

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

Paper Code: PS04CSCT03	Total Credit: 4
Title Of Paper: Coating Application & Specialty Coatings	

Unit	Description in detail	Weightage (%)
I	Techniques of Surface Preparation: Need for Surface Preparation; Manual and Mechanical methods of Surface Preparation, e.g. Sand blasting and Flame clearing; Conversion Coatings and Pretreatment Chemicals for Ferrous and Non-Ferrous Substrate; Surface Preparation for Plastic Substrates; Rust Converters	30%
II	Techniques of Paint Application: Brushing, dipping, conventional spray, Air less spray, electrostatic spray, Bell applicator, electrodeposition coating, vacuum impregnation, Curtain coating and roller coatings	40%
III	Study of Coil Coating, UV cured coating, Waterborne PU Coatings, Non Stick coatings, Smart Coatings, Hygienic Coatings	30%

Basic Text & Reference Books:-

- Organic Coatings - Applications, Properties & Performance, Vol II, Wicks Z. W., wiley interscience pub.ltd., 1992.
- Protective Paint coatings for metals, Fraunhofer and Boxall, Particullis Press Ltd, 2 Queensway, Surey, England.
- Surface coatings: Vol II: Paints & Their Applications, 2nd ed., OCCA, Chapman and Hall, 1984.
- “Paints and surface coatings -Theory & Practice”, 2nd ed., R. Lambourne & T.A. Stevens, William Andrew Publishing, 1999.
- The Technology, Formulation & Application of Powder coatings Vol I, Howell David M, John Willey, 2000.
- Phosphating of Metals, RAUSH.
- Automotive Paints and Coatings, Hans-Joachim Streitberger & Karl-Friedrich Dossel, 2008
- Paint Technology Handbook, Rodger Talbert, 2007

