

18BP003 PHARMACEUTICS - I

Hours Per Week :

L	T	P	CP	CL
3	1	4	2	4

Total Hours :

L	T	P	WA/RA	SSH/HS	CS	SA	S	BS
45	1	45						

SCOPE:

This course is designed to impart a fundamental knowledge on the preparatory pharmacy with arts and science of preparing the different conventional dosage forms.

COURSE OUTCOMES:

Upon completion of the course, the student will be able to achieve the following outcomes:

COs	Course Outcomes	POs	PSOs
1	Know the history of profession of pharmacy	1,5,7	1,2
2	Understand the basics of different dosage forms	1,5,7	1,2
3	Understand the pharmaceutical incompatibilities and pharmaceutical calculations	1,7	1,2
4	Understand the professional way of handling the prescription	1,7,9	1,2
5	Apply the knowledge to prepare various conventional dosage forms	1,2,4	1,2

UNIT-I **10HOURS**

HISTORICAL BACKGROUND AND DEVELOPMENT OF PROFESSION OF PHARMACY: History of profession of Pharmacy in India in relation to pharmacy education, industry and organization, Pharmacy as a career, Pharmacopoeias: Introduction to IP, BP, USP and Extra Pharmacopoeia.

DOSAGE FORMS: Introduction to dosage forms, classification and definitions

PRESCRIPTION: Definition, Parts of prescription, handling of Prescription and Errors in prescription.

PHONOLOGY: Definition, Factors affecting phonology. Pediatric dose calculations based on age, body weight and body surface area.

UNIT-II **10HOURS**

PHARMACEUTICAL CALCULATIONS: Weights and measures – Imperial & Metric system, Calculations involving percentage solutions, allegation, proof spirit and isotonic solutions based on freezing point and molecular weight.

POWDERS: Definition, classification, advantages and disadvantages, Simple & compound powders – official preparations, dusting powders, effervescent, efflorescent and hygroscopic powders, eutectic mixtures. Geometric dilutions.

LIQUID DOSAGE FORMS: Advantages and disadvantages of liquid dosage forms. Excipients used in formulation of liquid dosage forms. Solubility enhancement techniques

UNIT-III **08HOURS**

MONOPHASIC LIQUIDS: Definitions and preparations of Gargles, Mouthwashes, Throat Paint, Eardrops, Nasal drops, Enemas, Syrups, Elixirs, Liniments and Lotions.

Biphasic liquids:

SUSPENSIONS: Definition, advantages and disadvantages, classifications, Preparation of suspensions; Flocculated and Deflocculated suspension & stability problems and methods to overcome.

EMULSIONS: Definition, classification, emulsifying agent, test for the identification of type of Emulsion, Methods of preparation & stability problems and methods to overcome.

UNIT-IV **08HOURS**

SUPPOSITORIES: Definition, types, advantages and disadvantages, types of bases, methods of preparations. Displacement value & its calculations, evaluation of suppositories.

PHARMACEUTICAL INCOMPATIBILITIES: Definition, classification, physical, chemical and therapeutic incompatibilities with examples.

UNIV-V **07HOURS**

SEMISOLID DOSAGE FORMS: Definitions, classification, mechanisms and factors influencing dermal penetration of drugs. Preparation of ointments, pastes, creams and gels. Excipients used in semi solid dosage forms. Evaluation of semi solid dosages forms

