ELECTRO HOMOEOPATHY
(SYLLABUS)

1.B.E.M.S. I YEAR
2.B.E.M.S. II YEAR
3. B.E.M.S. III YEAR
4. B.E.M.S. FINAL YEAR

Electro Homoeopathy, invented by Dr. Count Caesre Mattei of Italy in 1865 is considered as the V^{th} pathy in the medical science. This pathy is based on the law of nature that can preserve and cure nature's creation. It enables restoration of health to the living beings quickly, gently and permanently. It is entirely different in theory, practice and art of healing than other recognized systems of medicine like allopathy, ayurveda, naturopathy, unani and siddha and has no interrelationship by any means. Being prepared from plants, medicines of this pathy is harmless and can be used internally as well as externally in curing diseases. The pharmacopoea is entirely different than other system of medicine. The medicines are prepared by scientific process called ***cohobation*** which was introduced by Dr. Theophrastus Von Hohneim in which the living energy of plants is extracted as ***"Spagyric essence"***.

Electrohomoeopathic medicines work on Lymph and Blood of the body. The principle operating in disease cure is ***'complexa complexis curanture'***. It is said that disease is caused due to vitiation of lymph and blood and in grave cases at tissue level. Thus, medicines are basically categorized accordingly as scrofoloso, angiotico and conceroso group. Some organic group of medicines categorized as Febrifugo, Pettorale, Lymphatico, Vermifugo, Venario and APP (Aqua Perra Pelli) are also there. The medicines are affordable to common man and has lot of space to introduce new plants in preparation of medicines in different parts of the world. The medicine can be

prepared under standard preparations controlled by German Homoeopathic Pharmacopoea (GHP).

I.E.H. Medical Council has been founded with the aim to propagate and popularize the Electro Homoeopathic Medical Science.

Aims and objectives of the Institution-

The Indian Electro Homoeopathic Medical Council (Uttar Pradesh) is an autonomous educational institute imparting knowledge of Electro Homoeopathy Medical Science & Technology. Its objectives are -

1. To provide Electro Homoeopathic Medical service to the community with special emphasis in rural and hill areas.
2. To popularize its methods in the masses.
3. To train the qualified medical personal in use of E.H.M. science for treatment of complicated and chronic diseases along with available treatments.
4. To save mankind from the abuse of toxic medicines and their reversible side effects.
5. To provide research facilities, to evaluate its utility and limitations.
6. To obtain information, co-operation in the field of E.H.M. research and treatment at large for the benefit of humanity.

Examination

Examination will be held in the month of April / May annually. Date of commencement of examination and scheme will be decided by examination committee.

Medium

All questions will be in English and Hindi and answer of the same can be given in Hindi or English.

Paper

Each theory question paper will carry 100 marks and 3 hours duration. Practical and viva examination will also carry 100 marks each.

Admission Cards

A permission letter issued by the Registrar will compulsorily be required for entry into the examination hall .Admit card and scheme will be issued to all candidates one week before examination date.

Registration certificate

The registration certificate for Electro Homoeopathic Practice will be issued on request of the successful candidates after completion of one year internship. The registration from can be obtained from The Registrar, Indian Electro Homoeopathy Medical Council, Uttar Pradesh, Lucknow.

Facilities and Privileges to the registered Practitioners

1. The registered practitioner is authorized to practice in Electro Homoeopathic system of medicine any where in India and abroad .

2. A registered practitioner shall be entitled to:

(a) Sign or authenticate a medical or physical fitness certificate required by any law or rule to be signed or authenticated by a duly qualified medical practitioner.

(b) Sign or authenticate a birth/ death certificate required by any law or rule to be signed or authenticated by a duly qualified medical practitioner.

Viva Exam

Viva examination will be conducted before or after theory examination. The information of which will be given by center suptt. or Registrar accordingly. All candidates are required to appear in viva examination as well as theory examination compulsorily.

Internship

One year internship in the Electro Homoeopathic Hospital governed by the Electro Homoeopathic Medical College is compulsory.

Result

The result of examination will be declared by the Registrar as per the schedule decided by the examination committee. The result will be published especially in Electro Homoeo darpan or on the website www.iehda.org.

Supplementary examination/ Back paper

Those candidates who are failed in one or two subjects, they can be permitted to appear in supplementary examination. Such candidates are required to submit supplementary examination form. The information of supplementary examination will be given accordingly in time.

Re-evaluation and scrutiny

The answer book may be scrutinised or re-evaluated on the request of candidate within one month by the candidate time after the announcement of result provided that prescribed fee is paid.

Marksheet and Certificate

Marksheet and certificate will be provided to successful candidates by the concerned colleges.

In case, the certificate/marksheet is lost, a duplicate may be issued on request subject to the payment of required fees decided by the council.

B.E.M.S. I PROFESSIONAL

1. **Anatomy I**
2. **Physiology & Biochemistry I**
3. **Pharmacy**
4. **Philosophy**
5. **Community Medicine (P.S.M.)**

ANATOMY I

1. Osteology

General characteristics of bones, parts of skeleton, study of skull including calvaria and base of skull with special reference to prominent foramina, mandible, vertebral column including special features of cervical, thorasic and lumber vertebrae, sacrum, hip bone with formation of pelvis and its applied anatomy.

Bones of super extremity : Clavicle, scapula, humerus, radius and ulna, detailed study and names of carpals, metacarpals and phalanges.

Lower extremity :

Hip bone, femur, tibila and fibula, patella, tarsals, metatarsals, phalanges, thorax; typical ribs with differential study, features of I^{st}, II^{nd} and floating ribs [11^{th} and 12^{th}], sternum.

2. Superior extremity

General study of various parts including their functions and applied anatomy with detailed study of axilla, cubital fossa, muscles-pectoralis major, deltoid, biceps brachii, triceps, brachialis, supinator, pronator, teres qwardratus with muscles of flexor and extensor compartments of forearm hand, its anatomy with special reference to its function and muscles including hypothenar and thenaremenences, branches of sub-clavian artery, nerves of brachial plexus, venous and lymphatic drainage.

3. Inferior extremity

Muscles of gluteal regions, thigh and leg, inguinal canal, femoral triangle, adductor canal, popliteal fossa.

Nerves: Femoral obturator and sciatic, branches and distribution of femoral artery, venous and lymphatic drainage including short and long saphenous veins.

Surface marking of important structures.

Radiological anatomy including age determination and ossification.

4. Embryology

The female genital organs - Ovary, uterine tube, uterus and vagina.

The male genital organs - Testes, seminal vesicles, penis, male urethra, and prostate.

Practicals- Study of bones (osteology), joints, muscles and circulatory system.

1. To provide understanding of the morphological principles which determine and influence living body as a functioning unit.
2. To correlate the anatomy of the human body providing understanding for disturbance of functions.

3. To enable a student to recognize basis of clinical signs and symptoms of disorders.
4. To enable a student to understand the factors involved in the development of pathological process and complications thereof.
5. To give such knowledge of preclinical subject so as to employ competently and rationally all method of examination and treatment [including surgery] involving such knowledge.
6. Major emphasis should be laid on applied anatomy of living subjects, general anatomical position [topography] relations of viscera, muscles, blood vessels, nerves and lymphatics, which would be supplemented with dissection of cadaver.
7. Normal radiological anatomy should also from part of practical training.
8. Actual dissection should be proceeded by a course of lectures on general instructions of the organ or system including its functions.
9. Seminars and group discussions to be arranged periodically with a view of presenting subjects in an integrated manner.

PHYSIOLOGY & BIOCHEMISTRY I

PHYSIOLOGY

1. Cell – Structure including electron microscopic description, nucleus, cell division, chromosomes and various cytoplasmic organelles and their function, mitosis, meosis.
2. Tissue – Epithelial, connective, muscular, nervous and internal environment, extracellular compartments, tissue fluids, oedematus electrolytes.
3. Muscles – Physiology of muscles including skeletal, plane and cardiac muscles, muscular contraction, neuromuscular transmission, rigor mortis.
4. Diet – Various components and their requirements and caloric value carbohydrate metabo1ism, balanced diet, malnutrition.
5. Vitamins – Different types: water soluble and fat soluble, their deficiency and daily requirements including vitamin P and biotin.
6. Minerals – Sodium, potassium, calcium, iron, zinc and magnesium.
7. Digestion – Various parts of digestive system and their functions, study of various juices [composition and function], movements alimentary system, absorption, assimilation, defaecation, functions of liver, pancreas, stomach, enzymes definition and general properties.
8. Respiration – Structure and function of respiratory tract, larynx, anatomy and physiology, mechanism of production of voice, speech, mechanism of respiration, gaseous exchange and tissue respiration, tidal volume, vital capacity, hypoxia, transportation of oxygen and carbon dioxide in blood, respiratory regulations, apnea, dyspnea, cyanosis, effect of altitude- high and low, caisson's disease, mountain sickness, artificial respiration.

