

CURRICULLUM OF SYLLABUS

Subjects:- Subjects for Study and examination for the Diploma Course In Homoeopathic Pharmacy.

DHP Part-1

- 1- Elementary Human Anatomy and Physiology.
- 2- Introductory Homoeopathy, Bio-Chemistry and twelve tissue remedies.
- 3- Clinical Pathology and Toxicology.
- 4- Homoeopathic Pharmaceutics and Pharmaceutical Chemistry-I
- 5- Health Education and Community Pharmacy.

DHP Part-II

- 1- Homoeopathic Pharmaceutics and Pharmaceutical Chemistry-II
- 2- Pharmacognosy.
- 3- Pharmaceutical Jurisprudence.
- 4- Hospital and Clinical Pharmacy.
- 5- Drug store and Business Management.

- 1- Scope of knowledge of anatomy and physiology.
- 2- Definition of important terms used in anatomy and physiology.
- 3- Structure of cell, function of its components.
- 4- Elementary tissues of the body i.e. epithelial tissue, muscular tissue, connective tissue and nervous tissue.
- 5- (a) Introductory knowledge of skeleton bones their classification, importance.
(b) Surface Anatomy of important Bones.
 ⊙ Classification of joints & elementary knowledge of joints of the body and their function.
- 6- Composition of blood, function of blood elements . Blood group and coagulation of blood, brief information regarding disorders of blood.
- 7- Introductory knowledge of structure and functions of various parts of the heart, Arterial and venous system with special reference to the names and positions of main arteries and veins. Blood pressure and its recording . Brief information about cardiovascular disorders.
- 8- Primary knowledge of various parts of respiratory system and their functions. Physiology of respiration.
- 9- Basic Knowledge of various parts of urinary system and their functions, structure and functions of kidney. Physiology of Urine formation. Pathophysiology renal diseases and edema.
- 10- Primary Knowledge of structure of skeletal muscle, physiology of muscle contraction. Names, Position, attachments and functions of various skeletal muscles. Physiology of neuromuscular junction.
- 11- Introductory knowledge of various parts of central nervous system, brain, and its parts, function.
- 12- Elementary knowledge of structure and functions of the organs of taste, smell, hearing, seeing vision and feel(touch)
- 13- Elementary knowledge of digestive system, names of the various parts of digestive system and their functions. Structure and functions of liver, physiology of digestion and absorption.
- 14- Primary knowledge of endocrine glands and Hormones. Locations of the glands their hormones and functions. Pituitary, thyroid, adrenal and pancreas.
- 15- Basic knowledge of Reproductive system physiology and anatomy of Reproductive system.

Practical

- 1- Study of the Human skeleton.

- 2- Study with the help of charts and models of the following system and organs.
- Digestive system.
 - Respiratory system.
 - Cardiovascular system
 - Urinary system.
 - Reproductive system.
 - Nervous system.
 - Eye.
 - Ear
 - Nose.
 - Throat.
- 3- Recording of body temperature, pulse, heart rate, blood pressure, Etc.
- 4- Blood and urine analysis.

② ✓ INTRODUCTORY HOMOEOPATHY, BIO-CHEMISTRY & TWELVE TISSUE REMIDES.

- 1- Definition, scope and short history of homoeopathy, Brief knowledge about Dr. Hahnemann and his discovery.

Basic Principal of Homoeopathy

Nature's law of cure with its elaboration, Brief knowledge of theory of vital force, similia, single, simple minimum dose, study of organon of medicine in special relation to scope of Homoeopathic Pharmacy (Aphorism 245-285 etc)

Life sketch of Dr. Schuessler and introduction of his philosophy of Bio-chemic medicine and introduction of twelve tissue remedies.

Practical.

- Preparation of at least 2 Bio-chemic medicines up to 3x potency.
- Preparation of at least 2 Bio-chemic medicines up to 2c potency.
- Identification and qualitative test of Bio-chemic medicine up to 2x potency.

