# SCHOOL OF HOMOEOPATHY

Sri Satya Sai University of Technology and Medical Sciences, Sehore (M.P.) - 466001



# Regulations, Curriculum, and Syllabus of

# Bachelor of Homoeopathic Medicine and Surgery (B.H.M.S.)

AS PER THE HOMOEOPATHY (DEGREE COURSE) AMENDMENT REGULATIONS 2003

(With Effect From 2016-17 onwards)

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## 1. INTRODUCTION

The regulation of the Bachelor of Homoeopathic Medicine and Surgery (B.H.M.S) being Conducted by the Sri satya sai university of technology and medical sciences, Sehore is in accordance with the

Recommendations of Central Council of Homoeopathy with an emphasis on the health care Needs of the M.P. State.

## 2. AIMS AND OBJECTIVES OF COURSE

Basic objectives of education and training in a Homoeopathic institution is to prepare a competent Homoeopathic Physician who is capable of functioning independently and effectively under Rural and Urban set ups.

In order to achieve this, the following syllabus and curriculum has been designed.

## A. SOUND FOUNDATION

To function effectively as a Homoeopathic Physician, a thorough grasp over the medical concepts is imperative. For this, the educational process shall be perceived as an integrated evolving process and not merely as an acquisition of large number of disjointed facts. A student shall have to pass through a training procedure which encompasses the above, well right from I B.H.M.S to IV B.H.M.S. and also during the Internship period.

He/she shall undergo an education process wherein learning of facts and concept right from I year are in continuity, in an evolutionary & progressive pattern. In I B.H.M.S, student shall study the fundamental principles of Homoeopathy and will also learn more of applied anatomy than a multitude of minor anatomical details.

In the II B.H.M.S., a student shall be exposed to a very vital concept of Susceptibility and symptomatology with Analysis – Evaluation, details of the Homoeopathic concepts and Logic of Homoeopathy. These will attain much deeper significance when the correct knowledge of INFLAMMATION, IMMUNITY is correlated well with concepts of susceptibility.

In III B.H.M.S., there is an opportunity to fortify the foundation at the best by correlating between Theory of chronic diseases and the Patho-Physiological facts on the Gynaecology, Surgery and Medicine. A student shall have to be taught the spectrums of various diseases in correlation with the spectrum of Miasmatic manifestations. He will be able to use a well concluded EVALUATION ORDER OF Characteristics to derive an operationally valid reportorial totality.

The knowledge gathered in this pattern, will keep him constantly aware of his objectives and his role as a Homoeopathic Physician. The integration will eliminate the state of confusion. The therapeutic action then will be right and complete, utilizing the full

repertories of the Medical and Non-medical measures, keeping him up-to-date about all fresh scientific developments and inculcating values of continuous Medical Education.

#### B. EXECUTION

Maximum emphasis shall be placed on the applied aspects of all the subjects. Thus teachings of Anatomy, Physiology and Biochemistry will demand greater emphasis on applied aspects of these sciences. Teaching of Pathology will demand sharp focus on general Pathology, while regional Pathology will come up as an application. It shall require correlation with Medicine, Surgery and Gyneacology. All these need to be studied from

Homoeopathic perspectives, hence emphasis on applied aspects of Organon philosophy & Homoeopathic therapeutics representing application to all other subjects.

#### C. INTER-DEPARTMENTAL CO-ORDINATION:

Essentially, the entire approach becomes an integrated approach. All departments shall develop a cohesive well defined programme which demand teaching, coordinating well with other faculties with constant updating and evaluation. The coordination has to be in the ways as, given in the text under each subject inside these regulations. This will ensure fundamental and exceptional clarity.

## D. DEDUCTIVE-INDUCTIVE TEACHINGS:

While teaching, there shall be balance in designing deductive and inductive process in mind. There shall be less emphasis on didactic lectures. Major portion of the time of the students shall be devoted to demonstrations, group discussions, seminars and clinics. Every attempt shall be made to encourage students to participate in all these to develop his personality, character, expressions and to ensure the grasp over concepts rapidly.

#### E. PATIENT ORIENTED TEACHINGS:

In order to impart the integrated medical education, patient has to be in the centre right from day one of the II B.H.M.S. Importance of social factors in relation to the problem of health and disease shall receive proper emphasis throughout the course and to achieve this objective, the educational process shall be community as well as hospital based.

Based on the above concepts, the course of studies as laid down in these Regulations will help to fulfill these needs. While doing so, the need of the hour, past experience in learning and teaching is taken into consideration.

## 3. REGULATIONS.

## 3.1 Academic Eligibility for Admission

No candidate shall be eligible for admission unless

- a) He / She has completed the age of 17 years on or before 31st December of the year of his/her admission to the first year of the course.
- b) He / She has passed the higher secondary examination (10+2) with Physics, Chemistry and Biology as optional subjects or examination recognized by the University as equivalent thereto.
- c) A candidate for admission to B.H.M.S. course must have obtained not less than 50% marks in Biology separately and not less than 50% marks in Physics, Chemistry and Biology taken together at the qualifying examination and also English as a compulsory subject
- d) No candidate shall be admitted to BHMS Degree course if he is blind (including colour blindness) deaf or dump

Qualification and allocation of the seats will be as per the directions issued by the Government of M.P. from time to time.

## 3.2 Selection of Students

The Selection of students for the B.H.M.S course shall be made based strictly on merit as decided by the competent authority approved by the Government of M.P./ Sri satya sai university of technology and medical sciences, Sehore and as per guidelines of Central Council of Homoeopathy.

## 3.3 Registration

A candidate on admission to the B.H.M.S course shall apply to the University for Registration.

- a. By making a formal application in the prescribed format.
- b. Original mark lists of qualifying examination.
- c. Allotment letter from the competent authority.
- d. Eligibility and migration certificate wherever needed.
- e. Original SSLC/equivalent certificate.
- f. The fees prescribed for the course.
- e. Transfer Certificate from the previous institution.

## 3.4 Duration of course

The total duration of the course is five and half years, including one year internship. Every candidate for admission to the B.H.M.S. examination shall undergo a course of certified study extending over four and a half academic years from the date of commencement of his study as per syllabus and curriculum prescribed for the course in Homoeopathic Medical College affiliated to the University.