BIOCHEMISTRY

- **Carbohydrates**

Classification, importance of pentoses, hexoses, disaccharides, tests for detection (especially Benedict's) of carbohydrates.

- **Carbohydrate metabolism**
  Glycogenesis, glycolysis, TCA or Kreb's cycle, HMP shunt or pentose phosphate pathway, gluconeogenesis, glycogen storage diseases, energy production in catabolism of glucose.
- **Lipids**
  Classification, functions, classification of fatty acids, lipoproteins.
- **Lipid metabolism**
  Chemistry and metabolism of lipoproteins, fatty acid synthesis; beta oxidation, biosynthesis of cholesterol synthesis of phospholipids, lipid storage disorders, hyperlipoproteinemias.
- **Proteins**
  Classification of amino acids, transamination, deamination, decarboxylation, urea formation, disorders of amino acid metabolism, color tests for detection.

Practical: Practicals will be based on the respective topics.

PHARMACY

Definition of pharmacy and it's branches, sources of drugs, collection of vegetable substance, ingredients of medicines, introductory study of 114 plants including natural order, general character, special character, history and description of *Artemisia abrotanum* (Ang.-3), *Arnica montana* (Ang.-1, 3, Pet -4, Canc-6, W.E.), *Avena setiva* (Ang.-1, 2, 3, W.E.), *Aesculus hippocastanum* (Ang.-2, Feb-1, 2,Scrof 10), *Achillea millefolium* (Ang.-2, W.E.), *Adiantum capillus veneris* (Pet.-1, 2, 3, 4), *Allium cepa* (Pet-1, 2, 2, 3, 4, U.E.) , *Aloes capansis* (Slass), *Aconitum napellus* (Feb.-1 Pet-4, RE.), *Ailanthus glandulasa* (Canc-13), *Althaea officinalis* (Ven-1, G.E.), *Atropa belladona* (Scrof.-12, Canc-13), *Allium sativaum* (Ver-1, 2), *Artemisia cina* (Ver-1, 2), *Agaricus muscarius* (W.E.), *Anthemis nobilis* (W.E.), *Berberis vulgaris* (Feb.-1, 2 Scrof. -5, 1C), *Betula alba* (Ven.-1), *Capasella bursa pastoris* (Ang.-1, B.E.), *Cetraria islandica* (Scrof.-10, Feb.-1, 2), *Cinchona calisaya* (Scrof.-10, Feb.-1, 2, B.E.), *Cinchona succirubra* (Scrof.-10, Feb.-1, 2), *Cimicifuga racemosa* (W.E.), *Conium machulatum* (Canc.1,2,3,4,5,6,10,13,15,17, G.E.), *Caulophyllum thlictroides* (Canc.-1), *Carduus benedictus* (Canc.-10), *Chelidonium majus* (Canc.-10, Y.E.), *Cochlearia officinalis* (Scrof.-1,2,3,5,6,10,11,12), *Chenopodium anthelminticum* (Verm.-1), *Cannabis sativa* (Ven.-1), *Clematis erecta* (Ven.-1), *Dictamnus albus* (Ven.-1,2), *Drosera rotundifoiia* (Pett-3), *Daphnae mezerum* (Canc.-3), *Eucalyptus globulus* (Pett.-1,2,3,4, Ven.-1), *Erythraea centsurium* (Feb. 1,2,Scrof.-10,Linf-1), *Echinacea angustifiolia* (Linf.-1), *Euphorbium officanale* (Verm.-1), *Ervum lens* (B.E., G.E.), *Epuisetum arvense* (Canc.-2 (Pett.-2), *Euphrasia officinalis* (Scoff.-12), *Evonymus europacus* (A.P.P.), *Fucus vesiculasus* (Linf.-1), *Gentiana lutea* (Slass), *Glechoma hederacea* (P-2), *Galeopsis ochroleuca* (P-2), *Genista scoparia* (W.E.), *Guajacum officinale* (W.E.), *Hyoscyamus niger* (P-3),

Humulus lupulus (Linf.-1), *Hamamelis virginica* (Ang.-2, G.E.), *Hydrastis canadensis* (Ang 1,2,3 P-3, Scrof. 1,2,3,5,6,10,11,12), *Imperatoria ostuthium* (Ver.-1), *Lycopodium clavatum* (Scrot.-2), *Lobelia inflata* (Scrof.-11), *Ledum palustre* (Canc.-6), *Marsdinia condurango* (Canc.-15), *Melissa officinalis* (Scrof.-11), *Myrthus communis* (Ven.-1), *Malva silvestris* (Ang.-1,3), *Menyanthes trifoliata* (Linf.-1,W.E.), *Matricaria chamonilla* (Scrof.-1,2,3,5,6,11,12), *Nasturtium officinale* (Scrof.-1,2,3,5,6,10,11,12), *Oxalis acetosella* (Linf.-1), *Pulsatilla vulgaris* (Ang.-3), *Phelladrium aquaticuk* (P-1,2,3,4), *Petroselimum sativum* (Canc.-2, W.E.), *Phytalacca decandra* (Canc.-5, G.E.), *Podophyllum peltatum* (Canc.-10, Y.E.), *Papulus alba* (G.E.), *Populus tremuloies* (Canc.-17, Ven.-1, G.E.), *Pinus nigra* (B.E., A.P.P.), *Pinus marilima* (B.E.), *Polygala amara* (P-1,2,3,4), *Pimpinella saxifrag* (Canc.-1,2,3,4,5,6,10,13,15), *Pulmonaria officinalis* (Linf.-1), *Rheum officinale* (Scrof-3), *Rhus aromatica* (Canc-17), *Ruta graveolens* (Ver-1,2, W.E., Y.E.), *Rosa canina* (Ven-1, R.E.), *Rhododendron ferrugineu* (R.E.), *Rosmarinus officinalis* (R.E.), *Rhus toxicodendron* (Canc. 1,2,3,4,5,6,10,13,15,17), *Scrophularia nodosa* (Scrof.-1,2,3,5,6,10,11,12, A.P.P.), *Solidago virgaurea* (Scof.-6), *Sambucus nigra* (Feb.-1,2, Scrof.-10V. E.G.E.), *Salix alba* (Feb. -1,2 Scrof.-10), *Simaruba amara* (Linf.-1), *Simlex medica* (Scrof.-1,2,3,5,6,10,11,12, Ven.-1, A.P.P.), *Sanguinaria canadensis* (Ang.-1,2,3, W.E.), *Scolopendrium vulgate* (Feb.-2), *Spigelia anthelmica* (Ver.-2), *Symphytum officinale* (Canc.-4), *Sanguisorba officinalis* (W.E.), *Salvia officinalis* (B.E.), *Salvia sclarea* (B.E.), *Solanum deucamara* (Ven.-1), *Strychnos nux vomica* (Scrof.-1, Canc.-15,Slass), *Steffenisda elongata* (Ven.-1), *Sempcruivum tectorum* (Can.-3), *Tussilago farfara* (Scrof.-1,2,3,5,6,10,11), *Taxus baccata* (W.E.), *Teucrium scordium* (P-2), *Thymus surpyllum* (Ver.-1), *Tanacetum vulgara* (Ver.-2), *Tilia europaea* (Ven.-1), *Thuja occidentalis* (Ven.-1), *Taraxacum officinale* (W.E., A.P.P.), *Uragoga ipecauanha* (P-1,2,3,4), *Veronica officinalis* (Scrof.-1,2,3,5,6,10,11, Ven.-1), *Viburnum opulus* (Ven.-1), *Vinca minor* (Ven.-1, A.P.P.), *Viscum album* (W.E.), *Vitus vinifera* (R.E., A.P.P.) and *Vincetoxicum officinale* (Canc.-1,2,3,4,5,6,10,13,15,17) used in different Electro Homoeopathy medicines, preparation of drugs, drug prooving, laboratory or dispensing room, apparatus and their cleaning, vehicles (alcohol, water, oil, i.e. olive, til oil, rosemary, glycerine, vaseline, globule and pills, etc), abbreviations used in prescription writing, potentization, dilution, preparation for external application and prescription writing, etc. general knowledge of legislation in relation to Electro Homeopathic pharmacy.

