

Assignment
CHE-303
Sem V 2017
Unit Test I

UNIT I

Questions for Long Answer

- 1) Derive Claperon-clascious equation.
- 2) Derive zeroth law of thermodynamics
- 3) Prove:- troutan's law.
- 4) Derive craft's equation.
- 5) Derive vant-hoff isotherm & isochors equation.

Questions for Short Answer:

- 1) State the zeroth law of thermodynamics.
- 2) What is the value of trouton's constant ?
- 3) Craft equation is the combination of which two equations ?

UNIT II (A) Electro Chemistry

Questions for Long Answer

Q.1 Derive Nernst's equation for determination of oxidation potential of single electrode of metal.

Q.2 Write a note on Quin hydrone electrode.

Q.3 Write a note on Poggendorf's Compensation method.

Q.4 Write a note on reversible and irreversible cells.

Q.5 Write a note on Calomel electrode.

Answer the following question in short.

- (1) Define EMF.
- (2) Define Reference electrode.
- (3) Write a principle of electro chemical cell.
- (4) Write a cell reaction of Weston cell.
- (5) What is reduction potential of saturated calomel electrode at 25°C ?
- (6) Write any TWO drawback of std. Hydrogen electrode

Unit-III-B

Questions for Long Answer

Q-1 Explain free radical chain polymerisation.

Q-2 Explain Ionic polymerisation

Q-3 Explain insertion polymerisation

Q-4 Discuss about Osmotic pressure method for the determination of molecular weight of polymer.

Q-5 Discuss about thermodynamics of polymer Solution.

Questions for Short Answer:

Q-1. Give the definition of polymerisation.

Q-2. Give any three examples of biopolymers.

Q-3 Give the definition of co-polymers.

Q-4 Give any one example of polymerisation reaction.

Unit —IV (A) Nuclear Chemistry

Questions for Long Answer

- ❖ Explain in details about Bain-bridge velocity focusing mass spectrograph.
- ❖ Give in details about Nier's double focusing mass spectrograph.
- ❖ Write a note on Applications of Radioactive Isotopes.

Questions for Short Answer

- ❖ Definition: Isotops, Isomers, Isotones, Isobar.