



PHARMACEUTICS-I

(Based on the Syllabus Prescribed by the
Pharmacy Council of India,
For B. Pharm First Semester)



Dr. Vijay Sharma | Prof. Amit Kumar | Mrs. Swati Gautam
Ms. Pooja Singh | Ms. Deepali Singh

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Ms Pooja Singh, Ms. Deepali Singh**

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To write book of this magnitude, it required lot of patience, skill and expertise over the subject, which I have gain through various opportunities got in the field of teaching and academia. I would like to dedicate this book to my Almighty and My Family.

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All Authors

- UNIT – I** **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. **10 Hours**
- Dosage forms:** Introduction to dosage forms, classification and definitions
- Prescription:** Definition, Parts of prescription, handling of Prescription and Errors in prescription.
- Posology:** Definition, Factors affecting posology. Pediatric dose calculations based on age, body weight and body surface area.
- UNIT – II** **Pharmaceutical calculations:** Weights and measures – Imperial & Metric system, Calculations involving percentage solutions, alligation, proof spirit and isotonic solutions based on freezing point and molecular weight. **10 Hours**
- 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** **Monophasic liquids:** Definitions and preparations of Gargles, Mouthwashes, Throat Paint, Eardrops, Nasal drops, Enemas, Syrups, Elixirs, Liniments and Lotions. **08 Hours**

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 the type of Emulsion, Methods of preparation & stability problems and methods to overcome.

UNIT – IV

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

08 Hours

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

UNIV – V

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.

07 Hours

Contents

UNIT I.....	1
Chapter - 1.....	2
Chapter - 2.....	18
Chapter - 3.....	24
Chapter - 4.....	35
UNIT- II.....	42
Chapter - 5.....	43
Chapter - 6.....	58
Chapter - 7.....	82
UNIT -III.....	97
Chapter - 8.....	98
Chapter - 9.....	123
UNIT – IV	153
Chapter - 10.....	154
Chapter - 11.....	164
UNIT- V	167
Chapter - 12.....	168