Practical cum viva examination of 100 marks consisting of -

1. Identification and uses of Electro Homeopathic pharmaceutical instruments appliances and their cleaning.
2. Identification of important plants used in pharmacy.
3. Collection of minimum 10 drug substance for herbarium.
4. Purity test of distilled water and sugar of milk.
5. Estimation of size of globules, its medication of milk sugar and distilled water making of doses.

6. Preparation and dispensing of dilution.
7. Preparation of external application.
8. Writing of prescription and dispensing of the same.
9. Visit to a Electro Homeopathic laboratory to study the manufacture of drugs at large scale.

PHILOSOPHY

The advent of Mattei and discovery of Electro Homoeopathy, life history and deeds of Electro Homoeopathic doctors. Dr. Theodor Krauss, Dr. Father Muller, Dr Baldeo Pd Saxena. Dr. S.P. Srivastava and Dr. N.L. Sinha. The study of Mattei's life and work. The scope of Electro Homoeopathy. The school of philosophy that Electro Homoeopathy belongs to life, health disease and indisposition, general pathology of electro homoepathic theory, law of polarity, OD-force, application of medicine on the body based on law of polarity, Electro Homoeopathic dosology, general study of diseases, drug, and diseases, an outline of case taking, differential points in investigation of acute and chronic diseases, temperament, positive and negative doses, action of the drug aggravation and perfect dose. Superiority of Electro homoeopathy and its science and scientific truth, different grades of truth and reality circulation of energy. The advance knowledge of medicine and medicine powers. The highest ideal of cure, knowledge of diseases and prognosis, clinical variety of positive and negative diseases and dose determination, knowledge of hygiene and health, preservation, the conception of life and organism, mental disease and their treatment, mode employing remedies in chronic of already in one or more doses, efficacy and scope of electro homoeopathic remedies, methods preserving the medicinal power of plants, etc.

Practicals :- (1) Fundamental law of Electro Homoeopathy,
(2) Scientific vision of Electro Homoeopathy and
(3) The mechanism of action of Electro Homoeopathy, action of medicine on the body.

COMMUNITY MEDICINE (P.S.M.)

1. Hygiene - Personal and social hygiene, school hygiene, cleanliness, clothing and exercise.
2. Environmental sanitatation
   (a) Definition and importance.
   (b) Atmospheric pollution, purification of air, air sterilization, air borne diseases.
   (c) Water supplies- Sources and uses, impurities and purification, public water supplies in urban and rural areas, standards of drinking water, water-borne diseases.
   (d) Conservancy- Method in villages, town and cities, septic tanks, dry earth latrines, water closets, disposal of sewage, disposal of the dead, disposal of refuge, incineration.

(e) Sanitation of fairs and festivals.

(f) Disinfection- Disinfectants, deodorants, antiseptics, germicides, method of disinfection and sterilization.

3. Air, light and sunshine.

4. Effect of climate: Humidity, temperature, pressure and other meterological conditions, comfort zone, effect of overcrowding.

5. Personal hygiene:- Cleanliness, rest, work and sleep, physical exercise and training care of health in tropics .

6. Food and nutrition:- Food in relation to health and disease, balanced diets, nutritional deficiencies and nutritional survey, food processing, Pasteurization of milk. adulteration of food and food inspection, food poisoning.

7. Natural history of disease .

8. Preventive medicine:- General principles of prevention and control of communicable diseases, Plague, Cholera, Small pox, Diptheria, Leprosy, Tuberculosis, Malaria, Kalazar, Filaria, Common virus diseses, e.g. Chicken pox, infective Hepatities, Helminthis Infection, Poliomyelitis, Common cold, Measles, Enteric fever, Dysenteries and animal diseases transmissible to man.

Their description and methods of preventive spread by droplet, insects, contact, animal fount ries, etc. Electro Homoeopathic point of view regarding prophylaxis and vaccination .

9. Family planning : Demography channels of communication, national family planning programme, knowledge, attitude regarding contraceptives practices, population and growth control.

Practicals: Social medicine, preventive medicine, medical statistics.

B.E.M.S. II PROFESSIONAL

2. **Physiology & Biochemistry II**
3. **Practice of Medicine**
4. **Materia Medica**
5. **Forensic Medicine & Toxicology (Medical Juris. & Toxicology)**

ANATOMY II

Head, Neck, Brain, Thorax and Abdomen

1. **Head and Neck :** Scalp its applied anatomy. facial muscles, muscles of mastication, eye structure including lacrimal apparatus and extrinsic muscles, ear its structure and applied anatomy, nose: nasal cavity including posterior nasal openings and paranasal sinuses, eustachian tube and lymphoid masses. Dentition: (a) deciduous and (b) permanent, pharynx, arterial supply and venous drainage.

Neck - Various triangles of neck, thyroid and parathysroid glands, thymus and muscles of neck with detailed study of trapezius, sternocle idomastoid, ribbon muscles, muscles, branches and distribution of common carotid artery, jugular vein, its tributaries, cervical lymph nodes, salivary glands, phrenic nerves, surface marking parotid thyroid, carotid arteries.

2. **Neuro anatomy :** Brain - Different parts, their nomenclature and function including cerebrum, basal ganglia, internal capsule, cerebellum, ventricles, meninges, circle of willies, cranial nerves, functional area of brain, spinal cord; segments, relation to vertebral segments, spinal nerves, distribution, autonomous nervous system including sympathetic and parasympathetic, applied anatomy of lumber puncture, referred pain spinal anaesthesia, increased intracranial pressures.
3. **Thorox:** Mediastinum, viscera including heart, lungs, trachea, oesophagus thymus and pleura, coronary artery, great vessels, diaphragm and their detailed study.
4. **Abdomern:** [i] Anterior abdominal wall including muscles, quadrants of abdomen, its applied anatomy, inguinal canal, inguinal ring, rectus sheaths.

[ii] Allvi viscera and their descriptions,

[iii] Urogenital organs in male and female,

[iv] Perineum and urogenital diaphragm,

[v] Thoracic duct, azygos vein, inferior vena cava, abdominal aorta branches, portal system, and

[vi] Lumbosacral plexus, autonomic ganglia, vagus nerve and applied anatomy.

Practical -

[A] Viva and identification of bones, models, charts carrying 80 marks.

[B] Surface marking of 10 marks.

[C] Drawing book of 10 marks.

PHYSIOLOGY & BIOCHEMISTRY II

PHYSIOLOGY

1. **Excretory system:** Structure and function of kidney, mechanism of formation of urine, physical and chemical composition of urine, common abnormal ingredients of urine and their detection with its applied physiology of renal functions tests, physiology of micturition.
2. **Cardio vascular system: A. Heart:** structure and function of heart, cardiac cycle, heart sound, apex beat, coronary circulation, its relation to heart attack, electrocardiogram, conduction system including S.A. node, bundle of His, purkingje fibre, heart block, blood circulation.
   Structure and function of artery, vein and capillary, pulse, blood pressure.
   B. Blood: Composition and function of blood, blood cells, its different types, coagulation of blood, blood group, Rh factors and importance.
3. **Reproductive system:** Structure and functions of various male and female reproductive organs, secondary sexual characters, puberty, menstruation, menopause, structure and function of breast, fertilization of ovum, prostate gland.
4. **Nervous system:** Structure and function of nerves and their different types, sensory and motor nerves and their functions, synaptic transmission, cerebrospinal fluid: its compositions and function, circulation, structure and function of cerebrum, cerebellum, medulla, spinal cord, autonomic nervous system, short description of sympathetic and parasympathetic nervous system, reflex action, conditioned reflex, sleep, area of brain, pyramidal and extra-pyramidal pathways.
5. **Endocrinology:** Structure and function [both normal and abnormal] of thyroid, parathyroid, suprarenal, pituitary, pancreas, testes and ovary.
5. **Special senses:** a. Eye - Structure and function of different coats, errors of refraction and their correction, mechanism of accommodation, color vision, color blindness, visual field and visual pathway.
   b. Hearing - Structure and function of middle ear and internal ear, conduction of sound waves, vestibular apparatus and its importance, balancing.
   c. Taste and smell – Varieties of tongue papillae, nerves of taste, olfactory nerve.
   d. Skin – Structure and function of skin including sweat glands, various sensory organs, body temperature and its regulation.