③ ✓ Clinical Pathology and Toxicology

Definition of Pathology- Introduction of pathology of blood and urine, lymphocytes and platelets their role in health and diseases. Erythrocytes abnormal cells and their significance, elementary study of micro-organism.

Abnormal constituents of urine, their significance in disease, Brief understanding of the common term used in pathology inflammation, Edema, Hemorrhage, thrombosis, Embolisms, fever, Dyspnoea, Anemia, Leucocytosis, Leucopenia.

Definition of Toxicology-

Common symptoms of the following group of poisons in brief

- Corrosive poison Acid Alkali
- Irritant Poison-Arsenic, Phosphorus, Mercury, Tntla.
- Cerebral poisons-Alcohol, opium, Dhature, Bhang.
- Animal Poisons- Bees, Wasps, Snakes, Scorpion.

E. Asphyxiant- Carbon monoxide.

General treatment in cases of poisoning and their antidotes.

Practical

- 1- Detection and identification under microscope that abnormal blood cells.
- 2- General blood picture- Abnormality thrombocytes and their significance.
- 3- Analysis of normal and abnormal constituents of blood- Glucose, Urine, Cholesterol, Bilirubin, creatinine, calcium, sodium, potassium, S.G.O.T. S.G.P.T. Phosphate.
- 4- Urine-Routine and microscopic testing to detect sugar, protein, Bile salts, Phosphate, Acetone, pus cells.
- 5- Method of withdrawal of blood samples for testing.
- 6- Procedure to be adopted in sampling the specimen for laboratory test in a case of poisoning.

(4) ✓ **4-HOMOEOPATHIC PHARMACEUTICS & PHARMACEUTICAL CHEMISTRY -I**

- 1- **Pharmacy**- Introduction to Homoeopathic Pharmacy, History of homoeopathic pharmacy, branches of homoeopathic pharmacy-Their application, different terms used in homoeopathic pharmacy.
- 2- **Pharmacopoeia**- Introduction to different pharmacopoeia with special reference to homoeopathic pharmacopoeia of India.
- 3- **Metrology**- system of weights and measures. Calculation including conversion from one to another system. Domestic measures.
- 4- **Pharmaceutical Instruments and appliances** used in a pharmacy and dispensary in preparing and dispensing of Homoeopathic medicines.
 - A. Their uses.
 - B. Their proper upkeep and cleaning
- 5- **Powder and Sieves**- Degree of coarseness and fineness of powder, different grade of powder as given in P.H.I. different sieves, No. of sieves.
- 6- **Neutral substance**- Vehicle-Definition of vehicles. Different type of vehicles used in homoeopathic pharmacy, Their properties, possible impurities, identification and standardization. Knowledge about different machines used in the preparation of the trifications and other vehicles.
- 7- **Study of percolators and maceration apparatuses**-Their modification. Different layers used in a percolator. Method of percolation and maceration.
- 8- **Tablet and Pills**- Different types of tablets and no. of pills. Process involved in the preparation of tablets and pills. Standard in tablets-test for standards including disintegration and dis-solution knowledge about different machines for preparation of tablets etc.
- 9- **Homoeopathic Drug**- A definition, Meaning of New Drug.
 - B- Introduction to different scales for preparing Homoeopathic medicines.

C-Relationship between fifty millesimal and decimal, centesimal potency.

- 10- Type of Containers and closures- Glass and plastic containers. Advantage and disadvantages. Different types of closures- plastic, Rubber, glass, wood.
- 11- Syrup- Method of preparation, uses.
- 12- External applications-Different material used as vehicle for external application, their identification and properties. Different oils, wax, glycerin, Lanolin, Paraffin soft, spermaceti, prepared lard, curd soap, hard soap, soft soap, starch etc.
- 13- Potentisation- Definition, different methods for potentisation, working knowledge of automatic pro potentizer.
- 14- Extraction- Continuous hot extraction. Application in the preparation of extract.
- 15- Distillation- Simple and fractional distillation, steam distillation, preparation of distilled water for dispensing purposes. Type of distillation apparatuses used in their advantage and disadvantages from homoeopathic point of view.
- 16- Drying processes- Study of different dryers used.
- 17- Ideal Pharmacy- space lay out plan space for herbarium, equipment etc.
- 18- Moisture Content- Various methods of determination.

