

# DELHI STATE EXTRAORDINARY PART-IV

## PUBLISHED BY AUTHORITY

# No. 108 Delhi, Tuesday, August, 18, 2015 GOVERNMENT OF DELHI HEALTH AND FAMILY WELFARE DEPARTMENT NOTIFICATION

Delhi, the 18<sup>th</sup> August, 2015

F. No. 3(224)/2012/DISMH/Homoeo/Estt/HQ/3407- The Board of Homoeopathic System of Medicine, Delhi is a statutory body under the Deptt. of Health & Family Welfare, Govt. of NCT of Delhi is going to introduce a Diploma Course in Homoeopathic Pharmacy under Section—32 of Delhi Homoeopathic Act, 1956 approved by Govt. of NCT of Delhi. Introduction of such type of course by the Board is a land—mark and milestone to develop the science of Homoeopathy and would demand its elegant place in the annals of the future history of Homoeopathy in Delhi, and in India. This Diploma course of Homoeopathic Pharmacy shall comprise a course of study consisting of the Syllabus & Curriculum as prescribed by this Board. It is a course, spread over a period of two year, both theoretical as well as practical training starting from June term which shall be undertaken in the different places run by the Central/State Govt./Local bodies and/or Voluntary Organizations such as different Homoeopathic Pharmaceutical Centers for the development and upliftment of Homoeopathy in general.

The following regulations framed with previous approval of Government by the Board of Homoeopathic System of Medicine, Delhi under Delhi Homoeopathic Act, 1956 prescribing the qualification required for admission to a Homoeopathy Diploma Pharmacy Course in Homoeopathic System of Medicine.

- 1. (1) These regulations may be called the "Diploma in Homoeopathic Pharmacy Course Regulations, 2015".
  - (2) They shall come into force on the date of their publication in the official Gazette.

# 2. ADMISSION CRITERIA TO HOMOEOPATHIC DIPLOMA PHARMACY COURSE

- a) The application form for admission duly filled by the candidate must reach the Board's office within the stipulated date as shall be announced from time to time by the concerned institution affiliated by the Board of Homoeopathic System of Medicine, Delhi.
- b) A candidate shall be admitted to the course subject to the condition that he/she must have passed the minimum qualification:-
  - 12<sup>th</sup> class from a school situated within National Capital Territory of Delhi to be considered as Delhi region candidates with science (Physics, Chemistry & Biology).
  - 12<sup>th</sup> class from any other State to be considered as candidate from outside Delhi with science (Physics, Chemistry & Biology).
- c) Must have attained the age of 17 years on 1<sup>st</sup> June of the year of admission.

- d) The applicant must bear a good moral character.
- e) Two passport size photographs are to be attached, out of which one should be pasted on the application form and the other should be attached only for the purpose of issuance of Identity Card.
- f) Admission shall be made strictly on the basis of Merit with 50% for General candidates & 45% for reservation of various categories

## 3. Duration of Course

The duration of the course shall be for two academic years with each academic year spread over a period of not less than one hundred and eighty working days in addition to 500 hours practical training spread over a period of not less than 3 months.

#### 4. Total No. Seats

Seats will be allotted as per Minimum standard and facilities available in the concerned institution. 85% seats will be available for Delhi region students as per Delhi Govt. norms & 15% seats will be available for outside of Delhi. Reservation for various categories for Delhi region & outside Delhi candidates will be according to the reservation policy of Government.

A list of selected candidates shall be put up on the Notice Board of the institution after scrutiny of application form from the last date of submission of application forms mentioning the date of payment of the fees for admission. Candidates failing to pay the fees on the specified, date as announced, shall forfeit his/her claim for the seat and it shall be allotted to the next deserving candidate from the panel of admission list.

## 5. FEES

The Board will charged Rupees Ten Thousand as Inspection fee from the applicant for inspection of proposed college/institution site.

