Assignment
CHE-202
Sem III 2017
Unit Test I

UNIT -I :-Thermodynamics

*** Questions for Long Answer**

1) Derive an expression for the change in entropy when two ideal gases are mixed.
2) Explain:- For irreversible process entropy change is always increases.
3) Derive:- Gibbs Halmoltz equation.
4) Explain:- During phase transformation there is entropy change take place.

*** Questions for Short Answer:**

(1) What is the symbol of Entropy?
(2) Explain in two lines: (a) Spontaneous process (b) Entropy change
(3) Give the first & second law of thermodynamics in equation form
(4) What is Dalton's law for partial pressure?

UNIT: II-A Electro Chemistry

*** Questions for Long Answer**

Q.1 Explain Transport numbers of ions.
Q.2 Discuss Moving boundary method for the determination of ions of electrolytes.
Q.3 Discuss Conductometric titration curves for the titration of

I Titration of Strong Acid against Strong Base. ($HCl \rightarrow N_aOH$)
II Titration of Weak Acid against Strong Base. ($CH_3COOH \rightarrow N_aOH$)
III Titration of Very Weak Acid against Strong Base. ($H_3BO_3 \rightarrow N_aOH$)

*** Questions for Short Answer:**

Define the followings
(1) Conductometric titration.
(2) Principle of Conductometric titration.
(3) Use of Conductometric titration..
(4) Activity.
(5) Activity coefficient.

Unit-III-A Catalysts

*** Questions for Long Answer**

(1) Explain Homogeneous catalysis.
(2) Explain Heterogeneous catalysis.
(3) Discuss about enzyme catalysed reactions.
(4) Derivation of the Michaelis menten equation for enzyme kinetics.

*** Questions for Short Answer:**

(1) Give an example of catalyst.
(2) Give the definition of catalysis reaction.
(3) Give different types of catalysis reaction.

Unit —IV (A) Polymer Chemistry

*** Questions for Long Answer**

- ❖ Give the Classification of Polymers.
- ❖ Write a note on Free radical Chain polymerization.
- ❖ Write a note on Cationic polymerization.
- ❖ Write a note on Anionic polymerization.
- ❖ Explain in detail about Co-ordination polymerization.
- ❖ Write a note on Step growth polymerization.
- ❖ Give details about Poly condensation.
- ❖ Write a note on Poly addition.
- ❖ Explain, Ring Opening Polymerization.

*** Questions for Short Answer:**

- ❖ Definition: Monomer, Polymer, Polymerization, Degree of Polymerization