Every candidate shall complete the course including the passing of the examination in all subjects and complete the compulsory internship training within a period of eleven years from the date of admission in First BHMS Degree Course in the College concerned, failing which his name shall be removed from the rolls of the college.

The academic course of studies is divided into four phases as follows

PHASE	DURATION
First B.H.M.S	1 Academic year (12Months)
Second B.H.M.S	1 Academic year(12Months)
Third B.H.M.S	1 Academic year(12Months)
Final B.H.M.S	1 <sub>1/2</sub> Academic years(18 Months)

The study of the first phase shall comprise of Pre-clinical subjects (Anatomy, Physiology & Biochemistry and Homoeopathic Pharmacy) along with Homoeopathic Philosophy, and Materia Medica.

The remaining academic phases shall be devoted to the study of clinical subjects.

During the second phase, the Para-clinical subjects shall be taught concurrently.

At the end of each phase, examinations will be conducted by the University.

No student shall be admitted to the second / Third / Final B.H.M.S examination unless he/she has passed the First / second / Third / B.H.M.S examinations held for the previous phases.

After passing the final B.H.M.S. examination, he shall undergo a period of one year rotating internship in the Collegiate Hospital.

## 3.5 Medium of Instruction

Medium of instruction shall be in English.

#### 3.6 Course outline

Subjects: Subjects for study and examinations for the B.H.M.S (Degree Course) shall be as under:

Sl. No.	Name of Subject	Year of study	Examinations conducted
1.	Anatomy	First BHMS	At the end of First BHMS Course
2.	Physiology & Biochemistry	First BHMS	At the end of First BHMS Course
3.	Homoeopathic Pharmacy	First BHMS	At the end of First BHMS Course
4.	Organon of Medicine with Homoeopathic Philosophy	First BHMS,Second BHMS,Third BHMS & Fourth BHMS	At the end of Second,Third and Final BHMS Course
5.	Homoeopathic Materia Medica	First BHMS Second BHMS,Third BHMS & Fourth BHMS	At the end of Second,Third and Fina BHMS Course
6.	Forensic Medicine & Toxicology	Second BHMS	At the end of Second BHMS Course
7.	Pathology	Second BHMS	At the end of Second BHMS Course
8.	Gynaecology and Obstetrics	Second BHMS & Third BHMS	At the end of Third BHMS Course
9.	Surgery	Second BHMS & Third BHMS	At the end of Third BHMS Course
10.	Community Medicine	Third BHMS& Fourth BHMS	At the end of Final BHMS Course
11.	Repertory	Third BHMS& Fourth BHMS	At the end of Final BHMS Course
12.	Practice of Medicine	Third BHMS& Fourth BHMS	At the end of Final BHMS Course

Each college shall impart teaching and training toall the students in all the classes for theory and practical or clinical including tutorial and seminar for minimum of seven working hours on a working day (including thirty minutes for lunch)

The distribution of hours for each subjects during each phase of the course shall be as shown in the following Tables

## FIRST BHMS COURSE -DISTRIBUTION OF HOURS

Sl.No.	SUBJECT	Theory	Practical/Clinical/ Tutorial/Seminar	TOTAL	
1.	Anatomy	225	275	500	
2.	Physiology & Biochemistry	225	275	500	
3.	Homoeopathic Pharmacy	100	100	200	
4.	Organon of Medicine, With Homoeopathic Philosophy	70	-	70	
5.	Homoeopathic Materia Medica	70	-	70	
1.	TOTAL				

## 3.7 Migration and Transfer

- a) Migration from one college to the other is not the right of the student
- b) Migration of students from one Homoeopathic Medical College to another will be considered only in exceptional cases on extreme compassionate grounds.
- c) Migration to Govt. Colleges shall be permitted only to the students from other Govt. Colleges within the state
- d) All applications for migration shall be referred to the Central Council of Homoeopathy, by the college and get the approval of the Council
- e) Migration or transfer of students from one college to another shall be strictly as per the Clause 14(v) of CCH regulations 2003 (as amended up to July 2015) and according to the University regulations and government directions from time to time.

#### 3.8 Attendance

A minimum of 80% attendance both in theory and clinical/practical separately is needed to appear for the University examination.

## 3.9 EXAMINATIONS

## 3.9.1. Internal Assessment

## Essentialities for qualifying to appear in professional examinations.

The performance in essential components of training are to be assessed to determine the eligibility of the student to appear for the University Examinations. Every students shall be

assessed by the concerned departments during their course of study at institutional level, before they are allowed to appear for the professional examinations of the university.

A student who has secured 35% marks for internal assessment in theory and practical separately is qualified to appear for University examination provided he/she satisfies that percentage of attendance requirement as said already. But neither the marks secured during the internal examinations nor the percentage will not appear in their final marklists given by the University.

The internal assessment is calculated by the concerned departments by considering the performance of each student in the internal assessment examinations, assignments, seminars, practicals and clinical presentations.

## (a) Internal assessment examinations

Two internal examinations shall be conducted during each phase of B.H.M.S course ie. I BHMS, II BHMS and IV BHMS, both for theory and Practical / clinical separately in each subject. The questions and allocation of marks for internal examinations in various subjects shall be in the same pattern as that of University Examinations. The first internal examination shall be at the end of the first half of each course and the syllabus shall be from the portions covered during that half. The second internal examination shall be conducted as the Model Examination, covering all the topics of the syllabus.

## (b) Assignments

Each student shall prepare assignments in each subject of examinations as specified by the concerned department. There shall be minimum two assignments for First, Second and Third BHMS courses and Three assignments for Fourth BHMS course in each subject. The assignments shall be submitted to the department before each internal examination or the date specified by the concerned department. The valued assignments shall be returned to the students.

## (c) Seminar / Clinical presentations

Each student shall be required to present a seminar / clinical case on a selected topic in each subject. The evaluation of the seminar / clinical presentation shall be done by the faculty of the concerned department, based on the seminar paper, presentation and participation in discussion.