The annual fee for Homoeopathy Diploma Pharmacy Course shall be Rs. 40,000/- & shall be payable in two installment in the academic year in the form of crossed Demand Draft/Bank Payable Order drawn in favour of the concerned Pharmacy College payable at Delhi/New Delhi. Board reserves the right to review fee structure & admission criteria periodically.

The following shall be the fee for Board's examination :-

## **Examination Fee:**

(i) Diploma in Homoeopathic Pharmacy Course (Part-I) ... Rs.2,000/-Annual Examination Fee including mark sheet

Diploma in Homoeopathic Pharmacy Course (Part-II) ... Rs.2,000/-Annual Examination Fee including mark sheet

(ii) Diploma in Homoeopathic Pharmacy Course Supl. ... Rs.6,00/-per subject Examination Fee including mark sheet

(iii) Enrolment Fee ... Rs.1,000

(iv) Fee for Duplicate Mark Sheet ... Rs.200

## Other Fee:

(i) Late fee upto 30 days ... Rs.250/-

(ii) Late fee upto 20 days ... Rs.25/-(in addition to above)

The fee structure shall be reviewed by the Fee Review Committee at every 4<sup>th</sup> year.

<u>Note: Power to Relax</u>- State Govt. shall have power to release on recommendations of Fee review committee of the institution.

# 6. Course of Study

The course of study for Diploma in Pharmacy Part-I and Diploma in Pharmacy Part-II shall include the subjects as given in the tables I and II below. The number of hour devoted to each subject for its teaching in Theory and Practical, shall not be less than that noted against it in column 2 and 3 tables below:-

<u>TABLE – I</u> <u>Diploma in Pharmacy (Part – I)</u>

Subject	No. of hours of Theory	No. of hours of Practical
Pharmaceutics	200	175
Introduction to Homoeopathic Principles	100	25
Pharmacognosy with Homeo Mat. Medica	200	100
Human Anatomy, physiology & Bio-Chemistry	150	100
	650	400 = 1050

One tour in manufacturing unit & one tour in botanical/herb garden during lst academic year.

<u>TABLE – II</u> <u>Diploma In Pharmacy (Part – II)</u>

	No. of hours of	No. of hours of Practical
Subject	<u>Theory</u>	
Pharmaceutics	200	150
Introduction to Homoeopathic Principles	50	25
Pharmacology & Toxicology	100	50
Pharmaceutical Jurisprudence	50	
Drug Store and Business Management	100	50
Hospital & Clinical Pharmacy	100	50
	600	325 = 925

One tour to HPL & one tour to manufacturing unit during IInd academic year.

7. The syllabus for each subject of study in the said table shall be specified.

# 8. Examination

There shall be an examination for Diploma in Pharmacy (Part – I) to examine students of the first year course and an examination for Diploma in Pharmacy (Part – II) to examine student of the second year course. Each examination may be held twice every year. The first examination in a year shall be the annual examination and the second examination shall be supplementary examination of the Diploma in Pharmacy (Part-I) or Diploma in Pharmacy (Part-II) as the case may be. The examination shall be of written and practical (including oral) nature, carrying maximum marks for each part of the subject as indicated in table III and IV below:-

<u>TABLE – III</u> <u>Diploma in Pharmacy (Part – I)</u>

THEORY		PRACTICAL		VIVA VOCE		INT. ASS		TOTAL		
SUBJECT	<u>Full</u> marks	Pass marks	<u>Full</u> <u>marks</u>	<u>Pass</u> <u>marks</u>	<u>Full</u> <u>marks</u>	<u>Pass</u> marks	<u>Full</u> <u>marks</u>	<u>Pass</u> <u>marks</u>	<u>Full</u> <u>marks</u>	Pass marks
Pharmaceutics I	100	50	40	20	40	20	20	10	300	150
Pharmaceutics II	100	50								
Intr. to Hom.	100	50	20	10	20	10	10	05	150	75

