

ACADEMIC PLANNER & UNITIZATION OF SYLLABUS

Department: Chemistry

SEMESTER-VI

DSE T3 – Analytical Methods in Chemistry

DSE T4 – Polymer Chemistry

Subject Teacher: Dr.MridulaAcharyya

AY: 2023-24

SYLLABUS UNITIZATION:

MONTH	WEEK	TOPICS to be TAUGHT
March	2	Infrared Spectrometry: Basic principles of instrumentation (choice of source, monochromator & detector) for single and double beam instrument;.
March	3	Structural illustration through interpretation of data, Effect and importance of isotopesubstitution.
March	4	Different schemes of classification of polymers, Polymer nomenclature, Molecular forces.
April	1	Chemical bonding in polymers, Texture of Polymers.
April	2	Functionality and importance of Polymer
April	3	Relationships between functionality, extent of reaction and degree of polymerization.
April	4	Nature and structure of polymers Structure Property relationships
May	1	<b>CLASS TEST</b>
May	2	Criteria for synthetic polymer formation, classification of polymerization processes,
May	3	Bifunctionalsystems, Poly-functional systems.
May	4	Sampling techniques
June	1	<b>CLASS TEST</b>
June	2	Revision
June	3	Revision
June	4	Revision

## Reference Book

- ▶ R.B. Seymour & C.E. Carraher: Polymer Chemistry: An Introduction, Marcel Dekker, Inc. New York, 1981.
- ▶ G. Odian: Principles of Polymerization, 4th Ed. Wiley, 2004.
- ▶ F.W. Billmeyer: Textbook of Polymer Science, 2nd Ed. Wiley Interscience, 1971.
- ▶ P. Ghosh: Polymer Science & Technology, Tata McGraw-Hill Education, 1991.
- ▶ R.W. Lenz: Organic Chemistry of Synthetic High Polymers. Interscience Publishers, New York, 1967.