BIOCHEMISTRY

- **Nucleoproteins**
  Biosynthesis of purine, pyrimidine, metabolism of nucleic acid.

- **Enzymes**
  Classification, substrate, coenzymes, isozymes, holoenzymes, activators, Michaelis constant, antienzymes, competitive and non-competitive inhibition.
- **Vitamins**
  Classification, coenzyme activities, physiological functions, rhodopsin, Vitamin A cycle.
- **Mineral metabolism**
  Functions of principal minerals (calcium, magnesium, sodium, potassium, phosphorus) and trace elements (iron, copper, zinc, iodine, manganese, cobalt).
- **Blood**
  Composition, heme synthesis, breakdown of hemoglobin, porphyria detoxification.
- **Miscellaneous**
  Hormones, buffer system, prostaglandins, carcinogens, biophysics.

Practical and viva-voce:

1. Use of common physiological instruments and appliances e.g. Hb meter, sphygmomanometer.
2. Identification of histological specimen of tissues and organs, bone, cartilage, fibrous tissue, veins, arteries, lungs, appendix, fallopian tube, cross section of spinal nerve, lymph, spleen and kidney [any 2 slides].
3. Preparation and staining of blood films total and differential count of blood cells.
4. Hemoglobin estimation.
5. Laboratory note book.

PRACTICE OF MEDICINE

I. The digestive system

Examination of tongue : glossitis, leukoplakia, stomatitis, dysphagia, ptyalism or excessive salivation, secondary supporative parotitis, pharyngitis, oesophagitis, stenosis or stricture of the oesophagus, dilatation and diverticulum of the oesophagus, cancer of oesophagus, rupture of oesophagus, syphilis and its malformations, gastritis, phelegmonous gastritis, toxic gastritis, achylia gastrica, achlorhydria hemorrhagica gastrica, hyperchlorhydria, gastrosuccorrhea, peptic ulcer, duodenal ulcer, cancer of stomach (gastric ulcer), hematemesis, gastric cramp, anorexia, constipation (costiveness), cyclic vomitting, hi-cough, catarrhal enteritis, appendicitis, tuberculosis of the intestines, hemorrhoids, peritonitis, cirrhosis of liver, hepatitis, jaundice, ascites, liver abscess, mucous colitis, billary calculi, fatty liver, syphilis of liver, anomalies of liver, amyloid liver, cancer of the liver and the bile ducts, hyperemia of liver, hypertrophic cirrhosis, acute pancreatitis, cancer of the pancreas, stones of pancreas, haemorrhage of pancreas, flatulence, colic, fissures of anus, rectitis, prolapsus of anus, hiatus hernia, diverticulities coli.

II. Hemopoietic system and blood diseases

Spleen, congestion of spleen, enlargement of spleen, leukaemia, splenic anaemia, wandering spleen, anaemia, hodgkins disease, purpura, hemophilia.

III. Diseases of the respiratory system

Sputum examination, acute rhinitis, chronic rhinitis, hay fever, epistaxis, acute laryngitis, chronic laryngitis, oedema of larynx, tuberculosis of the larynx, syphilis of larynx, paralysis of the larynx, acute bronchitis, chronic bronchitis, haemoptysis, bronchiectasis, fibroinous bronchitis, bronchial asthma, pulmonary emphysema, pneumonias, supporative pneumonia (lung abscess), pneumokoniosis, pulmonary oedema, pulmonary congestion, gangreme of the lungs, cirrhosis of the lungs, pulmonary atelectasis, hemothorax, hydrothorax, pneumothorax, tropical eosinophilia, bronchogenic carcinoma, pleurisy, ARDS, pulmonary fibrosis.

IV. Diseases of the ductless glands

Lymphatism, goitre, exophtbalmic goitre, cretinism, myxedema, tetany, addison's disease, diseases of the spleen, splenic anaemia, movable spleen acromegaly, pituitary dwarfism, diabetes insipidus, diabetes mellitus.

Practical and viva-voce: will be based on above topics.

MATERIA MEDICA

Introduction, definition of materia medica, advantage, origin of Electro Homoeopathy, principles of Electro Homoeopathy, source of Electro Homoeopathic medicines, polarity in human body, temperament, lymphatic, sanguine, bilious, nervous and mixed, potentization of medicines, anomalies in lymph and blood and disease, purpose of mixing Electro Homoeopathic medicines, ingredients in major Electro Homoeopathic medicines, classification of Electro Homoeopathic medicines in general.

Practical and viva-voce: To learn basic laboratory technique for plant identification, collection, cohobation technique and dilution.

FORENSIC MEDICINE AND TOXICOLOGY
(Medical Jurisprudence & Toxicology)

The course consist of a series of lectures and demonstrations including:

1. Legal procedure- Definition of medical jurisprudence, courts and their jurisdiction.

2. Medical ethics- Law relating to medical registration and medical relation between practitioner and the state. The codes of ethics the practitioners and the patients mal- practices covering professional secrecy, the practitioner and the various legislation [Acts], provisional and union such work man's compensation act, public health act, injuries act, child marriage registration act, borstal school act, Indian evidence act, etc.

3. Forensic medicine –

[i] Death –Chief forms of unnatural deaths.

Accident, suicide, homicide, poisoning, sudden death, signs of deaths, post mortem lividity, rigor mortis, putrification, mummification, time elapsed since death, post mortem examination in medicolegal reports and certificates.

[ii] Identification of leaving and dead age in it's medicolegal aspect, teeth ossification, union of important epiphysis, sexual characteristics of skeleton.

[iii] Wounds and varieties, distinction between ante and post mortem suicidal and homicidal wound, causes of death from wounds, injuries of special region.

[iv] Death from asphyxias- Hanging, strangulation, suffocation, drowning and shooting.

[v] Death from burns, scalds, heat, cold, electric discharge and starvation.

[vi] Signs of virginity, rape and sodomy.

[vii] Signs of pregnancy-Quickening period of human gestation, viable signs of delivery, recent and remote.

[viii] Criminal abortion and infanticide signs of live birth, signs of death from violence and criminal neglect or omission.

4. Toxicology-

[i] Poisons diagnosis of cases of common poisoning.

[ii] Mineral acid, corrosive sublimate, arsenic and compounds, alcohol, opium and it's alkaloid, carbolic acid, carbon dioxide, kerosene oil, dhatura, cocaine, acid, lead poisoning.

5. Medico legal post mortem-

Regarding post mortem appearance forwarding materials to chemical examiners, interpretation of laboratory and chemical examiners findings, students who are attending a course of lecture in forensic medicine should avail themselves of all possible opportunities of attending medico legal post mortem conducted by the profession forensic medicine. It is expected that each student should attend at least 10 post mortem.

6. Demonstration-

[i] Weapons,

[ii] Organic and inorganic poisons,

[iii] Poisionous plants, and

[iv] Charts, diagram, models, x- ray, etc. of medicolegal interest.

Practical -

Forensic medicine and toxicology based experiments.

B.E.M.S. III PROFESSIONAL

1. Obstetrics & Gynecology I
2. Pathology I
3. Pathology II
4. Otolaryngology (E.N.T.)
5. Materia Medica I
6. Practice of Medicine I

OBSTETRICS & GYNAECOLOGY I

GYNAECOLOGY

1. Anatomy of female genital and other pelvic organs, male genital organs, embryology of urogenital organs, gametogenesis, human genetics, sexual act, sex determination.

2. Physiology, reproductive endocrinology, physiology of menstruation, puberty, adolescence, sex education, clinical features of menstruation, climacteric and menopause.

3. Gynecological case taking, diagnostic methods, cytology, colposcopy, hysterosalpingography, pelvic endoscopy, sonar, CT scan, endocrine assay.