Prncp.										
Pharmacognosy	100	50	40	20	40	20	20	10	300	150
& Hom. Mat. Medica I										
	400									
Pharmacognosy	100	50								
& Hom. Mat.										
Medica II										
Human Anatomy,	100	50	40	20	40	20	20	10	200	100
Physiology & Bio-										
Chemistry										
	600	300	140	70	140	70	70	35	950	475

<u>TABLE – IV</u> Diploma In Pharmacy (Part – II)

<u>Dipionia in Friarmacy (Fart – II)</u>										
	THE	<u>ORY</u>	PRACTICAL		VIVA VOCE		INT. ASS		TOTAL	
<u>SUBJECT</u>	<u>Full</u> marks	Pass marks	<u>Full</u> marks	<u>Pass</u> <u>marks</u>	<u>Full</u> marks	<u>Pass</u> <u>marks</u>	<u>Full</u> <u>marks</u>	Pass marks	<u>Full</u> <u>marks</u>	Pass marks
Pharmaceutics I	100	50	40	20	40	20	20	10	300	150
Pharmaceutics II	100	50								
Intr. to Hom. Prncp.	100	50	20	10	20	10	10	05	150	75
Pharmacology &	100	50	20	10	20	10	10	05	150	75
Toxicology Pharmaceutical Jurisprudence	100	50							100	50
Drug Store & Business	100	50	40	20	40	20	20	10	200	100
Management Hospital & Clinical Pharmacy	100	50	20	10	20	10	10	05	150	75
	700	350	140	70	140	70	70	35	1050	525

# 9. Eligibility for appearing at the Diploma in Pharmacy Part-I Examination

Only such candidates who produce certificates from the Head of the academic institution in which he/she has undergone the Diploma in Pharmacy Part-I course, in proof of his/her having regularly and satisfactorily undergone the course of study by attending not less than 75% of the classes held both in theory and in practical separately in each subject shall be eligible for appearing at the Diploma in Pharmacy (Part-I) examination.

## 10. Eligibility for appearing at the Diploma in Pharmacy Part-II Examination

Only such candidates who produce certificates from the Head of the academic institution in which he/she has undergone the Diploma in Pharmacy Part-II course, in proof of his/her having regularly and satisfactorily undergone the course of study by attending not less than 75% of the classes held both in theory and in practical separately in each subject shall be eligible for appearing at the Diploma in Pharmacy (Part-I) examination.

## 11. Mode of Examination

- i) Each theory examination in the subject mentioned in Table-III & IV shall be of three hours duration.
- ii) A candidate who fails in theory or practical examination of a subject shall reappear both in theory and practical of the same subject.
- iii) Practical examination shall also consist of a viva-voca (oral) examination.

## 12. Minimum marks for passing the examination

A student shall not be declared to have passed diploma in Pharmacy examination unless he/she secures at least 50% marks in each of the subject separately in the theory examinations and at least 50% marks in each of the practical & viva examination separately including seasonal/practical file marks. The candidates securing 60% marks or above in aggregate in all subjects in a single attempt at the Diploma in Pharmacy (Part-I) or Diploma in Pharmacy (Part-II) examination shall be declared to have passed in first class the diploma in Pharmacy (Part-I) or Diploma in Pharmacy (Part-II) examination as the case may be candidates securing 75% marks or above in any subject or subjects shall be declared to have passed with distinction in the subject or those subjects provided he/she passed in all the subjects in a single attempt.

## 13. Eligibility for promotion to Diploma in Pharmacy (Part-II)

All candidates who have appeared for all the subjects and passed the Diploma in Pharmacy (Part-I) examination are eligible for promotion to the Diploma in Pharmacy Part-II Class. However, failure in more than two subjects shall debar him from promotion to the Diploma in Pharmacy Part-II class.

# 14. Approval of examination

The examination shall be held by the Board. If any institution situated outside Delhi seeks permission for affiliation with Delhi Board shall also be considered.