## (d) Criteria for the calculation of the internal assessment

## Theory

Internal assessment examinations: 90% Assignment/General performance: 10%

#### Practical /Clinical

Internal assessment examinations: 90%

## 3.9.2 UNIVERSITY EXAMINATIONS

## FIRST BHMS EXAMINATION

- (i) The student shall be admitted to the First BHMS Examination provided he/she has required attendance as per regulation 13 (iii) to the satisfaction of the head of the Homoeopathic Medical College.
- (ii) The First BHMS university examination and publication of results shall be completed towards the end of 12<sup>th</sup> month of admission to First BHMS.
- (iii) Examination in Anatomy including Histology and Embryology shall consist of two theory papers. Practical includes oral, identification of specimen and histology slides
- (iv)Examination in Physiology including Biochemistry shall consist of two theory papers and one practical including oral.
- (v) The examination in Homoeopathic Pharmacy shall consist of one theory and one practical including Oral.
- (vi) Full marks for each subject and the minimum marks required for passing First BHMS should be as follows:

SUBJECT	THE	ORY	ORAL & PRACTICAL				
	Maximum	Minimum	Maximum Marks		Total	Minimum	Grand
	Marks	for pass	Practical	Viva	Total	for Pass	Total
Homeopathic Pharmacy	100	50	50	50	100	50	200
Anatomy	200	100	100	100	200	100	400
Physiology & Biochemistry	200	100	100	100	200	100	400

3.10. Criteria for pass

- 1. In each of the subjects, a candidate must obtain 50% of the aggregate marks for a pass.
- 2. In the university theory, the candidate must obtain 50% marks exclusively.
- 3. In the university practical/clinical including Viva voce, the candidate must obtain 50% Marks exclusively.

## 3.11 Declaration of class

Candidates who pass the whole examination shall be ranked in the order of proficiency as determined by the total marks in all subjects and shall be arranged in three classes .

i. Distinction - 75% and above

ii First Class - 60% and above, less than 75%

iii Second Class - 50% and above, less than 60%

Any candidate who fail in the first attempt in any subject and pass subsequently shall not be ranked in distinction or first class.

## 3.12 Award of Rank

i. Only candidates who have passed all the subjects of the examination in first attempt will be considered for award of the Rank.

ii. Marks obtained in supplementary examinations will not be considered for ranking.

iii. Rank will be awarded only after the Final BHMS examination.

iv. For ranking in the Final BHMS, aggregate marks secured in all the subjects from I to IV BHMS will be counted.

## 3.13 Results and Re-admission to Examination

- (i) Examining body may ensure that the results of the examination are published in time so that the student who successfully completes the BHMS examinations can complete the course in  $5\,\%$  yrs after admission.
- (ii) Candidates who have passed in one or more subjects need not appear in that subject or those subjects again in the subsequent examinations if the candidate passes the whole examination with in four chances including the original examination.
- (iii) Only the Candidates who have passed the subjects of Anatomy and Physiology Examinations shall be eligible for promotion to II BHMS. Those who have failed the subject of Homoeopathic Pharmacy alone, shall be eligible for promotion to II BHMS, but shall pass the subject one term (6months) before he/she is allowed to appear in the Second BHMS examination as per the Clause (iv)(a) below.
- (iv)Facility to keep term: Not withstanding with the foregoing regulations, the students shall be allowed the facility to keep term on the following conditions:
  - (a) The candidate shall pass First BHMS examination in all subjects at least one term (6months) before he/she is allowed to appear in the Second BHMS examination. Provided that he/she has passed in the subjects of Anatomy and Physiology (including Biochemistry) examinations two terms (twelve months) before he/she is allowed to appear in the Second BHMS examination.

- (b) The candidate must pass the Second BHMS examination in all subjects at least one term (6 months) before he/she is allowed to appear in the Third BHMS examination.
- (c) The candidate must pass the Third BHMS examination <u>in all subjects</u> at least one term (6 months) before he/she is allowed to appear in the Fourth BHMS examination.
- (v) Special classes, seminars, demonstrations, practical, tutorials etc. Shall be arranged for the repeaters in the subjects in which they have failed before they are allowed to appear at the next examination, in which attendance is compulsory.
- (vi) If a candidate fails to pass in all the subjects with in four chances in examinations, he/she shall be required to prosecute a further course of studying all the subjects and in all parts for one year to the satisfaction of the head of the college and appearing for examination in all the subjects.

Provided that if a student appearing for the Fourth BHMS examination has only one subject to pass at the end of prescribed chances, he/she shall be allowed to appear at the next examination in that particular subject and shall complete the examination with this special chance.

- (vii) The examining body may under exceptional circumstances, partially or wholly cancel any examination conducted by it under intimation to the Central Council of Homoeopathy and arrange for conducting re-examination in those subjects within a period of thirty days from the date of such cancellation.
- (viii) Grace marks may be awarded to the students at the discretion of the University / examining body on exceptional circumstances, at the maximum of 5 marks in total, which can be distributed between subjects either to get a whole pass /subject wise pass, either for theory or practical /viva, or both
- (ix) There shall be a regular examination and a supplementary examination in a year preferably at an interval of six months and the supplementary examination may be conducted within two months of declaration of results (including issue of mark sheets).
- (x) For non-appearance in an examination for any reason, a candidate shall not have any liberty for availing additional chance to appear in that examination.

## 3.14 Qualification for Examiners

No person other than the holder of qualification prescribed for the teaching staff in Homoeopathy (Minimum Standards of Education) Regulation as amended from time to time shall be appointed as an internal or external examiner or paper-setter for the BHMS Degree Course.

Provided that:-

(a) No such person shall be appointed as an examiner unless he has at least three years continuous regular teaching experience in the subject concerned, gained in a degree level Homoeopathic Medical College.

(b) Internal examiners shall be appointed from amongst the teaching staff of the

Homoeopathic Medical College concerned.

## 3.15 Internship Training

## 4. SYLLABUS

## 4.1.ANATOMY

## Instructions

Instructions in anatomy should be so planned as to present a general working knowledge of the structure of the human body. The amount of detail which a student is required to memorise should be reduced to the mnimum. Major emphasis should be laid on functional anatomy of living subject rather than on the static structures of the cadaver, and on general anatomical positions and broad relations of the viscera, muscles, blood-vessels, nerves and lymphatics and std of the cadaver is the only means to achieve this. Students should not be burdened with minute anatomical details which have no clinical significance

Though dissection of the entire body is essential for the preparation of student of his clinical studies, the burden of dissection can be reduced and much saving of time can be effected. If considerable reduction of the amount of topographical details is made and the following points are kept in view.