4. Menstrual disorders, diagnosis of sex, intersexuality, hirsutism, virilism.

5. Congenital anomalies in the female genital tract.

6. Infertility, disorders of sexual functions, retroversion hypertrophy and elongation of cervix, genital prolapse.

7. Old complete perineal tear, rectovaginal fistula, chronic inversion of the uterus.

8. Urologic disturbance in gynaecology, pelvic infections.

9. Benign tumours of the genital tract, general malignancy any radiology and chemotherapy, ovarian tumour, broad ligament tumour.

10. Leucorrhoea, prurities, vulvae and vulvae ulcer.

11. Gynaecological operations, post operative care and complications.

12. Sex hormones and harmone therapy in gynaecology, contraceptions.

Practical- Obstetrics and pediatrics, treatment with Electro Homoeopathy medicines.

PATHOLOGY I

1. General Pathology -

1. Introduction, definition, various laboratory techniques and microscopy.
2. Health and diseases: Definition, aetiology of diseases.
3. Inflammation: Its concept, various phases and clinical manifestation, its aetiology types, acute and chronic repair including fibrosis, suppuration.
4. Disturbances of circulation: Hyperkinemia, thrombosis, embolism and oedema.

5. Degenerative tissue changes: Atrophy, cloudy swelling, degenerations, necrosis and gangrene, infiltrative disorder.
6. Regenerative tissue changes: Hypertrophy, hyperplasia, healing.
7. Proliferative tissue changes: Tumors, their aetiology, classification.
   [a] Benign- Fibroma, myoma, lipoma, osteoma, chondroma.
   [b] Malignant- Carcinoma, sarcoma, lymphoma, melanoma.

2. Bacteriology-

Morphology, growth and pathogenesity of the following bacteria- *Staphylococcus*, *Pneumococcus*, *Gonococcus*, *Corynebacterium diptheri*, *Mycobaterium tuberculosis*, *Clostridium tetani*, *Salmonella typhi*, *Shigella dysaentriae*, *Vibrio cholerae*, *Treponema palliedum* [syphilis], *Pseudomoas*, *E.coli*.

3. Parasitology-

Plasmodium vivax, *Ascaris lumbricoides*, *Ankylo stomaduo-denale oxyuris*, *T.solium*, *Waucheria bancraftai*, *Leishmania monovani*, *Tricomonas vaginalis*, *Giardia lamblia* and *Echinococcus granulosus*.

Practical and viva-voce: Study of slides, use of microscope.

PATHOLOGY II

1. Virology-

Small pox, measles, influenza, herpes zoster, poliomyelitis, encephalitis infective hepatitis, rabies.

2. Immunity-

[i] Types of Immunity- Natural, acquired, active, passive, phagocytosis, opsonin bacteriolysis antitoxin, agglutinin, antigen, antibody reaction, allergy and hypersnsitivity, reaction anaphylactic shock.

3. Special pathology-

[i] Diseases of blood- Anaemia, various types, clinical features, hematocrit values, chlorosis, leukaemia.

[ii] Dseases of circulatory system- Pericarditis, pericardial effusion, rheumatic heart disease, bacterial endocarditis, syphilitic aortitis, arterio- sclerosis, aneurism, myocardial infarction.

[iii] Diseases of nervous system-Meningitis, encephalitis, brain abscess, brain tumour, syphilitic affections, general paralysis of insane [G.P.I.] and tabes doraslis, parkinsonism.

[iv] Diseases of respiratory system – Chronic bronchitis, emphysema, pulmonary tuberculosis, pneumonitis, primary complex, pneumoconiasis, pulmonary infarction bronchiatasis lung abscess, pleuritis, pleural effusion, emphyema, thorasic, bronchogenic carcinoma, tropical pulmonary eosinophihlia.

[v] Diseases of urogenital system – A. Glomerulo nephritis, nephrotic syndrome, pyelonephritis, renal tuberculosis, nephrolethiasis, nephrocalcinasis, perinephric abscess, tumours, nephroblastoma (Wilm's tumour), hypernephroma, polycystic kidney.

B. Ueter – Calculus, hydroureter.

C. Bladder – Cystitis, calculus, pappileoma, carcinoma.

D. Urethra – Gonococcal urethritis, structure of urethra.

E. Prostate – Beingn hyperplasia of prostate and carcinoma of prostate.

F. Penis – Balanoposthitis, carcinoma of penis.

G. Orchitis, filarial, post mump tuberculosis, testicular tumour.

H. Female genital system – (i) Ovary-cyst and tumour, (ii) Fallopian tube-salpingitis, pyosalpings and tuberculosis.

I. Uterus - fibroid, carcinoma

J. Cervix – Erosion, carcinoma of cervix

K. Vagina – Vaginitis and tumour.

4. Alimentary Tract -

Stomatitis various types, Vincent's angina, glositis cheilosis, leukoplakia,carcinoma of tongue, pharyngitis oesophagatis peptic, achaliasia cardia carcinoma of oesophagus.

Gastritis – Peptic ulcer, zollinger, ellisons syndrome carcinoma.

Intestine – Enteritis, cholera, typhoid, tubercular, Crohn's disease, amoebic typlitis, amoebic colitis, ulcerative colitis, carcinoma of colon, diverticulitis.

Hepatobiliary system – Cirrhosis of liver, jaundice, hepatocellular, haemolytic, obstructive, amoebic liver abscess, viral hepatitis, hepatoma, choleocystitis, cholelithiosis, carcinoma mucocoel, empyema, gall bladder.

Practical and viva-voce examination of 100 marks consisting of -

1. Twenty demonstrations of histologicalslides of pathological tissues and organs.
2. Twenty demonstration of microscopic speciments of pathogenic organism.
3. Twenty demonstrations of technique of collection and preparation examination of morbid materials such as blood, urine, pus, sputum and exudates demonstrations to run concurrently.

OTOLARYNGOLOGY (E.N.T.)

1. Prominent diseases of ears: Anatomy of the ear, physiology of hearing.

2. Diseases of the ears: Deafness, acute otitis media, chronic otitis media, acute mastoiditis, complications of the otitis media, perisinus abscess, lateral sinus thrombosis, masked sinus thrombosis, cavernous sinus thrombosis, otitic intracranial hypertension, otitic septicaemia, labyrinthitis.

3. Intracranial complications of otitis media: Extra dural abscess, temporal lobe abscess, cerebellar abscess, meningitis, petrositis, tumours in the ear, syphilis of the ear, tinnitus, concussion deafness, giddiness, vertigo - benign positional vertigo, vestibular neuronitis, lateral medullary syndrome, drug toxicity, psychogenic vertigo, epidemic vertigo, vertebra-basilar ischaemia, nuchal vertigo, episodic vertigo of childhood. Neurat affections of the ear - eighth nerve tumour, facial paralysis, herpes zoster oticus. otorrhoea, otalgia.

4. Prominent diseases of the nose: Anatomy of nose in brief, physiology of nose, symptoms of nasal disease, diseases of nasal septum- haematoma of septum, abscess of the septum, perforations of the septum. Diseases of the vestibule - dermatitis, boils in the nose, tumours. Diseases of nasal cavity - acute rhinitis, purulent rhinitis, membranous rhinitis, chronic rhinitis, atrophic rhinitis, rhinitis sicca, ozaena, allergic rhinitis, vasomotor disorders of nose, nasal polypi, foreign bodies in the nose, epistaxis, new growths in the nose, syphilis of nose, tuberculosis of nose (lupus), diphtheria of nose, malignant granuloma, Wegener's granulomatosis. nasal accessory sinuses, mucocele, tumours of the sinuses, cancer of the sinuses, cysts, orbital abscess and cellulitis, oro-antral fistula, acute dental abscess, facial pain and headaches.

5. Prominent diseases of the pharynx, i.e., Throat: Brief anatomy of the pharynx, muscles of the pharynx - adenoids, tonsillitis, pharyngitis, Ludwigs angina, diphtheria, vincent angina, erysipelas, herpes of soft palate, agranulocytosis, peritonsillar abscess (quinsy), peritonsillar abscess (quinsy), retropharyngeal abscess, lingual tonsil abscess, chronic pharyngitis, atrophic pharyngitis, tuberculosis of the pharynx, syphilis of the pharynx, pemphigus of the pharynx, tumours of the pharynx - (a) cysts of the pharynx (b) hyperaesthesia of the pharynx, paraesthesia, glossopharyngeal neuralgia.

