Reg. No. :

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. When one of product is removed from the reaction the direction of reverse reaction is   CO1- R

   (a) Forward   (b) Backward   (b) Backward   (b) Backward

2. For what order reaction does the half-life get longer as the initial concentration increases?   CO1- R

   (a) Zeroth order   (b) First order   (c) Second order   (d) None of them

3. The one which decreases with dilution is   CO2- U

   (a) Conductance   (b) Specific conductance
   (c) Equivalent conductance   (d) Molar conductance

4. Conductometric methods can be used for the analysis of _____ solutions.   CO2- U

   (a) concentrated   (b) colored
   (c) non-colored colloidal   (d) brine

5. Degrees of freedom at triple point will be   CO3- R

   (a) 0   (b) 1   (c) 2   (d) 3

6. The important factor influencing the solubility of a gas in liquid is   CO3- R
   __.

   (a) viscosity   (b) density   (c) surface tension   (d) pressure

7. Rate of physical adsorption increase with   CO4- R

(a) Increase in temperature   (b) Decrease in pressure

(c) Decrease in temperature   (d) Decrease in surface area

8. The enrichment of chemical substances at the surface of solid is called   CO4- R

    (a) Adsorption   (b) Absorption   (c) Sorption   (d) Isotherm

9. Which of the following can act as a protective colloid?   CO5- U

    (a) Gelatin   (b) Siliga gel   (c) Oil in water mulsion   (d) All of these

10. Polymer formation from monomers starts by   CO5- R

(a) condensation reaction between monomers

(b) coordination reaction between monomers

(c) conversion of monomers to monomer ions by protons

(d) hydrolysis of monomers

<div align="center">PART – B (3 x 8= 24 Marks)</div>

<div align="center">**(Answer any three of the following questions)**</div>

11. What is meant by First order kinetics? Derive the kinetics of First order kinetics.   CO1- U   (8)

12. State and explain Kohlrausch's law.Discuss its significance and its applications.   CO2- U   (8)

13. Explain the phase diagram of two component system with suitable example   CO3- U   (8)

14. What is Langmuir adsorption isotherm and derive on expression of it.   CO4- U   (8)

15 Discuss any four methods for the preparations of colloids.   CO5- U   (8)

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