BP103T. PHARMACEUTICS- I (Theory)

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.

- **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.

- **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.

- **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

• **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

• **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

BP109P. PHARMACEUTICSI (Practical)

1 . Syrups
a) Syrup IP'66
b) Compound syrup of Ferrous Phosphate BPC'68

2. Elixirs a) Piperazine citrate elixir
b) Paracetamol pediatric elixir

3.Linctus a) Terpin Hydrate Linctus IP'66

4. Solutions
b) Iodine Throat Paint (Mandles Paint)
a) Strong solution of ammonium acetate
b) Cresol with soap solution
c) Lugol's solution

5. Suspensions
a) Calamine lotion
b) Magnesium Hydroxide mixture
c) Aluminimum Hydroxide gel

6. Emulsions
a) Turpentine Liniment
b) Liquid paraffin emulsion

7. Powders and Granules
a) ORS powder (WHO)
b) Effervescent granules
c)Dusting powder
d)Divded powders

8. Suppositories
a) Glycero gelatin suppository
b) Coca butter suppository
c) Zinc Oxide suppository

9. Semisolids
a) Sulphur ointment
b) Non staining-iodine ointment with methyl salicylate
c) Carbopal gel

10. Gargles and Mouthwashes
a) Iodine gargle
b) Chlorhexidine mouthwash