

PHARMACY PRACTICE-II (DISPENSING, COMMUNITY, SOCIAL & ADMINISTRATIVE PHARMACY

(Practical)

Paper 10

Marks 100

NOTE: Practical of the subject shall be designed from time to time on the basis of the above mentioned theoretical topics and availability of the facilities e.g. Practical introduction to prescription-handling, interpretation, filling and labelling.

Mixtures: Dispensing of simple mixtures containing soluble substances only, mixtures containing diffusible substances, in-diffusible substances and mixtures forming precipitate.

Powders: Dispensing of simple powders, compound powders and effervescent powders for external use.

Incompatibility: Practical Importance of Incompatibilities

Ointments And Creams: Dispensing of iodine and methyl salicylate ointment. Dispensing of cold cream and vanishing creams.

Cosmetics: Lipstick, talcum powder, after shave lotion, shaving cream.

(Note: A minimum of 20 practicals will be conducted).

Health Science Research Project: In the area of health care system, community pharmacy. Establishment of DIC, PCC,

PHARMACEUTICAL CHEMISTRY-III (PHARMACEUTICAL ANALYSIS) (Theory)

Paper 5

Marks 100

The topics will be taught with special reference to their Pharmaceutical Applications.

- 1. SPECTROSCOPIC METHODS:** Theory, Instrumentation and Pharmaceutical applications of the following Spectroscopic Methods:
 - Atomic Absorption and Emission Spectroscopy
 - Molecular fluorescence spectroscopy
 - Flame Photometry
 - I.R. Spectroscopy
 - Mass Spectroscopy
 - NMR Spectroscopy
 - U.V./Visible Spectroscopy
- 2. CHROMATOGRAPHIC METHODS:** Column Chromatography, Thin Layer Chromatography, Gas Liquid Chromatography, HPLC, LCMS, GCMS, Capillary Electrophoresis.
- 3. ELECTRO CHEMICAL METHODS:** Potentiometry, Polarography and Radiochemical Techniques.
- 4. THERMAL ANALYSIS:** Differential Scanning Calorimetry, Differential Thermal Analysis, Thermo Gravimetric Analysis.
- 5. OCCURENCE, PROPERTIES, PREPARATION AND APPLICATION OF OFFICIAL INORGANIC COMPOUNDS:** Aluminium Hydroxide, Ammonium Chloride, Sodium

Carbonate, Magnesium Carbonate, Lithium Carbonate, Sodium Nitrite, Calcium Gluconate, Antimony Gluconate, Ferrous Fumarate, Ferrous Sulfate and Silver Nitrate.

6. **TITRIMETRIC ANALYSIS:** Acid-base titration, Oxidation-reduction titration, Argentometric titration, Complexometric titration, Non-aqueous titration etc.

PHARMACEUTICAL CHEMISTRY-III (PHARMACEUTICAL ANALYSIS) (Practical)

Paper 11

Marks 100

NOTE:- Practical of the subject shall be designed from time to time on the basis of the above mentioned theoretical topics and availability of the requirements e.g. Determination of the Purity and Composition of the unknown drugs by using at least each of the above techniques. (Note: A minimum of 20 practicals will be conducted).

PHARMACY PRACTICE-III (COMPUTER AND ITS APPLICATION IN PHARMACY) (Theory)

Paper 6

Marks 50

1. **FUNDAMENTALS BASIC CONCEPT OF COMPUTERS:** History of Data Processing, Types of Computers, Components of a Computer, Computer System and Business Computer System, Backing Storage Devices, Unit of Memory, Viruses and Anti-viruses Issues.
2. **RESEARCH METHODOLOGIES:**
3. **SYSTEM ANALYSIS AND DESIGN:** What is a System?, Steps in system life cycle, Data Gathering and Data Analysis, Designing a New System, Development and Implementation of New System, Documentation.
4. **DATA PROCESSING:** Data Processing, The Data Processing Cycle, The Collection and Computing of data, Manual collection of data, The main methods of data input, Devices used to collect data, Data Verification, Data Validation, Output and Recording of data, Types of data processing systems, Types of Computer Operation, Batch Processing and Real-time Processing.
5. **APPLICATION OF COMPUTERS IN HOSPITAL PHARMACY:** Patterns of Computer use in Hospital Pharmacy, Patient record database management, Medication order entry, Drug labels and list, Intravenous solution and admixture, Patient Medication profiles, Inventory control, Management report & Statistics.
6. **APPLICATION OF COMPUTER IN COMMUNITY PHARMACY:** Computerizing the Prescription Dispensing process, Use of Computers for Pharmaceutical Care in community pharmacy, Accounting and General Ledger system.
7. **APPLICATION OF DRUG INFORMATION RETRIEVAL & STORAGE:** Introduction Advantages of Computerized Literature Retrieval use of Computerized Retrieval.
8. **DATA ANALYSIS:** Introduction and implementations of statistical design and test. Students T-test, Chi Square, ANOVA using statistical packages like SPSS, Med Calc, Kinetica etc.