SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc (Industrial Chemistry)
Semester: III
Syllabus with Effect from: June - 2015

Paper Code: PS03EICH06	**Total Credit: 4**
Title Of Paper: Industrial Polymers	

Unit	Description in Detail	Weightage (%)
I	Thermoplastics materials: Synthesis of monomers, Polymerization, Structure related properties, general properties and applications of various thermoplastics materials like polyolefin's, viz. Polyethylene, Polypropylene, PVC, Poly(vinyl acetate) and its derivatives, Acrylic plastics, plastics based on Styrene	25%
II	Engineering thermoplastics: Intermediates, polymerization technology, structure,properties & applications of aliphatic Polyamides ,PET and poly carbonates	25%
III	Thermoplastic elastomers: Introduction, structure,properties and applications of various thermoplastic elastomers like styrene based elastomers, urethanes and olefinic elastomers	25%
IV	Introduction, Principle, working and applications of following polymer processing techniques:Injectionmoulding, extrusion, blow moulding, compression moulding, film casting ,thermoforming and vacuum forming	25%

Basic Text & Reference Books:-

- Fundamental principles of polymer materials practices for engineers, Plastics Materials, Stephen L. Rosen, Barnes& Noble, New York.
- Plastics Materials, J. A. Brydson, Butterworths, London.
- Polymer Technology, Miles &Briston, J. G, Chemical Publishing company, Inc, New York.
- Plastics Materials and Processes, Seymour S. Schwartz S.H. Goodman, Van Nostrand Reinhold, New York.
- Plastics Technology, R. V. Milbey, McGraw Hill, Book Company New York,
- Polymer science and Technology of Plastics and Rubber, P. Ghosh, McGraw hill, New York.
- Engineering Plastics, R.W. Dyson, Chapman & Hall, New York.