6. Diseases of larynx: Brief anatomy of larynx, muscles of the larynx, nerve supply, blood supply, functions of the larynx and development of larynx - acute laryngitis, acute epiglottitis, acute laryngo – tracheo bronchitis, acute oedema of larynx, laryngeal diphtheria, acute membranous laryngitis, perichondritis, chronic laryngitis, syphilis of larynx, tuberculosis of larynx, paralysis of larynx, pachydermia, innocent tumours of the larynx, cysts, polypus of the larynx, leukoplakia or hyperkeratosis of larynx, contact ulcer, hyperaesthesia, paraesthesia, anaesthesia, congenital laryngeal stridor, branchial cyst, thyroglossal cyst, branchial fistula, thyroglossal fistula, tumours of parotid gland, metastatic cancer.

Practicals- Diagnosis and treatment of ear, nose and throat diseases with Electrohomoeopathy medicines.

MATERIA MEDICA I

1. Introduction of Electro Homoeopathy.
2. Principles of Electro Homeopathy.
3. Development of Electro Homoeopathy.
4. Life history Dr. Count Ceaser Mattei.
5. Principle of nature.
6. Principle of 'Od' Force.
7. Difference between Homoeopathy and Electro Homoeopathy.
8. Causes of diseases.
9. Temperament [constitution].
10. Classification of remedies and dosology.

11. Scrofoloso no. 1 to 12, Slass & S.Y. (S_1 – S_{12}, SLass & Sy.)
12. Linfatico no. 1 & 2. (Li & L_2).
13. Angiotico no. 1, 2 & 3. (A_1, A_2 & A_3).
14. Pettorales no. 1–9. (P_1 – P_9).
15. Vermifugo group no. 1 and 2. (Ver 1 & Ver 2).
15. Canceroso group no. 1–17 (C_1 – C_{17}).
17. Febrifugos no. 1 & 2. (F_1 & F_2).
18. Venerio group (Ven1 to Ven5).
19. Electricities-White, Red, Green, Yellow and Blue.
20. Aqua Perla Pelli [A.P.P].
21. Electro Homoeopathic injection nos. 1 to 36.
22. Electropathy externals- Electro- Homoeopathic ointments, Red Salve, S5, Blue Salve A2 or A3, Green Salve Canceroso no.5 White Salve Canceroso no. 5.
    [B] Yellow Salve vermifugo. mixed ointments: abscess, chest pain cure, anti scabies, meltone.
23. Important points in body to which electricities and ointments should be applied.
24. Diseases aetiology, symptomatology doses and dilution, reaction and treatment.

PRACTICALS

1. Description of E.H. medicines.
2. Science based Electro Homoeopathy.
3. Classification of patient according to temperament.
4. Medicinal process.
5. Electro Homoeopathy medicinal plants.
6. Organic medicines of Electro Homoeopathy.
7. Important points in human body for external application of electricities.

PRACTICE OF MEDICINE I

I. Infectious diseases

Introduction, simple fever, septic poisonings, erysipelas (St. Anthony's fire), tonsilitis, measles, german measles, small pox, chicken pox, vaccinia, mumps, whooping cough, typhoid fever or enteric fever, typhus fever, relapsing fever, malaria, malta fever, dengue fever, yellow fever, scarlet fever, cholera, dysentry (amoebiosis), cerebro spinal fever or spotted fever, diptheria, glandular fever, influenza, rheumatic fever, acute anterior poliomyelitis, tetanus, plague, lobar pneumonia, tuberculosis of the lungs, leprosy, syphilis, gonorrhoea, actinomycosis, tetanus, anthrax, foot and mouth diseases, milk sickness, hydrophobia, glanders, verruca, psittacosis.

II. Skin diseases

Introduction, acne, black heads, albinismus, alopecia, boils, callus corns, canser of the skin, canities, carbuncle, chloasma, dermatitis, ecthyma, eczema, erythema, erythema multiforme, erythema nodosum, fibroma, elephantiasis, freckles, herpes simplex, herpes zoster, urticaria, hirsuties, prurigo, pruritus, scabies, ichthyosis, impetigo contagiosa, keloid, leucoderma, lichen planus, lichen scrofulosus, lipomata, lupus erythematosus, lupus vulgaris, medicinal eruptions, molluscum contagiosum, nail affections, psoriasis, prickly heat, sycosis (barber's itch), warts, tinea, tenia versicolor, moniliasis, seborrhea, seleroderma, sweet glands, vermin, wens.

III. Diseases of the heart and blood vessels

Pericarditis, endocarditis, myocarditis, dilation of the heart, bradycardia, tachycardia, palpitation of heart, hypertrophy of heart, stoes-adams disease, angina pectoris, arterio-sclerosis, aneurism, phlebitis, hypertension, cardiac failure, shock, atrial fibrillation, auricular flutter,

IV. Mental diseases and psychiatry

Introduction, psychosis - (a) schizophrenia, (b) drepression, (c) mania, (d) involutional psychosis. Psychoneurosis - (a) anxiety neurosis, (b) phobic neurosis, (c) obsessive compulsive neurosis, (d) hysteria, (e) depressive neurosis. Psychomatic illness, personality and character disorders - (a) pschopathy, (b) sexual anomalies, (c) drug addiction, (d) alcoholism. mental deficiency, psychiatric disorders, epilepsy, psychiatric problems of old age, general paresis, chronic hydrocephalus, abscess of brain, brain tumours, paranoia, dementia, idiocy, mental debility, moral insanity, (a) fever deliria, (b) collapse deliria (c) subacute states of delirium. Korsakoff's disease, hebephrenia, catalepsy, neurasthenia and psychathenia, apoplexy, heat affections, pachymeningitis, leptomeningitis, tubercular meningitis, traumatic neurosis, multiple sclerosis of brain, katatonia.

Practical and viva-voce: Patient diagnosis and use and selection of proper remedy, monitoring of case study.

B.E.M.S. FINAL PROFESSIONAL

1. **Obstetrics & Paediatrics II**
2. **Ophthalmology**
3. **Materia Medica II**
4. **Iridology**
5. **Practice of Medicine II**
6. **Surgery**

OBSTETRICS & PAEDIATRICS II

(Obstetric Including Neonatology & Family Welfare)

1. Anatomy of female reproductive organs - External genitalia, internal genital organ, female urethra, the urinary bladder.

2. Fundamentals of reproduction - Gametogenesis, ovulation, fertilization, morula, implantation, the decidua, chorion and chorionic villi, development of inner cell mass.

3. (i) Normal pregnancy - Amnion chorion, decidua, placenta, umlical cord, foetal circulation, general physiology.

(ii) Abnormal pregnancy - Toxaemias of pregnancy, hyperemesis gravidarum, acute, yellow atrophy of liver, eclampsia, preeclamptic toxaemia, antepartum haemorrhage I & II trimesters, ectopic gestation, hydatiform, mole, abortion, pregnancy, heemorrhage during IIIrd trimester, placenta praevia, accidental haemorrhage, diseases of membrane, hydramnious, oligohydramnious, epithelioma and diseases associated with pregnancy.

4. Physiological changes during pregnancy - Cutaneous changes, weight gain, body water metabolism, haematological changes, heart and circulation, metabolic changes, systemic changes.

5. Diagnosis of pregnancy - First and second trimester, last trimester, differential diagnosis of pregnancy, chronological appearance of specific symptoms and signs of pregnancy, estimation of gestation, age and prediction of expected date of delivery, estimation of total weight.

6. Vomiting in pregnancy - Vomiting of pregnancy, hyperemesis gravidarum.

7. Multiple pregnancy, hydramnios and abnormalities of placenta and cord - Twins, triplets, quadruplets, polyhydramnios, oligohydramnios, abnormalities of placenta and cord.

8. Normal labour - (i) Stage of labour, (ii) Anatomy and physiology of labour, (iii) Mechanism of normal labour, (iv) Management of normal labour.