- Only such details as have professional or general educational value for the medical students.
- 2. The purpose of dissection is to give the student an understanding of the body in relation to its function, and the dissection should be designed to achieve this goal
- 3. Normal radiological anatomy may also form part of practical or clinical training and the structure of the body should be presented linking functional aspects.

- 4. Dissection should be preceded by a course of lectures on the general structure of the organ or the system under discussion and then its function. In this way anatomical and physiological knowledge can be presented to students in an integrated form and the instruction of the whole course of anatomy and physiology more interesting, lively and practical or clinical.
- 5. A good part of theoretical lectures on anatomy can be transferred to tutorial classes' with the demonstrations.
- 6. Students should be able to identify anatomical specimens and structures displayed in the dissections.
- Lectures or demonstrations on the clinical and applied anatomy should be arranged in the later part of the course and it should aim at demonstrating the anatomical basis of physical signs and the value of anatomical knowledge to the students.
- 8. Seminars and group discussions to be arranged periodically with a view of presenting these subjects in an integrated manner.
- More stress on demonstrations and tutorials should be given. Emphasis should be laid down on the general anatomical positions and broad relations of the viscer ,muscles, blood vessels, nerves and lymphatics.
- 10. There should be joint seminars with the departments of physiology and biochemistry which should be organised once a month
- 11. There should be a close correlation in the teaching of gross Anatomy, Histology. Embryology and Genetics and the teaching of Anatomy .Physiology including Biochemistry shall be integrated.

## **Syllabus**

## A) General anatomy&Miroanatomy

- a. Modern conception of cell-components and their functions, why a cell divides, cell division, types with their significance.
- B .Genetic individuality:

- Elementary genetics, definition, health and disease, result of interaction between organism and its environments, utility of knowledge from Homoeopathic point of view.
- ii. Mendel's Laws and their significances.
- iii. Applied genetics
- **B)** Embryology Spermatogenesis, Oogenesis, Fertilisation, Implantation and changes, embryonic disc, Germ layer Placenta, Foetal membranes, Umbilical cord, Organogenesis.
- c) Regional anatomy: Regional anatomy shall be taught with emphasis on developmental anatomy, broad relationship, surface marking, Neuro vascular supply, Radiological anatomy, and applied anatomy.

#### a. Extremities:-

- i. Skeleton, position and functions of joints.
- ii. Muscle groups, lumbo sacral plexus.
- iii. Arterial supply, venous drainage, neurovascular bundles, lymphatics and lymph nodes, relation of nerves to bones.
- iv. Joints with special emphasis on lumbo-sacral, hip, knee and Ankle joints, muscles producing movements, results of nerve injury.
- v. Radiology of bones and joints, classification, determination of age
- vi. Applied anatomy
- vii. Surface markings of main arteries, nerves.

#### b. Thorax

- i. Skeleton, joints, muscles of chest wall –diaphragm, The mammary gland, lymphatic drainage.
  - ii. The pleura & lungs.
  - Mediastinum, heart, coronary arteries, great vessels, trachea, oesophagus, lymph nodes, Thymus
  - iv. Radiology, of heart, aorta, lung.
  - v. Surface marking pleura, lung and heart- valves of heart, borders. Arch of aorta, sup.vena cava, bifurcation of trachea
  - vi. Applied Anatomy

#### C. Abdomen and Pelvis:-

- i. The abdominal wall skin and muscles, innervations of fascia, peritoneum, blood vessels, lymphatics, autonomic ganglia and plexuses.
- ii. Stomach, smallintestine, caecum, appendix, large intestine.
- iii. Duodenum, pancreas, kidneys, uterus, supra renal.
- iv. Liver and gallbladder

- v. Pelvis, skeleton and joints, muscles of pelvis, organs, external genitalia in male and in the female, lumbosacral plexus, vessels, lymphatics, Lymphatics, autonomic ganglia, and plexuses.
- vi. Blood vessels and nerve plexuses of abdomen and pelvis, the portal venous system.
- vii. Applied anatomy of reffered pain, porto systemic anastomosis.
- viii. Surface marking of organs and blood vessels.

## d. Head and Neck:-

- i. Scalp-Innervation, vascular supply, middle meningeal artery.
- ii. Face- main muscle group, muscles of mastication, facial expression.
- iii. The eyelids, eye ball, lacrimal apparatus, muscles that move the eyeball
- The nasal cavity, naso pharynx, paranasalsinuses, Eustachian tube and Lymphoid masses
- v. Oral cavity and pharynx.
- vi. Larynx
- vii. Cervical vertebrae joints of head and neck.
- viii. Structures of neck, sternocleidomastoid, thyroid gland ,salivary gland
- ix. Teeth and dentition.
- x. The external, middle and internal ear.
- xi. Applied anatomy
- xii. Neuro vascular supply
- xiii. Surface marking: Parotid gland, middle meningeal artery, thyroid gland, common internal and external carotid arteries.

#### e. Neuro anatomy: -

- i. Meninges -
- ii. Cerebrum functional areas of brain, basal ganglia, internal capsule.
- iii. Mid brain
- iv. Hind brain structures
- v. Ventricles of brain, Cerebro spinal fluid –formation, circulation.
- vi. Cranial nerves, origin, courses, areas of distribution, nerve palsies.
- vii. Sympathetic and parasympathetic nervous system, location, distribution
- viii. Blood supply Supply of Brain
- ix. Applied anatomy viz; lumbar puncture, refered pain, spinal anaesthesia, Increased intracranial pressure etc.

## **B.PRACTICAL**

- 1. Demonstration of dissected parts/dissection of the whole human body.
- Identification of histological specimen of tissues and organs viz., Cartilage, Bone, Epithelium, Artery, Vein, Adipose tissue, Skin, Mammary gland, Cardiac muscle, Skeletal muscle, Trachea, lungs, Thyroid, Para thyroid, Oesophagus, Stomach, Duodenum, Pancreas, Spleen, liver, Jejunum, Ileum, large Intestine, Testes, ovary, kidney, Ureter,

supra renal gland, Parotid gland, Pituitary gland, Salivary gland, Cerebrum, Cerebellum, Spinal cord , Retina, Cornea etc.

