

Lesson Plan

DIPLOMA IN PHARMACY : FIRST YEAR
 SUBJECT : PHARMACEUTICS
 TOTAL HOURS ASSIGNED : 75 HOURS (82 classes)
 SESSION : 2022-23
 SUBJECT TEACHER : MADHUSMITA SWAIN

Sl. no	Title of Unit / Chapter	Theory Day	Date	PORTION TO BE COVERED	Actually covered	Remark
1	Packaging material	1.		Types Packaging		
		2.		Selection criteria		
		3.		Advantages and disadvantages of Glass		
		4.		Plastic		
		5.		Metal and rubber as packaging material.		
2	Pharmaceutical Aids	6.		Organoleptics –colouring agents		
		7.		flavouring ,and sweeteningagents		
		8		Preservatives :Definition ,types with examples and uses.		
3	Unit Operations	9		Size reduction : Definition , objectives/ applications,principle ,construction and working of Hammer mill ,Ball mill		
		10		Size separation : Definition , objectives/ applications,Sieves and standards of sieves ,Classification of powders according to IP.		
		11		principle ,construction and working of cyclone separator		
		12		Mixing : Definition , objectives/ applications, principle ,construction and working of Double cone blender, Turbine mixer		
		13		Triple roller mill, silverson mixer homogenizer.		
		14		Drying :Working of fluidized bed dryer		
		15		Process of freeze drying		
		16		Extraction :Definition ,classification		
		17		methods,applications		
		18		-do-		
4	TABLETS	19		Definition, Advantages and		

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	20	Coated tablets , Defects in coating
	21	Uncoated tablets and Granulation methods
	22	Various Modified Tablets : Sustained release tablets
	23	Extended release tablets
	24	Fast dissolving Tablets
	25	Double layered tablets
	26	Quality control Tests of Tablets
	27	Definition ,Advantages ,Disadvantages ,Classification of Capsules
Capsules	28	Hard gelatin Capsules
	29	-do -
	30	Soft gelatin Capsules
Liquid oral preparations	31	Solution
	32	Syrup
	33	Elixir
	34	Emulsion
	35	Suspension
	36	Dry powder for reconstitution
TOPICAL PREPARATION	37	Ointments
	38	-do-
	39	Cream
	40	Pastes
	41	Gels
	42	Lotion and liniments
	43	-do-
	44	Suppositories
	45	Pessaries
	46	-do-
	47	Nasal preparation
	48	Ear preparation
Powders and granules	49	Insufflations
	50	Dusting powder
	51	Effervescent powder and granules
Sterile Formulation	52	Injectables
	53	-do-
	54	Eye drops
	55	-Do-
	56	Eye ointments
	57	-Do-
Immunological products	58	Sera
	59	-Do-
	60	Vaccine

		61		-Do-		
		62		Toxoid		
		63		-Do-		
		64		-Do-		
		65				
5.	Basic structure ,layout, section, and activities of Pharmaceutical manufacturing plants Quality Control and Quality assurance			Basic structure ,layout, section,		
		66		activities of Pharmaceutical manufacturing plants		
		67		Quality Control		
		68		-Do-		
		69		Quality assurance		
		70		-Do-		
		71		Current good manufacturing practice		
		72		Introduction to concept of calibration and validation		
6.	Novel drug delivery system	73		Introduction ,Classification		
		74		Classification with examples		
		75		Advantages		
		76		Challenges		
7	History of pharmacy	77		History of profession of pharmacy in India in relation to pharmacy Education, Industry, pharmacy practice and various professional association.		
		78		Pharmacy as a career		
		79.		Pharmacopoeia : Introduction to IP,BP,USP,NF, andextrapharmacopoeia		
		80.		Salient Indian Pharmacopoeia features of.		
		81.		-do-		
		82.		Revision		

Prepared by : Madhusmita Swain
Lecturer
G.P.BBSR