PHARMACEUTICAL CHEMISTRY

- 1- Brief knowledge of chemical symbols and formulae -particularly drugs of common use. Atomic weight of elements.
- 2- Knowledge about common laboratory processes of practical use. A Filtration; B Decantation, C Evaporation.
- 3- Knowledge about physical and chemical changes. Chemical compounds, commonly used in Homoeopathic Iron, Calcium, Potassium, Sodium.
- 4- Quality control of Drugs- Importance and method of quality control, sources of impurities, limit test for Arsenic, Chloride, Sulphate, Iron lead and Heavy metals.

Practical

- 1- Preparation of following-Different techniques involved in preparation of -
A. Distilled water, B. Spirit-OP, U.P. C. extracts, D. Dispensing and dilute Alcohol E. Tablets.
- 2- Identification of appliance and instruments used in Homoeopathic Pharmacy Lab, & Dispensary.
- 3- Estimation of size of Globules.
- 4- Purity test for ethyl Alcohol, Distilled water, sugar of milk, glycerine, tablets.

⑤ 5- HEALTH EDUCATION AND COMMUNITY PHARMACY

- 1- Concept of Health- Homoeopathic concept of health, Definition of physical health, mental health, social health, spiritual health, determinates of health, indicators of health, Homoeopathic concept of disease & health, natural history of diseases, the disease agents, concept of prevention of diseases.

- 2- Nutrition and health- Classification of foods. Natural sources, requirements, diet, Diseases caused by deficiency of Protein, Vitamins & minerals- treatment prevention a short description shall be given.
- 3- Environment and Health- sources of water supply, water pollution, water borne diseases, purification of water, Health and air, noise, light, solid waste disposal and control medical entomology, arthropod borne diseases and their control, rodent animals and diseases.
- 4- Basic knowledge of communicable diseases, their causative agent, mode of transmission as well as methods prevention.
 - A. Arthropod borne infection-Malaria, Filariasis, plague.
 - B. Disease by Ingestion. Enteric fever, Dysentery, cholera, food poisoning, Poliomyelitis, Hepatitis, worm infection.
 - C. Disease by Inhalation- Diphtheria, Measles, chicken pox, Influenza, Mumps, Whooping coughs, tuberculosis.
 - D. Zoonosis - Rabies.
 - E. Contact Disease-I. surface infection -Trachoma, Tetanus, Ring worm.
II Sexually Transmitted, Syphilis, Gonorrhoea, AIDS.
- 5- Basic knowledge of Non-Communicable diseases-Their causative agents, prevention, Curative control cancer, diabetes, Blindness.
- 6- Epidemiology- Its scope, methods uses, Immunization, Immunological products and their dose schedule, Principles of disease control.
- 7- Disinfection - Type of disinfectants and disinfection. Disinfection procedures for faces, urine, sputum, sick room, linen.
- 8- Demography and family planning- Demography cycle, fertility, family planning contraceptives method, behavioral methods, natural family planning method, chemical method, mechanical method, hormonal contraceptives. Population problem of India. Effect of over crowding method of control.
- 9- Health Education- Objects of health education, various methods of health education. Various measures and health programmes run by govt. of India and International health organization, short description of public health laws. Public health administration in India.
- 10- First Aid Emergency treatment in shock, snake bite, burns, poisoning, fracture and resuscitation methods, Elements of minor surgery and dressing.
- 11- Sterilization concept of sterilization detailed study of following sterilization process-
 - A. Sterilization with moist and dry heat
 - B. Sterilization by radiation. C. Gaseous sterilization.

PRACTICALS

- 1- Practical training for immunization programme.

2- Practical knowledge of working of I.D.H.