9. Abnormal labour.

10. Uterine inertias - Primary and secondary.

11. Puerperium - Physiology of puerparium, management of puerperium, disorder of puerperium.

12. Neonatology - (i) Normal neonatal physiology,

(ii) Neonatal asphyxia,

(iii) Premature infant.

13. Breast feeding - Artificial feeding, premature infant, obstetric injuries and disease of new born, diseases and death of foetus, foetal asphyxia, causes of foetal death, normal physiology of new born baby, apgar score, physiological jaundice. erythro blastosis foetalis.

14. Obstetric operation - M.T.P. Induction of labour, episiotamy, versions, forcepts delivery, caesareian section.

15. Family planning - Its importance, different methods of family planning and their application, vasectomy, tubectomy.

PAEDIATRICS

1. Growth and development - Assessment of growth (parameters at birth, weight, height, skull circumference change), important milestones, sexual maturation, behavioral problems (enuresis, stammering, etc).

2. Nutrition - Vitamins (sources, amount required, deficiency), energy and nutrient requirements (with age), kwashiorkar, marasmus.

3. Newborn - Assessment of maturity (signs, reflexes), prematurity, IUGR, APGAR score, hyperbilirubinemia, respiratory distress syndrome, congenital malformations.

4. Haematology - Anaemias (iron deficiency, megaloblastic, aplastic, hemolytic), sickle cell anaemia, thalassemia, purpura, hemophilia.

5. Immunity - Immune deficiency, immunization, common infections (TB, malaria, leprosy, diphtheria, polio, hepatitis, typhoid), fluid and blood requirement.

6. GIT - Congenital lesions (pyloric stenosis, hiatus hernia, anal atresia, hirschsprung's disease), cystic fibrosis, indian childhood cirrhosis, hepatosplenomegaly.

7. CVS - Congenital lesions (cyanotic and acyanotic), CHF, rheumatic fever, hypertension, pericarditis, normal changes with age.

8. Respiratory Tract - Wheezing, stridor, dyspnoea, asthma, bronchiolitis, bronchiectesis, common pneumonias, lung function tests.

9. Urinary tract - Renal physiology (function tests), GN, PN, nephrotic syndrome, hemolytic uraemic syndrome, ARF, CRF.

10. CNS - Meningitis, Reye's syndrome, SOL (tumors, tuberculomas), epilepsies cerebral palsy, mental retardation, myopathies, juvenile rheumatoid arthritis.

11. Endocrine - Cretinism, hypothyroidism, diabetes mellitus, hypoglycemia, short stature, congenital adrenal hyperplasia, delayed puberty.

12. Miscellaneous - Leukemias, lymphomas, syndromes (Down's Klinefelter, Turner's), neuroblastoma, phenylketonuria, maple syrup disease. homocystinuria, common poisonings, drugs (uses, side effects, tera-togenicity).

Practicals: Based on concerned topics.

OPHTHALMOLOGY

1. Anatomy of the eye ball including lachrymal apparatus, structure of conjunctivea, cornea, ciliary body, choroid and retina.
2. Elementary Physiological optics- General optical principles
   [i] Dioptric system of the eye, and
   [ii] Cardinal points of eye.
3. Refraction of the eye [only brief study] -
   [i] Immetropia, [ii] Ammetropia, [iii] Hypermetropia, [iv] Myopia,
   [v] Astigmatism, [vi] Accommodation, its mechanism, amplitude and range, refractive errors and their correction.
4. External examination of the eye, function of the eye.
5. **Diseases of conjunctiva:** Conjunctivitis – It's classification, simple, acute, purulent, gonorrhoeal and its complications; ophthalmia, neonaturum phlyctenular simple chronic follicular and trachomtus its complications pterygium.
6. Diseases of the cornea inflammation [keratitis], ulceration of cornea, hypopyon ulcer, phlyctenular keratitis, neuroparalytic keratitis, intestail keratitis, anterior staphyloma, keratoglobus.
7. Injuries to the eye tanophalnitis and sympathetic opthalmia.
8. **Diseases of the lids:** Oedema of the lids, inflammation of lids, blepharitis, syphilis of eye lids - (a) hordeolum or stye, (b) hordeolum internum, chalazion (CHALAZ ION), blepharospasm, trichiasis, entropian, ectropian, blepharophimosis, symblepharon, ankyloblepharon, ptosis, mysthenia gravis, tumours of the lids and other allied disorders, burns, wounds, contussion of the eyes, distichiasis.
9. **Diseases of the lacrimal apparatus:** Dacryocystitis
10. **Diseases of the orbit:** Orbital cellulitis
11. **Preventive ophthalmology:** Blindness, ecchymosis, asthenopia, amplyobia, amaurosis, persciopic

Practicals - Diagnosis and treatment of eye diseases with Electro Homoeopathy medicines.

MATERIA MEDICA II

Concordant remedy, inimical remedy, prophylactic remedy, introduction to acute and chronic cases, selection of a remedy, posology, methods of division of diseases (preventive, palliative curative, sphere of action), constitutional relations, physiological and biochemical action, description and properties. Study of different dilutions, supplementary and complimentary remedies, uses of dry pills, doses, internal and external application, composition and action of – S_1, S_2, S_3, S_4, S_5, S_6, S_7, S_8, S_9, S_{10}, S_{11}, S_{12}, S. Lass, Synthesis. A_1, A_2, A_3, F_1, F_2, Ven_1, Ven_2, Ven_3, Ven_4, Ven_5, L_1, L_2, R.E. B, E., G.E., A.P.P., I_1, I_2, IF_3, I_4, I_5.

Composition, action, indication, contraindication and detailed study of P_1, P_2, P_3, P_4, P_5, P_6, P_7, P_8, P_9 Ver_1, Ver_2, C_1, C_2, C_3, C_4, C_5, C_6, C_7, C_8, C_9, C_{10}, C_{11}, C_{12}, C_{13}, C_{14}, C_{15}, C_{16}, C_{17}, Y.E., W.E., R.E., B.E., I_1, I_2, IF_3, I_4.

Practical and viva-voce: Constitutional study of patients and use of different group of medicines.

IRIDOLOGY

Discovery and history of iris science. Dr. Peczley and his mode of treatment, the world famous iris diagnosis experts Dr. Liljilquist, Dr Thiel, Dr Fastor Felke, Dr. Henry Lindlahr, Dr. Henry Lahn, Dr. V.N. Davidson, T. Kriege and their contribution with iris science.

A. Basic concept -

1. Iridology
2. Anatomy of iris
3. Explanation of the key to iridology
4. A uniform division and classification of disease
5. Density of the iris
6. Nerve rings
7. The scurf rim
8. Itch or psora spots in the iris,
9. Comparison of fermentation to inflammation
10. Signs of inorganic minerals in the iris of the eye
11. Signs of poisons in the eye –

Mercury, Hydrargyrum or quicksilver, cinchona-quinin, iodine, ichthyol, lead, krozote, arsenic, ergot, sulphur, bromids, iron, coal tar products, phosphorus, sodium, strychhnine.

B. Disease signs of the organs

1. Diseases of the gastro-intestinal tract
2. Diseases of liver and gall-bladder
3. Disturbances of the pancreas
4. Diseases of the heart and blood circulation
5. Diseases of the respiratory organs
6. Diseases of kidney and bladder
7. Endocrine disorders and the lymphatic system
8. Diseases of the spleen
9. Diseases of the genital organs
10. Disorders of the spinal column
11. Disease signs in the cranial areas
12. The autonomic nervous system in the iris
13. Pigment deposits in the iris
14. Pupil variations

Appendices: eleven figures and twelve iris-pictures

15. Cumulative drug effects on the system and their characteristic referential marks in the eyes.

Practical & Viva-voce: Study of chart of iris based on diseases.

