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

Paper Code: PS02CICH10	**Total Credit: 4**
Title Of Paper: Petrochemical Technology	

Unit	Description in Detail	Weightage (%)
I	**Introduction:** Petroleum refining, Petrochemical feed stocks from petroleum refining, The basic building block processes, Petrochemical process technology, Primary raw materials for Petrochemicals like Natural gas, Crude oils, coal, oils shell, tar sand and gas hydrates.	25%
II	**Crude Oil Processing and Production of Hydrocarbon:** Introduction, Physical separation Processes, Conversion Processes, Production of Olefines, Paraffinic hydrocarbon, olefins hydrocarbons, dienes, aromatic hydrocarbons, liquid petroleum fraction and residues. Reforming,Isomerization,Cracking	25%
III	**Alkanes and higher Paraffin based Chemicals:** Introduction, Chemical based on synthetic gases, Chemical based on direct reaction of methane, ethane, propane and naphtha based chemicals from high molecular weight n-paraffin	25%
IV	**Chemicals based on olefin diolefin and aromatic hydrocarbon:** Introduction, Chemicals from n-butenes, isobutylenes, butadiene, benzene, toluene, xylene. Test Methods for petroleum products	25%

Basic Text & Reference Books:-

- Chemistry of Petrochemical Process, Sami Matar, Lewis F. Hatch, Gulf Professional Publishing. Boston.
- Fundamental of Petroleum Chemical Technology, P. Belov, Mir Publications, Moscow.
- Advanced Petroleum Refining, G. N. Sarkar, Khanna Publishers, Delhi
- Petrochemicals, Peter Wisheman, John Wiley & Sons, New York
- Fundamentals of Petroleum and petrochemical Engineering, Uttam Rai Chaudhari,CRCPress,Taylor& Francis group