# 15. Provisional Certificate of passing examination for Diploma in Pharmacy (Part-II)

A Provisional Certificate after passing the examination for the Diploma in Pharmacy Part-II shall be granted by the Board.

# 16. Period and other conditions for Practical Training

- i). After having appeared in Part-II examination for the Diploma in Pharmacy, conducted by Board a candidate shall be eligible to undergo practical training of three months of the institutions namely:
  - Hospitals/Dispensaries run by Central/State Govt./Municipal Corporation/Central Government Health Scheme and Employees State Insurance Scheme/NDMC.
- ii). The Institutions referred in sub-regulation(1) shall be eligible to impart training subject to the condition that the number of student pharmacists that may be taken in any hospital, pharmacy, Dispensaries run by Central/State Govt./Municipal Corporation/ New Delhi Municipal Corporation/Central Government Health Scheme and Employees State Insurance Scheme shall not exceed two, where there is one pharmacist engaged in the work in which the student pharmacist is undergoing practical training, where there is more than one pharmacist similarly engaged, the number shall not exceed one for each additional such pharmacist.
- iii). In the course of practical training, the trainee shall have exposure to :-
  - 1) Working knowledge of keeping of records required by various Acts concerning the profession of Pharmacy and
  - 2) Practical experience in
    - a) the holding of pharmaceutical apparatus in common use.
    - b) the reading, translation of copying of prescription including checking of doses.
    - c) the dispensing of prescription illustrating the commoner methods of administrating medicaments and
    - d) the storage of drugs and medical preparations.
- iv). The Practical training shall be not less than five hundred hours spread over a period of not less than three months, provided that not less than two hundred and fifty hours are devoted to actual dispensing of prescription.

## 17. Procedure to be followed prior to commencing of the training

i) The head of an academic training institution, on application, shall supply in triplicate Practical Training Contract Form for qualification as a pharmacist (hereinafter referred to as the Contract Form) to candidate eligible to under-

- take the said practical training. The Contract Form shall be as specified in Annexure–B.
- ii) The head of an academic training institute shall fill Section-I of the Contract Form. The trainee shall fill Section-II of the said Contract Form and the Head of the institution agreeing to impart the training (hereinafter referred to as the Apprentice Master) shall fill Section-III if the said Contract Form.
- iii) It shall be the responsibility of the trainee to ensure that one copy (hereinafter referred to as the first copy of the Contract Form) so

filled is submitted to the head of the academic training institution and the other two copies (hereinafter referred to as the second copy and the third copy) shall be filled with the Apprentice Master (if he so desires) or with the trainee pending completion of the training.

## 18. Certificate of passing Diploma in Pharmacy (Part-III)

On satisfactory completion of the apprentice period, the Apprentice Master shall fill Section-IV of the second copy and third copy of the Contract Form & cause it to be sent to the head of the academic training institution. Who shall suitably enter in the first copy of the entire from the second copy and third copy and shall fill Section-V of the three copies of Contract Form and thereafter hand over both the second copy and third copy to the trainee. This, if completed in all respect, shall be regarded as certificate of having successfully completed the (Part-III) course of Diploma in Pharmacy.

## 19. Certificate of Diploma in Pharmacy

A certificate of Diploma in Pharmacy in Homoeopathy shall be granted by the Board to a successful candidate on producing certificate of having passed the Diploma in Pharmacy Part-I & Part-II and satisfactorily completion of practical training for Diploma in Pharmacy (Part-III).

#### 20. Miscellaneous

No Course of training in Pharmacy shall be considered for approval under regulation 17 unless it satisfies all the conditions prescribed under these regulations.

