

SARDAR PATEL UNIVERSITY
Programme: B.Sc (Industrial Chemistry-Vocational)
Semester: V
Syllabus with effect from: June-2013

Paper Code: US05CICV03	Total Credit: 3
Title of Paper: Technology of Petroleum & Petroleum Products	

Unit	Description in detail	Weightage (%)
I	Introduction - Nomenclature Generic names, Trade names, Theories of Formation, Composition, Refining and Rectification process of Petroleum.	25%
II	Manufacture of the following compounds: Methane, ethylene, acetylene. Preparation of the following from methane, methanol, hydrogen cyanide, carbon disulphides.	25%
III	Preparation of the following from ethylene. Ethyl chloride, ethanol, ethylene oxide, ethylene glycol, acetic acid, styrene, vinyl acetate. Manufacture of the following compounds: From propylene: Isopropanol, Cumene, glycerine, acrylonitrile.	25%
IV	Manufacturing From C-4 hydrocarbons, Butadiene, isobutene, isobutane, butandionols. Benzene, Toluene, xyelene, naphthalene, linear alkyl benzenes and their sulphonates. Various catalysts used in petrochemical industry, preparation, applications and selectivity.	25%

Basic Text & Reference Books:

- Handbook of petroleum refining process R.A.Meyers, Mcgraw Hill, Book Com. New York.
- From Hydrocarbons to petrochemicals, L.F. Hatch Gulf Publishing company, Houston.
- Petrochemicals – The vise of an industry, Spitz, Willey.
- Introduction to petroleum chemicals, M. Steiner, Pergaman Press.
- Catalysts in petrochemical refining, Trima.Billmeyer.
- A Text on Petrochemicals by BhaskarRao (Khanna Publishers - New Delhi)
- Modern Petroleum Refining Process by BhaskarRao (Oxford & IBH Publishing Co. Pvt. Ltd. – New Delhi)
- Advanced Petrochemicals by Dr. G. N. Sarkar (Khanna Publishers)
- Advanced Petroleum Refining by Dr. G. N. Sarkar (Khanna Publishers)
- Chemicals from Petroleum by A. L. Waddam(ELBS edition, London.)
- Shreve’s Chemical Process Industries by Austin (MacGrow- Hill Publication, New Delhi)