## LIST OF BOOKS

No	Recommended text book	No	Supplementary books	No	Reference books
1	Cunningham's Manual of practical anatomy- Vol:	1	Grays Anatomy -Standing	1.	Text book of anatomy- Dr.T.Raghanadhan
2	B .D Chaurasia,s Human anatomy Vol: I,II,III	2.	Regional Anatomy- Last	2.	Essential clinical Anatomy- Keith.L.moore
3	Embryology-Inderbersingh	3.	Grays Anatomy for students-Drake	3.	Clinical Anatomy- Snell
4	Osteology-Podder	4.	Clinical Embryology-Snell	4.	Embryology- Keith .L. Moore
5	Histology- Inderbersingh	5.	Clinically oriented Anatomy- Kadasne	5.	Anatomy-Dutta vol I , II, & III
6	Clinical anatomy-Neeta	6.	H uman Anatomy-Byasdeb ghosh	6.	Text book of Human Neuro anatomy - Inderbersingh

## 4.2. PHYSIOLOGY & BIOCHEMISTRY

## A. PHYSIOLOGY

## Instructions:

- I (a) The purpose of a course is to teach the functions, processes and inter-relationship of the different organs and systems of the normal disturbance in disease and to equip the student with normal standards of reference for use while diagnosing and treating deviations from the normal.
- (b) To a Homoeopath the human organism is an integrated whole of body life and mind and though life includes all the chemico-physical processes it transcends them.

- (c) There can be no symptoms of disease without vital force animating the human organism and it is primarily the vital force which is deranged in disease;
- (d) Physiology shall be taughtfrom the stand point of describing physical processes underlying them in health.
- (e) Applied aspect of every system including the organs is to be stressed upon while teaching the subject.
- II (a) There should be close co-operation between the various departments while teaching the different systems;
- (b) There should be joint courses between the two departments of anatomy, physiology and biochemistry should bring home the point to the students that the integrated approach is meaningful.

## A. Theory:

The curriculum includes the following namely:

- I. General physiology:
  - 1. Introduction to cellular physiology
  - 2. Cell Junctions
  - 3. Transport through cell membrane and resting potential
  - 4. Body fluids compartments
  - 5. Homeostasis

## II. Body fluids:

- 1. Blood
- 2. Plasma Proteins
- 3. Red Blood Cells
- 4. Erythropoiesis
- 5. Haemoglobin and Iron Metabolism
- 6. Erythrocyte Sedimentation Rate
- 7. Packed cell Volume and Blood Indices
- 8. Anaemia
- 9. Haemolysis and Fragility of Red Blood Cells
- 10. White Blood Cell

- 11. Immunity
- 12. Platelets
- 13. Haemostasis
- 14. Coagulation of Blood
- 15. Blood groups
- 16. Blood Transfusion
- 17. Blood volume
- 18. Reticulo-endothelial System and Tissue Macrophage
- 19. Lymphatic System and Lymph
- 20. Tissue fluid and Oedema

## III.Cardio-vascular system:

- 1. Introduction to cardiovascular system
- 2. Properties of cardiac muscle
- 3. Cardiac cycle
- 4. General principals of circulation
- 5. Heart sounds
- 6. Regulation of cardiovascular system
- 7. Normal and abnormal Electrocardiagram (ECG)
- 8. Cardiac output
- 9. Heart rate
- 10. Arterial blood pressure
- 11. Radial Pulse
- 12. Regional circulation- Cerebral, Splanchnic, Capillary, Cutaneous & skeletal muscle circulation
- 13. Cardiovascular adjustments during exercise

## IV. Respiratory system and environmental physiology:

- 1. Physiological anatomy of respiratory tract
- 2. Mechanism of respiration: Ventilation, diffusion of gases
- 3. Transport of respiratory gases
- 4. Regulation of respiration
- 5. Pulmonary function tests
- 6. High altitude and space physiology
- 7. Deep sea physiology
- 8. Artificial respiration
- 9. Effects of exercise on respiration

## V. Digestive system:

1. Introduction to digestive system

- 2. Composition and functions of digestive juices
- 3. Physiology anatomy of Stomach, Pancreas, Liver and Gall bladder, Small intestine, Large intestine
  - 4. Movements of gastrointestinal tract.
  - 5. Gastrointestinal hormones
  - 6. Digestion and absorption of carbohydrates, proteins and lipids

## VI. Renal physiology and skin:

- 1. Physiological anatomy of kidneys and urinary tract
- 2. Renal circulation
- 3. Urine formation: Renal clearance, glomerular filtration, tubular reabsorption, selective secretion, concentration of urine, acidification of urine.
- 4. Renal function tests
- 5. Micturition
- 6. Skin
- 7. Sweat
- 8. Body temperature and its regulation

## VII. Endocrionology:

- 1. Introduction to endocrinology
- 2. Hormones an hypothalamo-hypophyseal axis
- 3. Pituitary gland
- 4. Thyroid gland
- 5. Parathyroid
- 6. Endocrine functions of pancreas
- 7. Adrenal cortex
- 8. Adrenal medulla
- 9. Endocrine functions of other organs

## VIII. Reproductive system:

- Male reproductive system testis and its hormones; seminal vesicles, prostate gland, semen.
- 2. Introduction to female reproductive system
- 3. Menstrual cycle
- 4. Ovulation
- 5. Menopause
- 6. Infertility

- 7. Pregnancy & parturition
- 8. Placenta
- 9. Pregnancy tests
- 10. Mammary glands and Lactation
- 11. Fertility
- 12. Foetal circulation

## IX. Central nervous system:

- 1. Introduction to nervous system
- 2. Neuron
- 3. Neuroglia
- 4. Receptors
- 5. Synapse
- 6. Neurotransmitters
- 7. Reflex
- 8. Spinal cord
- 9. Somato-sensory system and somato-motor system
- 10. Physiology of Pain
- 11. Brainstem, Vesicular apparatus
- 12. Cerebral cortex
- 13. Thalamus
- 14. Hypothalamus
- 15. Internal capsule
- 16. Basal ganglia
- 17. Limbic system
- 18. Cerebellum Posture and equilibrium
- 19. Reticular formation
- 20. Proprioceptors
- 21. Higher intellectual function
- 22. Electroencephalogram (EEG)
- 23. Physiology of sleep
- 24. Cerebro-spinal fluid (CSF)
- 25. Autonomic nervous system (ANS)

## X. Special senses:

- 1. Eye: Photochemistry of vision, Visual pathway, Pupillary reflexes, Colour vision, Errors of refraction
- 2. Ear: Auditory pathway, Mechanism of hearing, Auditory defects
- 3. Sensation of taste: Taste receptors, Taste pathways

- 4. Sensation of smell: Olfactory receptors, olfactory pathways
- 5. Sensation of touch

## XI. Nerve muscle physiology:

- 1. Physiological properties of nerve fibres
- 2. Nerve fibre types, classification, function, Degeneration and regeneration of peripheral nerves.
- 3. Neuro-Muscular junction
- 4. Physiology of Skeletal muscle
- 5. Physiology of Cardiac muscle
- 6. Physiology of smooth muscle
- 7. EMG and disorders of skeletal muscles.

