

## NAT II Physical Science Chemistry

Sr	Questions	Answers Choice
1	If a salt bridge is removed electrode is made from which of the following?	A. $\text{ZnCl}_2$ B. $\text{CuSO}_4$ C. $\text{Hg}_2\text{Cl}_2$ D. $\text{HgCl}_2$
2	When quantity of electricity passed is one faraday then the mass deposited at the electrode is equal to	A. One gm. atomic weight B. One gm. equivalent weight C. Electrochemical equivalent D. None of the above
3	Which of the substances Na, Hg, S, Pt and graphite can be used as electrodes in electrolytic cells having aqueous solution?	A. Na, Pt and graphite B. Na and Hg C. Pt and graphite only D. Na and S only
4	Which is not a colligative property?	A. Osmotic pressure B. Lowering of vapour pressure C. Depression of freezing point D. Elevation of boiling point
5	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
6	Which inorganic precipitate acts as semipermeable membrane?	A. Calcium sulphate B. Barium oxalate C. Nickel phosphate D. Copper ferrocyanide
7	The movement of solvent molecules through a semipermeable membrane is called	A. Electrolysis B. Electrophoresis C. Osmosis D. Cataphoresis
8	Saturated solution of NaCl on heating becomes	A. Super saturated B. Unsaturated C. Remains saturated D. None
9	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
10	Which of the following is a colligative property?	A. Melting point B. Osmotic pressure C. Freezing point D. Sublimation temperature
11	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.
12	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.
13	The freezing point of 1 molal NaCl solution assuming NaCl to be 100% dissociated in water	A. $-1.86^\circ\text{C}$ B. $-3.72^\circ\text{C}$ C. $-5.48^\circ\text{C}$ D. $-7.22^\circ\text{C}$

C. +1.86>"C</span>  
D. +3.72>"C</span>

14

Which of the following value of  $\Delta H_f^\circ$  represent that product is least stable?

A. -94.0 kcal mol<sup>-1</sup>  
B. -231.6 kcal mol<sup>-1</sup>  
C. +21.4 kcal mol<sup>-1</sup>  
D. +64.8 kcal mol<sup>-1</sup>

15

All the naturally occurring processes proceed spontaneously in a direction which lead to

A. Decrease of entropy  
B. Increase of enthalpy  
C. Increase of free energy  
D. Decrease of free energy