

Hemchandracharya North Gujarat University, Patan

B. Sc. Chemistry

Semester : V

Polymer Chemistry

Paper : SE CH – 605 E

UNIT:- I : Polymers – 1

- Introduction
- Classification and Nomenclature of polymers
- Isomerism of polymers
- Chain growth polymerization – Introduction
- Mechanism of free-radical, Cationic and Anionic polymerization
- Kinetics of free radical, Cationic and Anionic polymerization
- Mechanism and Kinetics polycondensation

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UNIT:- II : Polymers - 2

- Polymerization Techniques
- Concept of Averages
  - Number average molecular weight
  - Weight average molecular weight
  - Viscosity average molecular weight
- Molecular weight and Degree of polymerization
- Poly dispersity and molecular weight distribution
- Methods for determination of molecular weight
- Membrane Osmometry, Viscometry and Light Scattering

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Reference Books:

1. Principles of polymers Science by P.Bahadur and N.V.Sastry.(Second Edition )
2. Polymer Science by V.R.Gowariker, N.V.Vashwanathan and Jaydev Shreedhar.