#### **SYLLABUS**

## **PHARMACEUTICS**

## Part – I Theory (200 hours)

- i) Definition.
- ii) Introduction to pharmacopoeia with special reference to HPI, HPUS, BHP, GHP
- iii) Meteorology systems of weights and measures including Homoeopathic Scales calculation including conversion from one to another system.
- iv) Vehicles, Introduction to vehicles.
- v) Hahnemann's method of preparation of mother tincture.
- vi) Preparation of mother tincture by percolation and maceration, new method.
- vii) Potentization, trituration and succession, conversion of dry trituration to liquid potency.
- viii) Different method of preparation of homoeopathic medicine.
  - Drug trituration and potentization of homoeopathic drug in decimal scale, centesimal scale and millisimal scale.
- ix) Jenichen, finke's high potency, Dr skinners fluxion method and korsakoff's method of dynamisation.
- x) External applications, scope, components and preparation, glycerols, liniments, creams, ointments, lotion, plasters and protective.
- xi) Medication of globules, tablet, diskettes etc
- xii) Preservation of mother tincture and potencies.
- xiii) Posology.
- xiv) Routes of administration.
- xv) Pharmacodynamics; mechanism of drug action, factors modifying drug action.
- xvi) Action of drugs: Physical, Chemical, Dynamic.

## Practical (175 hours)

i) Purity test of vehicle ethyl alcohol, distilled water, sugar of milk, olive oil, glycerine.

- ii) Estimation of moisture content.
- iii) Preparation of mother tincture by old method (1-9 class) succession and trituration (10 each).
- iv) Method potentization, trituration and succussion.
- v) Preparation of culture media and sterility test of eye drop.
- vi) Preparation of distilled water and water for injection.
- vii) Preparation of suspension.
- viii) Emulsion.
- ix) Ointments preparation.
- x) Enema.

## Part – II Theory (200 hours)

- i) Surgical dressings, absorbents, bandages, plasters and protective.
- ii) Size separation by sieving
- iii) Mixing and homogenization, liquid mixing and powder mixing, mixing of semi solids
- iv) Filtration and its classification, theory of filtration, filter media, filter aid and selection of filters
- v) Vehicle used for preparation of homoeopathic drugs, dispensing of medicine, base material used for ointments, liniments, lotion, plasters, poultices, oils and method of preparation.
- vi) Heat processes, evaporation, factors affecting evaporation, study of 'evaporating still and evaporating pan'
- vii) Distillation; simple distillation, fractional distillation, steam distillation, vacuum distillation. Study of vacuum still, preparation of purified water, construction and working of still's used for the same
- viii) Introduction to drying process. Study of tray dryers, fluidized bed dryer, vacuum dryer and freeze dryer
- ix) Sterilization, concept of sterilization and its difference from disinfection, thermal resistance of micro organism, detailed study of a) sterilization with moist heat, b) dry heat sterilization, c) sterilization by filtration, d) gaseous sterilization
- x) Tablets definition, different type of compressed tablets and their properties, process involved in the production of tablets, tablets excipients, physical standards including disintegration and dissolution, tablet coating sugar coating, film coating, entering coating, micro capsulation
- xi) Capsules manufacturing of empty hard gelatine capsule, soft gelatine capsule, formulation and equipment used for manufacturing of hard gelatine capsule and quality control
- xii) Incompatible homoeopathic formulations based on homoeopathic philosophy. Incompatibilities in prescriptions, study of various types of incompatibilities-physical, chemical and therapeutic.
- xiii) Packing and labeling of pharmaceuticals, types of containers, desirable features of containers. Types of glass and plastic materials for containers. rubber as a material for containers- their merits and demerits, introduction to aerosol packaging
- xiv) Good laboratory practice.

# Practical (150 hours)

- i) Capsule filling.
- ii) Utensils cleaning and sterilization.
- iii) Acid base titration.
- iv) Litmus test of chloride, sulphate, iron, heavy metal.
- v) TLC of minimum 5 plant drug.
- vi) Official identification test for minimum 5 drugs included in the HPI and assay of 10 drugs.
- vii) Preparation of skin cream.
- viii) Lotion, face powder.
- ix) Hair shampoo, hair tonic.
- x) Tooth powder, tooth paste.