3- Knowledge about water works deptt. DHP II 77

DIPLOMA IN HOMOEOPATHIC PHARMACY PART II

1-Homoeopathic Pharmaceutics

AND

Pharmaceuticals chemistry II

1- **Extemporaneous Pharmacy-**

- A. Prescriptions- Reading and contents of prescriptions. Meaning of various abbreviations used in prescription.
- B. Posology- Quantity of Homoeopathic doses. Different forms. Dose according to age, doses for sensitive patients- pulsing method. Repetition of doses in acute and chronic diseases.

2- Dispensed Medication- Method of preparation its practical aspect. Labeling etc. use of dispensing balance, dispensing in sugar of milk, dispensing in tablet & pills, dispensing in distilled water and syrup.

3- **Preparation method of following-**

A. Triturations- Definition, method of preparation on decimal and centesimal scale. Advantages and disadvantages, conversion of trituration into liquid potencies- fluxion and straight potency

B. **Tincture and solution-** Method of preparation of Homoeopathic mother Tincture of vegetable and animal products by percolation and maceration method. Mother solution of fifty millesimal scale, and some chemicals with example. Hahnemann's methods its merit and demerits.

4- **Raising the potency-** meaning of drug strength and potency. Method raising the potency of mother tinctures and solutions. Use of potentizer of decimal, centesimal and on fifty millesimal scale, raising the power of fluxion potency.

5- **Preparation of vehicles-** Method of preparation of sugar of milk, tablets, cones. Globules, pills, syrup, ratified spirit and distilled water.

6- Weight and measures.

7- Various constituents in plant substances.

8- Technique of Homoeopathic drug proving

9- Drug, medicine, Remedy,

10- External application.

11- Drug and their abbreviation.

12- Drug with common name. family distribution and part used with their identifications (Microscopical)

PHARMACEUTICAL CHEMISTRY-

Elementary study of Inorganic substances officially used in pharmacopoeia with special reference to their preparation, tests of purity and standardisation.

- 2- Alcohol- Structure , nomenclature, physical properties, standardization, preparation and reaction, some useful Alcohol.
- 3- Ethers- Structure nomenclature, physical properties, preparation and reaction of ether. 8/35
- 4- Fats and oils- waxes, detergents-glycerides, chemistry of fats and oils.
- 5- Carbohydrates- Monosaccharides- Properties of glucose, fructose, glycoside formation.
- 6- Polysaccharides- Disaccharides, sucrose, Lactose, Maltose, starch and cellulose.
- 7- Proteins- Physical properties, Tests and uses.

PRACTICALS

- 1- PREPARATION OF DILUTE AND DISPENSING ALCOHOL.
- 2- Determination of sp. Gr. Of distilled water, alcohol, glycerine and sugar of milk.
- 3- Preparation of trituration of 4 crude drugs up to 2x potency.
- 4- Preparation of trituration of 4 crude drugs up to 2c potency.
- 5- Trituration of 2 drugs upto 6x potency and conversion of it into liquid potency on decimal and centesimal scale.
- 6- Potentiation of 4 mother tincture upto 4x and 2c level.

2-PHARMACOGNOSY ✓

- 1- Introduction- Meaning and scope of pharmacognosy.
Brief history of its development as field of study including different system of classification in pharmacognosy relationship to allied fields of study pharmacopoeias. /
- 2- Sources of Homoeopathic drugs- I. Vegetable kingdom, II Mineral kingdom, III Animal Kingdom, IV Nosodes, V. Sarcodes and VI Imponderbilia, VII Collection of drug.
- 3- Identification, purification and preservation of drug substance.
- 4- Preparation of Mother tinctures.
- 5- Test for purity and authenticity of source material. Aqueous solutions, alcoholic solution, Trituration of liquid substances and trituration of fresh vegetable and animal substances.
- 6- Hahnemannian method of preparation of drugs. Merits and demerits of Hahnemannian and classical methods of preparing drugs. Methods of preparing drugs explained in different pharmacopoeias.
Modern New method of preparation of mother tinctures in three steps namely I. Estimation of moisture contents, II. Maceration and III. Percolation.
- 7- Potentiating Trituration and succession.
- 8- Preparation of various bases and medicinal substances.

