

SARDAR PATEL UNIVERSITY
Programme & Subject: B.Sc (Industrial Chemistry)
Semester: VI
Syllabus with Effect from: November-2013

Paper Code: US06CICH03	Total Credit: 3
Title of Paper: Polymer Technology	

Unit	Description in detail	Weightage (%)
I	Polymerization - classification, nomenclature of polymers, mechanism of chain polymerization, free radical polymerization and its kinetics, ionic polymerization, co-ordination polymerization. Polycondensation-Introduction, Mechanism and effect of various parameters.	25%
II	Raw material manufacture, polymerization, properties and application of PF, UF, MF, PU, Epoxy resins.	25%
III	Raw material manufacture, polymerization, properties and application of PE, PP, polycarbonates, PTFE, PVC, PS, PVA.	25%
IV	Fiber - Natural and synthetic fiber- nylon, polyester and rayon. Rubber - Natural and synthetic rubbers, Polyisoprene, Butadiene, Neoprene, SBR and Thiokol.	25%

Basic Text & Reference Books:

- Shreve's Chemical Process Industries by Austin (McGraw - Hill Publication, New Delhi)
- Riegel's Hand Book of Industrial Chemistry by James A Kent (CBS Publishers & Distributors - New Delhi)
- Polymer Science by V. H. Gowariker, N. V. Viswanathan, JayadevSreedhar, Wiley Eastern. (New Age International (P) Ltd, New Delhi)
- Polymer Science and Technology of Plastics and Rubbers by PremamoyGhosh (Tata McGraw - Hill Publishing Co. Ltd., New Delhi)