## INTRODUCTION TO HOMOEOPATHIC PRINCIPLES

## Part I (100 hours)

- i) History of origin and evolution of Homoeopathy
- ii) Life and work of Dr. S. Hahnemann
- iii) Hahnemann a pharmacist
- iv) Concept of Health, Disease, Recovery and Cure in Homoeopathy
- v) Introduction to the study of Organon of Medicine
- vi) Mission of a physician
- vii) Ideal cure
- viii) Principles of Homoeopathic medicine
- ix) Totality of symptoms
- x) Analysis and Evaluation of Symptoms
- xi) Portrait of disease

# Practical - Making Records (25 hours)

All the above topics.

## Part II (50 hours)

- i) Disease Natural & Artificial
- ii) Primary & secondary action of medicine
- iii) Drug Proving (Homoeopathic Pathogenetic Trials)
- iv) Susceptibility
- v) Theory of Chronic Diseases
- vi) Remedy reaction
- vii) Posology
- viii) Sources of Homoeopathic Materia Medica
- ix) Homoeopathic Materia Medica
- x) Comparative study of Homoeopathic Materia Medica with materia medica of other systems of medicine
- xi) Scope and limitations of Homoeopathic Therapeutic

## <u>Practical – Making Records (25 hours)</u>

All the above topics.

## PHARMACOGNOSY WITH HOMOEO. MATERIA MEDICA

## Theory (200 hours)

- Definition, history and scope of Pharmacognosy including indigenous system of medicine
- ii) Adulteration and drug evaluation, significance of Pharmacopoeial standards.
- iii) Morphology, physical, chemical features of following groups with minimum five examples from each:
  - a) Plant Kingdom

#### Family

- Compositeae
- Cucurbitaceae
- Loganiaceae
- Papaveraceae
- Ranunculaceae
- Solanaceae
- Anacardiaceae
- Melanthiaceae
- b) Mineral Kingdom
  - Acid Group
  - Kali Group
  - Natrum Group
  - Baryta Group
  - Calcarea Group
  - Mercury Group

- Carbon Group
- c) Animal Kingdom
  - Ophidia Group
  - Spider Group
  - Insect GroupFish Group
- d) Sarcodes
- e) Nosodes

## Practical (100 hours)

- i) Identification of drug by Morphological Characters.
- ii) Physical & Chemical tests for evaluation of drugs (wherever applicable).
- iii) Gross anatomical studies (t.s) of the following drugs:
  Senna, Datura, Cinnamon, Cinchona, Coriander, Fennel, Clove, Ginger, Nuxvomica, Ipocacuanha.

# **PHARMACOLOGY & TOXICOLOGY**

# Theory (100 hours)

- i) Introduction to Pharmacology, scope of Pharmacology.
- ii) Routes of administration of drugs, their advantages and disadvantages.
- iii) General mechanism of drugs action and the factors which modify drugs action.
- iv) Definition of Toxicology.
- v) Relationship with Homoeopathic Materia Medica.
- vi) Basic principles of Toxicity acute, sub-acute & chronic.
- vii) Local & systemic toxicity.
- viii) Factors influencing toxicity.
- ix) Common house hold poisons.
- x) Classification of poisons.
- xi) Factor modifying action of poisons.
- xii) Fate of poison in body.
- xiii) List of drugs to be studied in relation to Pharmacological action (20 drugs).

## Practical (50 hours)

Identification of Alkaloids.