## XII. Bio-physical sciences:

- 1. Filtration
- 2. Ultra filtration
- 3. Osmosis
- 4. Diffusion
- 5. Adsorption
- 6. Hydrotropy
- 7. Colloid
- 8. Donnan equilibrium
- 9. Tracer elements
- 10. Dialysis
- 11. Absorption
- 12. Assimilation
- 13. Surface tension

#### B. Practical:

## I. Haematology:

- 1. Study of the Compound Microscope
- 2. Introduction to haematology
- 3. Collection of blood samples
- 4. Estimation of Haemoglobin Concentration
- 5. Determination of Haematocrit
- 6. Haemocytometry
- 7. Total RBC count
- 8. Determination of RBC indies

- 9. Total Leucocytes count (TLC)
- 10. Preparation and examination of Blood smear
- 11. Differential Leucocyte count (DLC)
- 12. Absolute Eosinophil count
- 13. Determination of Erythrocyte Sedimentation Rate
- 14. Determination of Blood groups
- 15. Osmotic fragility of Red cells
- 16. Determination of Bleeding Time & Coagulation Time
- 17. Platelet Count
- 18. Reticulocyte Count

## II. Human experiments

- 1. General Examination
- 2. Respiratory System Clinical examination, Spirometry, Stethography
- 3. Gastrointestinal System Clinical examination
- 4. Cardiovascular System Blood pressure recording, Radial pulse, ECG, Clinical examination
- 5. Nerve and Muscle Physiology Mosso's Ergography, Handgrip Dynamometer
- 6. Nervous System Clinical examination
- 7. Special Senses Clinical examination
- 8. Reproductive System Diagnosis of pregnancy

#### (B).BIO-CHEMISTRY

## A. Theory:

- 1. Carbohydrates: (Chemistry, Metabolism, Glycolysis, TCA, HMP, Glycogen synthesis and degradation, Blood glucose reulation)
- 2. Lipids: (Chemistry, Metabolism, Intestinal uptake, Fat transport, Utilisation of stored Fat, Activation of fatty acids, Beta oxidation and synthesis of fatty acids)
- 3. Proteins: (Chemistry, Metabolism, Digestion of proteins, Transamination, Deamination, Fate of Ammonia, Urea cycle, End products of each amino acid and their entry into TCA cycle
- 4. Enzymes: (Definition, Classification, Biological Impotance, Diagnostic use, Inhibition)
- 5. Vitamins: (Daily requirements, Dietary source, Disorders and physiological role)
- 6. Minerals: (Daily requirements, Dietary source, Disorders and physiological role)
- 7. Organ function tests

## B. Practical:

- 1. Demonstration of uses of instruments or equipment
- 2. Qualitative analysis of carbohydrates, proteins and lipids
- 3. Normal characteristics of urine
- 4. Abnormal constituents of urine
- 5. Quantitative estimation of glucose, total proteins, uric acid in blood
- 6. Liver function tests
- 7. Kidney function tests
- 8. Lipid profile
- 9. Interpretation and discussion of result of biochemical tests.

## C. Examination

- 1. Theory
  - (1) No. of papers 02
  - (2) Marks: paper I 100 & Paper II 100
    - 1.1.Contents:

## 1.1.1. Paper - I:

General Physiology, Biophysics, Body fluids, Cardiovascular system, Reticuloendothelial system, Respiratory system, Excretory system, Regulation of body temperature, Skin, Nerve Muscle Physiology

## 1.1.2. Paper - II:

Endocrine system, Central Nervous system, Digestive system and Metabolism, Reproductive system, Sense organs, Biochemistry, Nutrition

- 2. Practical including viva voce or oral:
  - 2.1. Marks: Practical:100, Viva: 100, Total: 200

2.2. Distribution of marks;	
2.2.1. Experiments	50
2.2.2. Spotting	30
2.2.3. Maintenance of Practical record/journal	20
2.2.4. Viva Voce(Oral)	100

## Physiology& Biochemistry Books

## Recommende text books

- 1 Text book of Medical Physiology: Guyton
- 2. Text book of Biochemistry; Dr. Vasudevan
- 3. Text book of Practical Physiology-Pal & Pal

## Supplementery Books

- 1 Samson wright's applied Physiology
- 2 Review of Medical Physiology- Willam.F. Ganong
- 3. Harper's Biochemistry
- 4 Human Physiology Vol I & Vol II; C.C.Chatterjee
- 5 Concise Medical Physiology Choudhary

## Refference books

- 1. Text book of Medical Biochemistry: M.N.Chatterjee
- 2. Text book of Human Physiology; Madavan kutty
- 3. Biochemstry Sathya Narayanan

#### 4.3. HOMOEOPATHIC PHARMACY

#### A. THEORY

## 1. General concepts and orientation

- a. History of Pharmacy with emphasis in emergence of Homoeopathic Pharmacy
- b. Official Homoeoepathic Pharmacopoea and Unofficial Homoeopathic Pharmacopoea. ( German, British, U.S.A, Indian)
- c. Important terminologies like Scientific names, common names, synonyms.
- d. Definitions in Homoeopathic Pharmacy.
- e. Components of Pharmacy- Branches of Pharmacy.
- f. Weights and measurements.
- g. Nomenclature of Homoeopathic drugs with their anomalies.
- h. Speciality and originality of Homoeopathic Pharmacy.
- i. Relation of Pharmacy with Materia Medica, Organon of Medicine and National Economy.