PRACTICE OF MEDICINE II

I. Diseases of nervous system

Headache, migraine, neuralgia, epilepsy, coma, paralysis (hemoplegia, monoplegia, paraplegia) spasm, neuritis, new growths, neurosyphilis, tuberculosis of the central nervous system, intracranial tumours, myopathies, myasthenia gravis, muscular wasting, polyneuritis, sciatica, cerebellum and diseases related to it. (a) chorea st vitus dance, huntington chorea, myelitis, Reynaulds disease, spinal irritation, locomotor ataxia, friedreich's ataxia, spastic paraplegia, ataxic paraplegia, chronic anterior poliomyelitis, acute ascending spinal paralysis, syringomyelia and hydromyelitis, athetosis, thomson's disease, extra pyramidal syndrome (parkinsonism), meniere's disease, insomnia, somnolence, nightmares, softening of the brain, concussion of the brain, compression of the brain, cerebral hyperaemia, cerebral anaemia, cerebritis, lead palsy, erythromelalgia, acute angioneurotic edema (quicke's disease), compressed air illness (caison's disease), progressive facial hemoatrophy, brown-sequard's spinal paralysis, progressive bullar paralysis, diseases of medulla.

II. Diseases of Urinary System

The urine, congestion of the kidneys, bright's disease, acute nephritis, chronic nephritis, albuminaria and uremia, hematuria, nephrolithiasis, hydronephrosis, pyelitis, amyloid kidney, peri-nephritic abscess, floating the kidney, tumours of the kidney, cystitis, enuresis, cancer of the bladder, tuberuclosis of genitourinary tract, oliguria, incontinence of urine, nephroblastoma, renal carcinoma, prostatic carcinoma, benign prostate hypertrophy, testicular tumours, acute prostatis, acute renal failure, chronic renal failure, hypertensive encephalopathy, polycystic disease of the kidney, medullary cystic disease, nephrotic syndrome, vasculitis, wegener's granulomatosis, Henoch-schonlein purpura, infections of the lower urinary tract, inspections of the upper urinary tract, infarct of kidney.

III. Tropical diseases

Pin worm, round worm, tape worm, hydatid disease, psorospermosis, trichiniasis, trematodosis, bilharziasis, hook-worm disease, filariasis, rickettsial infections, leptospirosis, malaria, cholera, typhoid fever, leprosy, dengue fever, brucellosis, tropical sprue, rat-bite fever, relapsing fever, heat affections, endemic fluorosis, trachoma, scabies, tropical ulcer, infectious mononucleosis (glandular fever), food poisioning, AIDS, beri-beri, pellagra.

IV. Diseases of the joints and bones and constitutional diseases

Arthritis - (a) Rheumatoid arthritis, (b) chronic articular rheumatism, (c) muscular rheumatism (myolgia), (d) gout (podagra), (e) ankylosing spondylitis, Reiter's disease, whipple's disease, juvenile chronic arthritis, brucellosis,

tuberculosis of the joints, leprosy of bone, syphilitic arthritis, systemic lupas erythematsus, chronic discoid lupus erythematosis, paget's disease, neoplastic disease, ricket's, scurvy, barlow's disease, scrofula (tuberculosis adenitis), marasmus, obesity, osteomalacea.

V. Prominent diseases of the female and male generative organs

A. Female diseases : Tumor, vulvitis, diseases of vagina (a) vaginitis, (b) vaginismus (c) prolapsus vagina (i) cystocele, (ii) rectocele, (iii) enterocele (iv) vaginal fistula (a) vesico-vaginal fistula (VVF) (b) recto-vaginal fistula (RVF). diseases of the uterus (a) malformations (b) chronic cervical endometritis (c) chronic corporeal endometritis (d) acute metritis (e) chronic metritis (f) displacement of uterus (g) sarcoma of the uterus (h) carcinoma of the uterus (i) atrophy of the uterus (j) fibroid tumors, amenorrohea, menorhagia and metrorrhagia, dysmenorrhea, leucorrhea, sterility, mastitis, pelvic peritonitis, cellulitis, ovaritis, ovarian neuralgia, ovarian tumors

B. Prominent diseases of the males generative organs : (a) hydrocele, diffuse (b) hydrocele of the cord, varicocele, prostatis, hypertrophy of prostate, carcinoma of prostate, phimosis, paraphimosis, balanitis, herpes progenitalis, chancroids, chancre hunterian, climatic bubo, orchitis, elephantiasis of scrotum, elephantiasis of penis, oedema of scrotum and penis, tumors of testis, tumors of penis, neuralgia of testicles, nocturnal emission, spermatorrhoea, sterility, impotance, masturbation, premature ejaculation, inguinal hernia.

Practical and viva-voce: Disease diagnosis and monitoring and use of medicines to cure diseases.

SURGERY

1. Definition ; Introduction.
2. Asepsis, antisepsis – Definition and its application, sterlization, various methods and it's importance in surgery.
3. Approach to surgical patients history, examination and relevant investigations.
4. Pre-operative preparations.
5. Technique of anesthesia types-
   (a) General, and
   (b) Local
6. Post operative care and complications.
7. Infections – Nonspecific infections and specific infections.
   (a) Acute – Cellulitis, furunculosis erysipelas, carbuncle, tetnus, anthrax, abcess.
   (b) Chronic – Tuberculosis, syphilis, leprosy, actinomycosis.
8. Wounds – Types of wounds and their surgical treatment, surgical emphysema.
9. Ulcers, sinuses, fistula, cyst.
10. Gangrene including dry, wet and gas gangrene, treatment, amputation.
11. Burns, scald, shock, haemorrhage.

12. General consideration of injury to bone fracture and dislocation – osteomylitis and tumour of bone (brief description).
13. Injuries and disease of spine including Koch's spine and potts paraplegia.
14. Cleft lip and palate, carcinoma of tongue, dental abscess.
15. Parotid glands - Mumps, parotid abscess, mixed parotid tumours.
16. Disease of breast – Breast abscess , fibro-adenoma, fibrio adenosis carcinoma.
17. Disease of hepatobiliary system - Amoebic liver abscess, neoplasm.
    (a) Primary hepatoma.
    (b) Secondaries liver, acute choleocystitis, gall stone.
18. G. I. T. achalasia cardia, carcinoma oesophagus, peptic ulcer , pyloric obstruction, carcinoma of stomach, structure of intestine, various intestinal ulcer e.g. amoebic typhoid, tubercular and their complications, carcinoma of rectum, fistula in ano, anal fissure, haemorrhoid.
19. Acute abdomen – Its differential diagnosis, management and surgical correction.
20. Hernia, hydrocele, varicocele.
21. Urinary tract - Urinary calculus, haematuria, retention of urine with special reference to benign hyperplasia prostate and stricture urethra.
22. Penis - Phimosis, paraphimosis and circumcision.

Practical and viva-voce: To learn basic surgical techniques.

INTERNSHIP

Internship is compulsory for each student for one year period at any attached Electropathy/ Electro Homoeopathic dispensary or hospital, for attending the clinical classes of each department and prepare the case files of the patients attended and Electro Homoeopathic treatment advised accordingly. After the submission of the case files with the respective Head of the Departments, the certificate of completion of internship will be issued.

The Principal or H.O.D. must ensure that before issuance of internship certificate case files must be completed in all respects.

Electro homoeopathic practice registration will only be issued thereafter.

SUBJECTS OFFERED DURING THE COURSE AND DISTRIBUTION OF MARKS IN PROFESSIONAL EXAMINATIONS

COURSES	MARKS		
	Theory	Practical	Aggregate
BEMS-I Year Professional			
1.Anatomy I	100	100	200
2.Physiology & Biochemistry I	100	100	200
3.Pharmacy	100	100	200
4.Philosophy	100	100	200
5.Community Medicine (P.S.M.)	100	100	200
Total	**500**	**500**	**1000**
BEMS-II Year Professional			
1.Anatomy II	100	100	200
2.Physiology & Biochemistry II	100	100	200
3.Practice of Medicine	100	100	200
4.Materia Medica	100	100	200
5.Forensic Medicine & Toxicology (Medical Jurisprudence & Toxicology)	100	100	200
Total	**500**	**500**	**1000**
BEMS-III Year Professional			
1. Obstetrics & Gynaecology I	100	100	200
2. Pathology I & II	200	100	300
3. Otolaryngology (E.N.T.)	100	100	200
4. Materia Medica I	100	100	200
5. Practice of Medicine I	100	100	200
Total	**600**	**500**	**1100**
BEMS-Final Year Professional			
1. Obstetrics and Paediatrics II	100	100	200
2. Ophthalmology	100	100	200
3. Materia Medica II	100	100	200
4. Iridology	100	100	200
5. Practice of Medicine II	100	100	200
6. Surgery	100	100	200
Total	**600**	**600**	**1200**