

SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc (Surface Coating Technology)
Semester: III
Syllabus with Effect from: June - 2010

Paper Code: PS03CSCT02	Total Credit: 4
Title Of Paper: Technology of Paint Manufacturing	

Unit	Description in Detail	Weightage (%)
I	Principles of Paint Formulation, Rheology of mill base consistency by Daniel flow point and f (PVC); Concept of Pigment Volume concentration (PVC) and CPVC, RTM & MBC	30 %
II	Theory of pigment Wetting and dispersion; Dispersion technology, Coating manufacturing equipments - Machinery used for grinding of minerals and Pigments for paints including Balls Mill, Sand Mill, Dyano Mill, Attritor, Basket Mill, HSDD, TSD, TRM etc.	50 %
III	Plant Location & Paint Factory Layout; Important concepts of production management	10 %
IV	Pollution & its control in paint industry; Safety & Hygiene in Paint Industry	10 %

Basic Text & Reference Books:-

- Surface coatings: Vol II: Paints & Their Applications, 2nd ed., OCCA, Chapman and Hall, 1984
- “Paint flow and pigment dispersion”, 2nd ed., T.C.Patton, 1979
- “Paints and surface coatings -Theory & Practice”, 2nd ed., R. Lambourne & T.A. Stevens, William Andrew Publishing, 1999
- Basics of Paint Technology, Vol I, V.C. Malshe, 1st ed. 2000
- Basics of Paint Technology, Vol II, V.C. Malshe, 1st ed. 2008
- Organic Coatings - Applications, Properties & Performance, Vol II, Wicks Z. W., wiley interscience pub.ltd., 1992
- Paint Formulations: Principles & Practice; J. Boxal & Fraunhoffer
- Concise Paint Technology, J. Boxal & Fraunhoffer, 1st ed., Chem Pub., 1979
- “Introduction to Paint Chemistry & Principle of Paint Technology”, 3rd ed., Turner G.P, Chapman & Hall, 1988