PRACTICALS

Identification and preparation of following drugs.

1. Aconite. 2. Alumina. 3. Antimonium Tartaricum. 4. Apsis. 5. Argentum nitricum. 6. Arnica, 7. Arsenicum B. Aurum metallicum, 9. Baptisia, 10. Belladonna, 11. Berberis vulgaris, 12. Bryonia alba, 13. Bufo rana 14. Cact., 15. Calcareo carbonica, 16. Calendula, 17. Cantharis, 18. Causticum, 19. Chamomilla, 20. Chelidonium Majus, 21. china, 22. Cina, 23. 9/35
24. Coccus cacti, 25. coffea. 26. Colchicum. 27. Colocynthis, 28. 9/35
29. Crotalus horridus, 30. Croton tlg, 31. Digitalis. 32. Discorea. 33. -----
34. Dulcomara. 35. Eup. Perf, 36. Euphrasia, 37. Gelsemium, 38. Hamamelis, 39. Helleborus nigr. 40. Hepar sulph, 41. Hyoscyamus, 42. Hydrastis. 43. Hypericum, 44. Ignatia, 45. Ipecaea, 46. Iris, 47. Lachesis, 48. Lobelia, 49. Lycopodium, 50. Mercurius solubilis, 51. Merc. cor, 52. Millefolium, 53. Murex, 54. Naja, 55. Natrum Muriaticum, 56. Nitricum acidum 57. Nux moschata, 58. Nux vomica, 59. Opium, 60. Passiflora, 61. Phytolacca, 62. Podophyllum, 63. Pulsatilla, 64. Rhus toxicodendron, 65. Sangunaria, 66. Sulphur, 67. Thuja.

3-PHARMACEUTICAL JURISPRUDENCE

- 1- Drug action, chemical characters and toxicology of crude drug substance.
- 2- 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.
- 3- Principles and significance of professional ethics. Critical study of the code of conduct behavior with patients their attendants, superior officers, colleagues and subordinate staff.
- 4- Drug and cosmetics Act 1940 and rules 1945 (Corrected upto date 1979)
 - A. General study of drugs and cosmetics act and rules there under.
 - B. Drugs technical advisory board
 - C. Power of inspectors.
 - D. Sampling procedure
 - E. Procedure and formalities for obtaining licences for manufacture for sale of homoeopathic medicine rule 67-85.
 - F. Labelling and packing of homoeopathic medicine.
- 5- Drugs and magic remedies (objectionable advertisement) Act 1954- General study of the act with special reference to be laid on advertisement, magic remedies, objectionable and permitted advertisements. Diseases which can not be claimed to be cured.

- 6- Narcotic drugs and psychotropic substances act 1985- A brief study of the act with special reference to objectives, offences and punishments.
- 7- Brief Introduction regarding following acts-
- Latest drugs(price control) order in force.
 - Poison act 1919
 - Medicinal and toilet preparation(excise duties) Act 1955 (as amended up to date)
 - Medical Termination of pregnancy act 1971(as amended up to date)
 - Medicinal dangerous drugs act and rule 1957
 - Indian evidence Act.
 - Workman commensation Act .
- 8- Brief knowledge of the working of homoeopathic medicine board, Central Council of Homoeopathy and C.C. R.H.

