

SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc (Inorganic Chemistry)
Semester: III
Syllabus with Effect from: June - 2013

Paper Code: PS03ECHE01	Total Credit: 4
Title Of Paper: Synthetic Dyes & Pigments	

Unit	Description in detail	Weightage (%)
I	Fundamental of dyes: General, Important chemical chromophors of dyes, Dyes Class for principle applications, Description of individual of class and synthesis of some commercial dyes.	25%
II	Dying processes of textiles: Pretreatment of textile fibres, dyeing methods for various textiles, Textile finishes and Textile auxiliaries. Non textile dyes: Leather, Fur, Hair, Food, Ink, Photographic, indicator dyes.	25%
III	Dyes for electro optical application: Molecular Orbital design, Synthesis and characteristics of functional dyes. Near infrared absorption (NIR) dyes: Introduction, Cyanine type chromophores, donar-asseptor chomophores, applications. Colorants for high technology, Color and constitution relationships in Azoacetoacetanilide pigments.	25%
IV	Organic Pigments: Synthesis, Characterizam and application. Some other aspects related to dyes: Non matagenic dyes, colourants for high technology Fluorescent Brithtening agents.	25%

Basic Text & Reference Books:-

- Advances in colour chemistry series - Vol.3 Modern colorants : synthesis and structure
- Edited by A.T. Peters and H.S. Freeman
- Blackie Academic & Professional (1995)
- Colour Chemistry : Synthesis, Properties and applications of Organic dyes and pigments Heinrich Zollinger, VCH, Germany (1987)
- Critical Reports on Applied Chemistry Vol.7
- Developments in Chemistry and technology of organic dyes
- Edited by: J. Griffiths, Blackwell Scientific Publications (1984)
- Organic Chemistry in colour P.F.Gordon, P.Gregory, Springer-Verlag (1983)
- Infrared Absorbing Dyes Edited by Masaru Matsuoka, Plenum Press (1990)
- The Chemistry of Synthetic dyes and pigments by H.A.Lubs, Reinhold Publication (1955)
- The Chemistry of Synthetic dyes Vol.I-IX Edited by K. Venkataraman Academic Press (1971)
- Textile Auxiliaries By J. W. Batty
- The production and applications of fluorescent Brighteing Agents Milos Zahradnik, John Wiley & Sons. 1982