## 2. Raw Materials- Drugs and Vehicle

- a. Sources of Drugs- Taxonomical and Morphological classification with reference to utilty.
- b. Collection of Drug substances.
- c. Vehicles.
- d. Homoeopathic Pharmaceutical instruments and appliances.

## 3. Homoeopathic Pharmaceutics.

- a. Mother Tincture- Its preparation and Preservation- Old and New methods of Preparation.
- b. Drug Dynamization or Potentisation. Preservation of potentised drugs and various scales of Dynamization.
- c. External application (Focus on scope of Homoeopathic lotion, glycerol, liniment, ointment and others).
- d. Doctrine of Signature.
- e. Posology (Focus on basic principles related aphorisms of Organon of Medicine).
- f. Prescription. (commonly used abbreviations with meaning).

Concept of Placebo.

- g. Pharmaconomy- Routs Homoeopathic drug administration.
- h. Dispensing of Medicines.
- i. Basis of adverse drug reaction and Pharmaco vigilance.
- j. Phytochemistry.
- k. Pharmacopallaxy.

## 4 Pharmacodynamics and Pharmacognosy (Pharmacology)

- a. Homoeopathic Pharmacodynamics.
- b. Drug Proving (related aphorisms 105-145 of Organon of Medicine). Merits and demerits of Human and Animal proving.

c. Pharmacological study of drugs listed in Appendix- A

## 5. Quality control

- a. Standardization of Homoeopathic Drugs- Raw materials and finished products.
- b. Good Manufacturing Practices, Industrial Pharmacy
- c. Homoeopathic Pharmacopoea Laboratory- Functions and Activities, relating to quality control of Drugs.

## 6. Legislations Pertaining to Homoeopathic Pharmacy

- a. The Drug and Cosmetic Act- 1940 (23 of 1940) in relation to Homoeopathy
- b. Drug and Cosmetic Rules 1945- in relation to Homoeopathy.
- c. Poisons act 1990
- d. The Narcotic drugs and Psychotopic substances Act 1985- 61 of 1985- Dangerous Drug Act
- e. Drugs and Magic Remedies Act 1954- 21 of 1954.

Medicinal and Toilet Preparation Act 1955(Excise Duties)- 16 of 1955

- f. Drug Price Control order 1970 and 1971.
- g. Pharmacy Act 1948.

## B. PRACTICALS

## Experiments

- 1. Estimation of size of globules.
- 2. Medication of globules and preparation of doses with sugar of milk and distilled water.
- 3. Purity test of sugar of milk, distilled water, ethyl alcohol.
- 4. Determination of specific gravity of distilled water and ethyl alcohol.
- 5. Preparation of dispensing alcohol and dilute alcohol from strong alcohol.
- 6. Trituration of one Drug each up to 6X or 3C.
- 7. Succession in Decimal scale from Mother Tincture to 6X potency (one old and one new method).

- 8. Succession Centesimal scale from Mother Tincture to 3C potency (one old and one new method).
- 9. Conversion of Trituration to liquid potency; Decimal scale 6X to 8X potency.
- 10. Conversion of Trituration to liquid potency; Centesimal scale 3C to 4C.
- 11. Preparation of 0/1 potency (L M Scale) of one Drug.
- 12. Preparation of External applications- Lotion (dressing and eye), Glycerol, Liniment, Ointment (both methods).
- 13. laboratory methods- Sublimation, Distillation, Decantation, Filtration, Crystallisation.
- 14. Writing of prescription.
- 15. Dispensing of medicines.
- 16. Process of taking of minims.
- 17. Identification of drugs (listed in appendix B).
  - a. Macroscopic and Microscopic characteristics of Drug substances- minimum 5 drugs.
  - b. Microscopic study of Trituration of two drugs up to 3X potency.
- 18. Estimation of moisture content using water bath.
- 19. Preparation of Mother Tincture- Maceration (one by old method and one by new method) and Percolation.
- 20. collection of 30 Drugs for Herbarium.
- 21. Visit to Homoeopathic Pharmacopoea Laboratory and visit to a large scale Manufacturing unit of Homopeopathic Medicines (GMP ). Students shall keep detailed visit report as per proforma Annexure-B

#### C. Demonstrations

- 1. General Instructions for practical or clinical Pharmacy.
- 2. Identifications and use of Homoeopathic Pharmaceutical instruments and appliances and their cleaning.
- 3. Estimation of Moisture content using water bath.
- 4. Preparation of Mother Tincture- Maceration and Percolation.

**APPENDIX** 

## PHARMACOLOGICAL ACTION

- 1. Aconite nap
- 2. Adonis vernalis
- 3. Allium cepa
- 4. Argentum nit
- 5. Arsenic alb
- 6. Belladonna
- 7. Cactus G
- 8. Cantharis
- 9. Cannabis ind
- 10. Cannabis sat
- 11. Cinchonna of
- 12. Coftea crud
- 13. Crataegus
- 14. Crotalus hor
- 15. Gelsemium
- 16. Glonoine
- 17. Hydrastis can
- 18. Hyoscynamus n
- 19. Kali bich
- 20. Lachesis
- 21. Lithium carb
- 22. Mercurius cor
- 23. &nbsb;Naja t
- 24. Nitric acid
- 25. Nux vomica
- 26. Passifiora incamata
- 27. &nbsb;Stannum met
- 28. Stramonium
- 29. Stramonium
- 30. Tabacum

## LIST OF DRUGS FOR IDENTIFICATION

- I. VEGETABLE KINGDOM
- 1. Aegle folia
- 2. Anacardium orientale

- 3. Andrographis penniculata
- 4. Calendula offic
- 5. Cassia sophera
- 6. Cinchonna off
- 7. Cocculus indicus
- 8. Coneea cruda
- 9. Colocynth cittrallus
- 10. Crocus sativa
- 11. Croton tig
- 12. Cynodon
- 13. Ficus religiosa
- 14. Holerrhena antidysentrica
- 15. Hydrocotyle
- 16. Justisia adhatoda
- 17. Lobelia inflata
- 18. Nux vomica
- 19. Ocimum
- 20. Opium
- 21. Rauwolfia serpentine
- 22. Rheum
- 23. &nbsb;Saraca indica
- 24. Senna (cassia acutifolia)
- 25. Stramonium met
- 26. Vinca minor
- II. CHEMICALS
- 1. Acetic acid
- 2. Alumina
- 3. Argentum metallicum
- 4. Argentum nitricum
- 5. Arsenic alb
- 6. Calcarea Carb
- 7. Carbo veg (charcoal)
- 8. Graphitis
- 9. Magnesium
- 10. Mercury (the metal)
- 11. Natrum mur
- 12. Sulphur