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4-HOSPITAL AND CLINICAL PHARMACY

Part I Hospital Pharmacy-

- definition.
 - function of hospital pharmacy.
 - requirement for hospital pharmacy layout, manpower.
 - minimum equipments required for a pharmacy.
 - Hospital pharmacists-Moto qualities, duties and responsibilities.
 - various licences required for homoeopathic pharmacy or dispensary.
- Knowledge about hospital -Function, different type of hospital, management and health delivery system in India. Private organization indulge in patient care-their limitation.
- Distribution of medicines in hospital-
 - Out patient services.
 - In patient services.
 - System for emergency purchase of medicine not available in the hospital pharmacy limitation.
 - Handling and upkeep of medicine, mother tinctures dilutions and Triturations.
- Knowledge about names and uses of hospital equipments and Instruments and other accessories .
- Knowledge about dressing and other material including their quality tests cotton, gauze, bandage, adhesive tapes, I.V. sets. Catheters, syringes, thermometers etc.
- Knowledge to maintain various records and register used in pharmacy and dispensary.

PART II Clinical pharmacy

- 1- Definition and scope of clinical pharmacy. Classification of disease according to Dr. Hahnemann.
- 2- Different ways of dispensing, storage of medicine, cleanliness and maintenance.
- 3- Role of vital force in health and disease and cure.
- 4- Salient features of psora, sycosis and syphilis- Duration of action of important polychrest medicines.
- 5- Ideal cure, Homoeopathic aggravation, adverse drug reactions, palliation.
- 6- Knowledge about common terminology of important diseases.
- 7- Study of drug addicts -abuse of drugs, homoeopathic treatment, addictive drugs.
- 8- Short history, aims and objects red cross society of India.
- 9- Transportation of sick to safe places /hospital method of carrying an injured person.

PRACTICAL

- 1- Sterilization of various instruments used in dispensing and other hospital supplies.
- 2- Practical knowledge of various type of bandages for wounds and fractures of different parts.
- 3- Practical knowledge of working of computer.

5-DRUG STORE AND BUSINESS MANAGEMENT.

Part I General and commerce.

- 1- Introduction - Trade, industry and commerce, functions and sub-division of commerce, introduction to elements of economics and managements.
- 2- Forms of business organizations.
- 3- Channel of distribution.
- 4- A-Management of drug house-knowledge about selection of site, space, layout and other requirement.
B. Importance and objectives of purchasing credit information, tenders, contracts and price determination and other related legal requirement.
C. Bundling of the drug store and other hospital supplies.
D. Codification- Method and advantage of codification.
- 5- Inventory control- Importance and aim, inventory carrying cost, safety stock, minimum and maximum stock levels, economic order quantity, surplus disposal. Modern techniques adopted.

- 6- Sales promotions market research, qualities of a salesman, advertising and window display.
- 7- Requirement, training, evaluation and compensation of the pharmacist.
- 8- Banking and finance- service and function of bank, finance planning and sources of finances.

Part II Accountancy

- 1- Introduction to the accounting concepts and conversion, double entry, book keeping, different kinds of accounts.
- 2- Cash Book
- 3- General Ledger and trial balance.
- 4- Profit and Loss account and balance sheet.
- 5- Simple techniques of analyzing financial
Introduction to budgeting.

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COURSES OF STUDY

Course of study shall be conducted in an institution duly approved by homoeopathic medicine board, UP

1- Aims and Objects:

The scheme introduced to produce skilled homoeopathic pharmacists of uniform standard for homoeopathic pharmacies/ hospitals and dispensary/ institution. They will be skilled to

- a. Work efficiently as a pharmacist in the hospital, dispensary and pharmacy.
- b. Help in measures adopted by health organizations to prevent diseases.
- c. Educate the society about the various measures to be adopted for promotion of health.
- d. Help the injured by giving first aid.

2- DURATION OF COURSE

The duration of course shall be:

- a. 2 years of Academic Course
- b. The Academic course shall be run in an institution duly approved by the Govt. of U.P. after the recommendation of homoeopathic medicine board, UP, Lucknow. 13/35

3- Commencement of session- The session shall commence each year in the month of July/Aug. Selection of candidates shall be ensured before the month of July.

4- Working Hours-Classes shall run from 10-00AM 4-00 PM every working day. Each academic year shall not be less than 180 working days and not less than 500 hours for practical training, of not less than 3 months duration.

The details of total hours of lectures in a session are given in table 1&2 below-