## **HUMAN ANATOMY, PHSIOLOGY & BIO - CHEMISTRY**

# Theory (150 hours)

- i) Scope of Anatomy and Physiology.
  - Definitions of various terms used in Anatomy.
- ii) Structure of cell, function of its components with special reference to mitochondria and microsomes.
- iii) Elementary tissues of the body i.e. epithelial tissue, muscular tissue, connective tissue and nervous tissue.
- iv) Structure and function and skeleton. Classification of joints and their function, joint disorder.
- v) Composition of blood, functions of blood elements, blood group and coagulation of blood, brief information regarding disorders of blood.
- vi) Name and functions of lymph glands.
- vii) Structure and functions of various parts of the heart, arterial and venous system with special reference to the names and position of main arteries and veins. Blood pressure and its recording. Brief information about cardiovascular disorders.
- viii) Various parts of respiratory system and their functions, physiology of respiration.
- ix) Various parts of urinary system and their functions, structure and functions of kidney, physiology of urine formation, pathophysiology of renal disease and edema.
- x) Structure of skeletal muscle, physiology of muscle contraction, names position, attachments and functions of various skeletal muscles, physiology of neuromuscular junction.
- xi) Various parts of central nervous system, brain and its parts, functions and reflex action. Anatomy and physiology of autonomic nervous system.

- xii) Elementary knowledge of structure and functions of the organs of taste, smell, ear and skin, physiology of pain.
- xiii) Digestive system: names of the various parts of digestive system and their functions, structure and functions of liver, physiology of digestion and absorption.
- xiv) Endocrine glands and hormones, locations of the glands, their hormones and functions, pituitary, thyroid, adrenal and pancreas.
- xv) Reproductive system Physiology and anatomy of reproduction system.
- xvi) The ear, eye and skin Structure and function.

## Practical (100 hours)

- i) Study of the human skeleton.
- ii) Study with the help of charts and models of the following system of organs :
  - a) Digestive system.
  - b) Respiratory system
  - c) Cardiovascular system
  - d) Urinary system
  - e) Reproductive system
  - f) Nervous system
  - g) Eye
  - h) Ear
- iii) Microscopic examination of epithelial tissue, cardiac muscle, smooth muscle, skeleton muscle, connective tissue and nervous tissues.
- iv) Examination of blood films for TLC, DLC and malarial parasite.
- v) Determination of clotting time of blood, erythrocyte sedimentation rate and hemoglobin value.
- vi) Recording of body temperature, pulse, heart rate, blood pressure and ECG.
- vii) First aid Its aim and general principles, improvisation of equipments and utilization of available materials for first aid.

How to tackle hemorrhages, shock, asphyxia, convulsions, wound, burn, scars, poisoning and resuscitations.

Use of bandages, splints etc.

## PHARMACEUTICAL JURISPRUDENCE

# Theory (50 hours)

- Origin and nature of pharmaceutical legislation in India, its scope and objectives. Evolution of the "Concept of Pharmacy" as an integral part of the Health Care System.
- ii) Principles and significance of Professional Ethics.
- iii) Pharmacy Act, 1948 The General study of the Pharmacy Act with special reference to Education Regulations, working of State and Central Councils, constitutions of these councils and functions. Registration procedures under the Act.
- iv) The Drug and Cosmetics Act, 1940 General study of the Drugs and Cosmetics Act and the Rules thereunder. Definitions and salient features related to retail and wholesale distribution of drugs. The powers of Inspectors, the sampling procedures and the procedure and formalities in obtaining licenses under the rule. Facilities to be provided for running a Pharmacy effectively. General study of the Schedules with special reference of schedules C, C1, F, G, J, H, P and X and salient features of labeling and storage condition of drugs.
- v) The Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954 General study of the Act Objectives, special reference to be laid on Advertisements. Magic remedies and objectionable and permitted advertisements disease which cannot be claimed to be cured.
- vi) Narcotic Drugs and Psychotropic Substances Act, 1985 A brief study of the act with special reference to its objectives, offences and punishment.
- vii) Brief introduction to the study of the following acts:
  - a) Latest drugs (Price Control) Order in force.
  - b) Poisons Act 1919 (as amended to date)

