

Course code	Course Name	L-T-P-Credits	Year of Introduction
CH409	ORGANIC CHEMICAL TECHNOLOGY	3-0-0-3	2016
Prerequisite : Nil			
Course Objectives			
<ul style="list-style-type: none"> To expose conversion of raw materials into useful organic products. To impart unit operations and unit processes employed in the manufacture of organic products. To familiarize the manufacturing processes of natural organic products and synthetic organic chemicals. 			
Syllabus			
Food Processing, Soaps And Detergents, Synthetic Organic Chemical Industries			
Expected Outcome			
The students will be able to			
<ol style="list-style-type: none"> understand the manufacturing of various inorganic and organic chemicals identify various process parameters and to prepare process flow diagrams. apply the concepts of unit operation and unit processes in the design of process plants 			
References:			
<ol style="list-style-type: none"> G.N. Pandey, A Textbook of Chemical Technology, Vol.II, Vikas Publishing House. George T. Austin, Shreve's Chemical Process Industries, McGraw-Hill International Editions, Gopala Rao M. and Marshall Sittig, Dryden's Outlines of Chemical Technology, Edited by Affiliated East - West Press Moulijn J. K., Makkee M. and van Diepen A., "Chemical Process Technology", Wiley. 			
Course Plan			
Module	Contents	Hours	Sem. Exam Marks
I	Natural products Industries I: general study of food processing-food by products - leather- gelatin – adhesives - vegetable oils-animal fats and oils –waxes.	7	15%
II	Natural products Industries II: sugar, starches and related products-industrial alcohol by fermentation-absolute alcohol-beers, wines and liquors.	6	15%
FIRST INTERNAL EXAMINATION			
III	Natural products Industries III- soaps and detergents-glycerine-pulp and paper: Raw materials, pulping processes, recovery of chemicals, stock preparation and papermaking.	8	15%
IV	Synthetic Organic Chemical Industries I: Manufacturing processes of formaldehyde-methanol-chloromethanes-trichloroethylene-perchloroethylene-vinyl chloride-acetaldehyde-acetone-vinyl acetate	6	15%

SECOND INTERNAL EXAMINATION			
V	Synthetic Organic Chemical Industries II: Manufacturing processes of cumene-acrylonitrile-isoprene-butadiene-phenol-styrene-phthalic anhydride-maleic anhydride-nitrobenzene-aniline	8	20%
VI	Synthetic Organic Chemical Industries III: general study of dyes and intermediates-pesticides-pharmaceuticals-biotechnology	7	20%
END SEMESTER EXAMINATION			

Question Paper Pattern:

Maximum Marks: 100

Exam Duration: 3 Hours

Part A: There shall be **Three questions** uniformly covering Modules 1 and 2, each carrying 15 marks, of which the student has to answer any **Two questions**. At the most 4 subdivisions can be there in one main question with a total of 15 marks for all the subdivisions put together.

(2 x 15 = 30 Marks)

Part B: There shall be **Three questions** uniformly covering Modules 3 and 4, each carrying 15 marks, of which the student has to answer any **Two questions**. At the most 4 subdivisions can be there in one main question with a total of 15 marks for all the subdivisions put together.

(2 x 15 = 30 Marks)

Part C: There shall be **Three questions** uniformly covering Modules 5 and 6, each carrying 20 marks, of which the student has to answer any **Two questions**. At the most 4 subdivisions can be there in one main question with a total of 20 marks for all the subdivisions put together.

(2 x 20 = 40 Marks)