

UCPES BERHAMPUR

CHEMICAL ENGINEERING DEPARTMENT LESSON PLAN

Discipline :- CHEMICAL	Semester:- 5th	Name of the Teaching Faculty Mr SIBASISH MAHAPATRA
Subject:- Chemical Process Industries – II	No of Days/per Week Class Allotted :-04	Semester From:- July To:- December
Course Code : TH 3		
Week	Class Day	Theory/ Practical Topics
1 st	1 st	CHAPTER-1: PESTICIDES Introduction
	2 nd	Pesticides, Classification
	3 rd	Manufacture of DDT
	4 th	DDT flow sheet description & application
2 nd	1 st	CHAPTER-2: PAINTS AND VARNISHES Introduction about paint, varnishes, lacquers, enamels and their components
	2 nd	Constituents of paints and their characteristics
	3 rd	Manufacturing process of paints and varnishes.
	4 th	Failure of paints
3 rd	1 st	Advance technologies in paint industries
	2 nd	CHAPTER-3: EXPLOSIVES Introduction about explosives
	3 rd	Classification of different explosives
	4 th	Manufacture of cellulose nitrate
4 th	1 st	Broad application of cellulose nitrate
	2 nd	Manufacture nitroglycerine and dynamite
	3 rd	CHAPTER-4: PLASTICS Introduction about plastics, types
	4 th	Differentiate between thermoplastic and thermosetting
5 th	1 st	Classification of plastics
	2 nd	Properties and manufacture of phenol formaldehyde and its application
	3 rd	Properties and manufacture of urea formaldehyde and its application
6 th	4 th	Properties and Manufacture of polyethylene and its application
	1 st	Properties and Manufacture of P.V.C and its application
	2 nd	CHAPTER-5: SYNTHETIC FIBERS Introduction about fibre and its classification
	3 rd	Properties of polyamides
7 th	4 th	Manufacture of Nylon and its application
	1 st	Properties and Manufacture of Viscose rayon and its application
	2 nd	Properties and Manufacture of Cupro ammonium rayon and its application

	3 rd	Properties and Manufacture of Acetate rayon and its application
	4 th	Properties and Manufacture of Polyester and its application
8 th	1 st	CHAPTER-6: RUBBER Introduction about rubber and its classification
	2 nd	Vulcanization of rubber
	3 rd	Natural and synthetic rubber
	4 th	Manufacture of SBR and their properties
9 th	1 st	Manufacture of Nitrile rubber and their properties
	2 nd	CHAPTER-7: SUGAR Introduction
	3 rd	Manufacture of sugar from sugarcane
	4 th	Manufacture of industrial alcohol and uses
10 th	1 st	Classification of alcoholic beverages
	2 nd	Properties of Alcohols
	3 rd	Manufacture of Beer
	4 th	Cont..
11 th	1 st	CHAPTER-8: OILS AND FATS Classify different types of oil
	2 nd	Manufacture of vegetable oil
	3 rd	Differentiate edible and essential oil
	4 th	Differentiate oil and fats
12 th	1 st	Hydrogenation of oil and application
	2 nd	Advance technologies in oil production
	3 rd	CHAPTER-9: SOAPS AND DETERGENTS Introduction on soaps and detergent
	4 th	Differentiate between soap and detergent
13 th	1 st	Properties of surfactant
	2 nd	Cleaning action of soap
	3 rd	Types of soap
	4 th	Manufacture of soap and uses
14 th	1 st	Manufacture of detergent and uses
	2 nd	Industrial application of surfactants
	3 rd	CHAPTER-10: PHARMACEUTICAL INDUSTRY Classification of pharmaceutical industry
	4 th	Major pharmaceutical industry in India
15 th	1 st	Pharmaceutical industry products
	2 nd	Properties and structure of penicillin
	3 rd	Manufacture of penicillin by fermentation
	4 th	Application of penicillin