- c) Medicinal and Toilet Preparations (Excise Duties) Act, 1955 (as amended to date)
- d) Medical Termination of Pregnancy Act, 1971 (as amended to date)

## **DRUG STORE AND BUSINESS MANAGEMENT**

# Theory (100 hours)

## Part – 1 Commerce

- i) Introduction Trade, Industry and Commerce Functions and subdivision of Commerce, Introduction to Elements of Economics and Management.
- ii) Forms of Business Organisations
- iii) Channels of Distribution.
- iv) Drug House Management Selection of site, Space Lay-out and legal requirements. Importance and objectives of Purchasing, selection of suppliers, credit information, tenders contracts and price determination and legal requirements thereto. Codification, handling of drug stores and other hospitals supplies.
- v) Sales Promotion, Market Research, Salesmanship, qualities of a salesman, Advertising and Window Display.
- vi) Recruitment, training, evaluation and compensation of the pharmacist.
- vii) Banking and Finance service and functions of bank, Finance Planning and sources of finance.

## Part - II Accountancy

- i) Introduction to the accounting concepts and conventions, Double entry book keeping, Different kinds of accounts.
- ii) Cash Book.
- iii) General Ledger and Trial Balance.
- iv) Profit and Loss Account and Balance Sheet.
- v) Simple technique of analysing financial statements.
- vi) Introduction to Budgeting.

(Books Recommended (Latest edition)

Remington's Pharmaceutical Sciences }.

## Practical (50 hours)

Preparing records.

## **HOSPITAL AND CLINICAL PHARMACY**

# Theory: (100 hours)

# **Hospital Pharmacy:**

- i) Hospital Definitions, Function, Classification based on various criteria, organisation, management and health delivery system in India.
- ii) Hospital Pharmacy:
  - a) Definition.
  - b) Functions and objectives of Hospital Pharmaceutical services.
  - c) Location, Layout, Flow chart of material and men.
  - d) Personnel and facilities requirements including equipments based on individual and basic needs.
  - e) Requirements and abilities required for Hospital Pharmacists.
- iii) Drug Distribution system in Hospitals:
  - a) Out patient services.
  - b) In-patient services (a) types of services (b) detailed discussion of Unit Dose system, Floor ward stock system, Satellite pharmacy services, Central sterile, Bed Side Pharmacy.
- iv) Manufacturing:
  - a) Economical considerations, estimation of demand.
  - b) Sterile manufacture large and small volume, parenteral facilities, requirements, layout production planning, manpower requirements.
  - c) Non-sterile manufacture Liquid orals, externals bulk concentrates.
  - d) Procurement for stores and testing of raw materials.
- v) Nomenclature and uses of surgical instruments and Hospital Equipments and health accessories.

- vi) Surgical dressing like cotton, gauze, bandages and adhesive tapes including their Pharmacopoeial test for quality. Other hospital supply e.g. I.V. sets, B.G. sets, Ryle's tubes, Catheters, Syringes etc.
- vii) Application of computer in maintenance of records, inventory control, medication monitoring, drug information and data storage and retrieval in hospital and retail pharmacy establishments.

# **Clinical Pharmacy:**

- i) Introduction to Clinical Pharmacy Practice Definition, scope.
- ii) Modern dispensing aspects Pharmacists and Patients counselling and advice for the use of common drugs, medication history.
- iii) Common daily terminology used in the Practice of Medicine.
- iv) Bio-availability of drugs, including factors affecting it.

## Practical (50 hours)

- i) Testing of raw materials.
- ii) Evaluation of surgical dressing.
- iii) Sterilization of surgical instruments, glass ware and other hospital supplies.
- iv) Handling and use of data processing equipments.

By Order and in the Name of Lt. Governor of Delhi National Capital Territory of Delhi, Dr. MRINALINI DARSWAL, Special Secy.(AYUSH)

# College affiliated with Delhi Board.

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