

# SABBHAVNA COLLEGE OF MANAGEMENT & TECHNOLOGY VILLAGE JALALDIWAL , RAIKOT , LUDHIANA (PB)

SUBJECT NAME - PHARMACEUTICS II

SUBJECT CODE – 2001

## Theory

### 1. Dispensing Pharmacy :

- (i) Prescriptions- reading and understanding of prescriptions: Latin terms commonly used (Detailed study is not necessary), Modern methods of prescribing, adoption of metric system. Calculations involved in dispensing.
- (ii) Incompatibilities in prescriptions - Study of various types of incompatibilities-physical, chemical and therapeutic.
- (iii) Posology-Dose and dosage of drugs, Factors influencing dose, calculations of doses on the basis of age, sex and surface area. Veterinary doses.

### 2. Dispensed Medications. :

(Note : A detailed study of the following dispensed medication is necessary. Methods of preparation with theoretical and practical aspects, use of appropriate containers and closures. Special labelling requirements and storage conditions should be highlighted).

(i) Powders - Types of Powders- Advantages and disadvantages of Powders, granules, cachets and Tablet triturates. Preparation of different types of powders encountered in prescriptions. Weighing methods, possible errors in weighing, minimum weighable amounts and weighing of a material below the minimum weighable amount, geometric dilution and proper usage and care of dispensing balance.

(ii) Liquid Oral Dosage Forms :

(a) **Monophasic** - Theoretical aspects including commonly used vehicles, essential adjuvant like stabilizers, colourants and Flavors, with examples.

Review of the following monophasic liquids with details of formulation and practical methods.

Liquids for internal administration	Liquids for external administration or used on mucous membranes
Mixtures and concentrates	Gargles
Syrups	Mouth washes, Throat-paints, Douches
Elixirs	Ear Drops, Nasal drops & sprays, Liniments, Lotions

(b) **Biphasic Liquid Dosage Forms :**

(i) Suspensions (elementary study) - Suspensions containing diffusible solids and liquids and their preparations. Study of the adjuvants used like thickening agents, wetting agents, their necessity and quantity to be incorporated. Suspensions of precipitate forming liquids like tinctures, their preparations and stability. Suspensions produced by chemical reaction. An introduction to flocculated/non-flocculated suspension system.

(ii) Emulsions-Types of emulsions, identification of emulsion systems, formulation of emulsions, selection of emulsifying agents. Instabilities in emulsions. Preservation of emulsions.

(iii) Semi-Solid Dosage Forms :

- a. Ointments-Types of ointments, classification and selection of dermatological vehicles. Preparation and stability of ointments by the following processes :

- i. i) Trituration
  - ii. ii) Fusion
  - iii. iii) Chemical reaction
  - iv. iv) Emulsification.
- b. Pastes-Difference between ointments and pastes Bases of pastes. Preparation of pastes and their preservation.
  - c. Jellies-An introduction to the different types of jellies and ;their preparation.
  - d. An elementary study of poultice.
  - e. Suppositories and pessaries-Their relatives merits and demerits, types of suppositories, suppository bases, classification, properties, Preparations and packing of suppositories. Use of suppositories for drug absorption.
- (iv) Dental and Cosmetic Preparations :
- Institution to Denitrifies, Facial cosmetics, Deodorants, Antiperspirants, Shampoos, Hair dressings and Hair removers.
- (v) Sterile Dosage Forms
- a. Parenteral ;dosage forms-Definition, General requirements for parenteral dosage forms. Types of parenteral formulations, vehicles, adjuvants, processing, personnel, facilities and Quality control. Preparation of Intravenous fluids and admixtures-Total parenteral nutrition, Dialysis fluids.
  - b. Sterility testing, Particulate matter monitoring-Faculty seals-packaging.
  - c. Ophthalmic Products-Study of essential characteristics of different ophthalmic preparations. Formulation additives, special lprecautions in handling and storage of ophthalmic products.



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