text{s})}\text{NO}_{3(\text{s})}$ C. $\text{AgNO}_{3(\text{s})}$ D. $\text{Mg(NO}_3)_2(\text{s})$

		D. $\text{Mg}(\text{NO}_3)_2$
15	Which one of the following is used as antifreeze in the radiator	A. Methanol B. Ethanol C. Ethylene glycol D. Glycerin
16	Which one of the following solution will have higher vapour pressure than that of water	A. Aqueous solution of methanol B. Aqueous solution of HCl C. Aqueous solution of glucose D. Aqueous solution of urea
17	Solubility curve of $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$ shows	A. Constant increase of solubility B. Constant decreases of solubility C. Discontinuously solubility with temperature D. None of above
18	Which of the following aqueous solutions have the lowest freezing point	A. 5.85% NaCl B. 6% urea C. 34.2 sucrose D. All of them have same freezing points
19	Aqueous solution of glucose $\text{C}_6\text{H}_{12}\text{O}_6$, boils at 100.052°C . The solution contains	A. 180 grams glucose in 1 kg water B. 18 grams glucose in 1 kg water C. 1.8 grams glucose in 1 kg water D. 3.6 grams glucose in 1 kg
20	Solubility of a substance in water decreases with rise in temperature except	A. $\text{CaCl}_2 \cdot 6\text{H}_2\text{O}$ B. $\text{Pb}(\text{NO}_3)_2$ C. $\text{K}_2\text{Cr}_2\text{O}_7$ D. $\text{Ce}_2(\text{SO}_4)_3$
21	Saturated solution of a solid is prepared at a constant temperature. 100 cm^3 of this saturated solution is evaporated in a china dish. The mass of the residue is called	A. Azeotropic mixture B. Solubility C. Solubility product D. Equilibrium constant
22	Which one of the following has continuous solubility curve	A. NH_4NO_3 B. CaCl C. $\text{CaCl}_2 \cdot 6\text{H}_2\text{O}$ D. $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$
23	Which one of the following has discontinuous solubility curve	A. $\text{CaCl}_2 \cdot 6\text{H}_2\text{O}$ B. NaCl C. KCl D. NaNO_3
24	Elevation of boiling point is measured by	A. Beckmann's apparatus B. Landsberger's method C. Antifreeze apparatus D. None of these above
25	A Solution containing 6.8 g of non-ionic solute in 100g of water was found to freeze at -0.93°C . If k_f for water is 1.86 and molecular mass of solute is	A. 13.6 B. 34 C. 68 D. 136
26	Which of the following liquid pairs shown a positive deviation from Raoult's law	A. $\text{CH}_3\text{COOH} + \text{CH}_3\text{Cl}$ B. $\text{C}_6\text{H}_6 + \text{H}_2\text{O}$ C. $\text{H}_2\text{O} + \text{HCl}$ D. $\text{H}_2\text{O} + \text{HNO}_3$
27	Which statement is incorrect for an ideal solution	A. The forces of attractions between solute and solvent molecules are same B. There is no evolution or absorption of heat C. Volume of the solution is less than sum of volumes of individual components D. Vapour pressure of solution is directly proportional to the mole fraction of solvent
28	Which of the following mixture of liquids show negative deviation from Raoult's law	A. Ethyl alcohol and ether B. HCl and water C. Phenol- water D. Chlorobenzene-bromobenzene
29	Which one of the following mixture shows positive deviation from Raoult's law and forms an azeotrope with minimum boiling point	A. Methanol + CCl_4 B. Methanol + acetone C. Ether + HCl D. Acetone + chloroform
30	Which of the following has the highest freezing point at one atmosphere	A. 0.1 M NaCl B. 0.1 M sugar solution C. 0.1 M BaCl_2 D. 0.1 M FeCl_2 solution

