**I.P.S.Sr.Sec.School**

**Max Time : 1 hr** **Class : 12th Chemistry Max Marks : 20**

**Monthly Test**

1. What do you expect to happen when Red blood corpuscles (RBCs) are placed in : [ 1 ]

(i) 1 % NaCl solution (ii) 0.5 % NaCl solution

1. Why are the aquatic species more comfortable in cold water in comparison to warm water? [ 1 ]
2. What are isotonic solutions? [ 1 ]
3. Calculate the mass of urea (NH2CONH2) required in making 2.5 kg of 0.25 molal aqueous solution. [ 2 ]
4. Calculate the freezing point of a solution containing 60 g of glucose in 250 g of water. (Kf for water = 1.86 K/m). [ 2 ]
5. Will the elevation in boiling point be same if 0.1 mol of sodium chloride or 0.1 mol of sugar is dissolved in 1 L of water? Explain. [ 2 ]
6. Write two differences between a solution showing positive deviation and a solution showing negative deviation from Raoult’s law. [ 2 ]
7. Define : (a) Molarity (b) Mole fraction (c) Molality [ 3 ]
8. Define Raoult’s law with positive deviation with example. [ 3 ]
9. One litre of N/2 HCl solution is heated in a beaker. It was observed that when the volume of the solution was reduced to 600 mL, 3.25 g of HCl is lost. Calculate the normality of the new solution. [ 3 ]

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