#### III. ANIMAL KINGDOM

- 1. Apis malefic
- 2. Blatta orientalis
- 3. Formica ruba
- 4. Sepia
- 5. Tarentula cubensis

## Recommended books for Homoeopathic Pharmacy.

#### Text books:-

- 1. A Text Book of Homoeopathic Pharmacy----Mandal and Mandal.
- 2. Augmented Text Book of Homoeopathic Pharmacy-----D.D.Banerjee.
- 3. Art and Science of Homoeopathic Pharmacy-----Sumit Goel.

## Reference Books:-

- 1. Homoeopathic Pharmacy for students and practitioners-----T.P.Elias
- 2. Homoeopathic Pharmacopoeia of India (Vol 1-9)----HPL
- 3. A Treatise on Homoeopathic Pharmacy----N.K.Banerjee & N.Sinha
- 4. Pharmacodynamics----Richard Hughes
- 5. Text Book of Homoeopathic Pharmacy----Mondal
- 6. Principles and Practice of Homoeopathic Pharmacy for students----M.K.Sahani.
- 7. 50 Millesimal Potency in Theory and Practice----Harimohan Choudhary
- 8. 'Oushadha Sasyangal' (Malayalam—2Vols)-----S.Nesamony
- 9. The Genius of Homoeopathy----Stuart Close
- 10. Physiological Materia Medica----W.H. Burt

#### 4.4.HOMOEOPATHIC MATERIA MEDICA

#### Instructions:

Homoeopathic Materia medica is differently constructed as compared to other Materia medicas.

Homoepathy considers that the study of the action of drugs on individual parts or systems of the body or on animal or on isolated organs is only a partial study of life processes under such action

and that it does not lead us to a full appreciation of the action of the medicinal substance. The drug substance as a whole is lost sight of .

Essential and complete knowledge of the drug action as a whole can be ascertained only by qualitative drug proving on healthy persons and this alone can make it possible to elicit all the symptoms of a drug with reference to the psychosomatic whole of a person and it is just such a person as a whole to whom the knowledge of drug action is to be studied.

The Homoeopathic Materia medica consists of a schematic arrangement of symptoms produced by each drug incorporating no theories for explanations about their interpretation or interrelationship.

Each drug should be studied synthentically, analytically and comparatively and this alone would enable a Homoeopathic student to study each drug individually and as a whole and help him to be a good prescriber.

The most commonly indicated drugs for day to day ailments should be taken up first so that in the clinical classes or outdoor duties the students become familiar with their applications and they should be thoroughly dealt with explaining all comparisons and relationships.

Students should be conversant with their sphere of action and family relationships and the rarely used drugs should be taught in outline emphasising only their most salient features and symptoms.

Tutorials must be introduced so that students in small numbers can be in close touch with teachers and can be trained to study and understand Materia medica in relation to its application in the treatment of the sick.

While teaching theerapeutics an attempt should be made to recall the Materia medica so that indications for drugs in a clinical condition can directly flow out from the proving of the drugs concerned.

The student should be encouraged to apply the resources of the vast Materia medica in any sickness and not limit oneself to memorise a few drugs for a particular disease and this Hahnemannian approach will not only help him in understanding the proper perspective of symptoms as applied and their curative value in sickness but will even lighten the burden as far as formal examinations are concerned.

Application of Materia medica should be demonstrated from case records in the outdoor and the in door.

Lectures on comparative Materia medica and therapeutics as well as tutorials should be integrated with lectures on clinical medicine.

For the teaching of drugs, the department should keep herbarium sheets and other specimens for demonstrations to the students and audio visual materials should be used for teaching and training purposes.

There is a large number of homoeopathic medicines used today and much more medicines being experimented and proved at present and more will be added in future and some very commonly used homoeopathic medicines are included in this curriculum for detailed study

it is essential that at the end of this course each student should gain basic and sufficient knowledge of "How to study Homoeopathic Materia Medica" and to achieve this objective, basic and general topic of Materia medica should be taught in detail during this curriculum . General topics should be taught in all the classes.

The medicines are to be taught under the following headings, namely

- 1. Common name, family, habitat, part used, preparaton, constituents (of source material)
- 2. Proving data
- 3. Sphere of action
- 4. Symptomatology of the medicine emphasizing the characteristic symptoms (mental,physical generals and particulars including sensations, modalities and concomitants) and constitution.
- 5. Comparative study of medicines
- 6. Therapeutic applications (applied Materia medica)

## FIRST B.H.M.S

A. Theory:

General topics of Materia medica (including introductory lectures)

- a) Basic materia medica
  - 1. Basic concept of Materia medica
  - 2. Basic construction of various Materia medicas
  - 3. Definition of materia medica
- b) Homoeopathic Materia medica
  - 1. Definition of Homoeopathis Materia medica

- 2. Basic concept and construction of Homoeopathic Materia medica
- 3. Classification of Homeopathic Materia medica
- 4. Sources of Homoeopathic Materia medica
- 5. Scope and limitations of Homoeopathic Materia medica

## List of drugs for first BHMS

- 1. Arsenicum album
- 2. Bryonia alba
- 3. Cinchona officinalis
- 4. Gelsemium
- 5. Lycopodium clavatum
- 6. Natrum muriaticum
- 7. Nux vomica
- 8. Pulsatilla
- 9. Rhus toxicodendron
- 10. Sulphur

Note: there shall be no examination in First BHMS

## 4.5. ORGANON OF MEDICINE AND HOMOEOPATHIC PHILOSOPHY

- (a) Organon of Medicine with Homoeopathic Philosophy is a vital subject which builds up the conceptual base of the physician;
  - (b) It illustrates those principles which when applied in practice enable the physician to achieve results, which he can explain logically and rationally in medical practice with greater competence;
  - (c) Focus of the education and training should be to build up the conceptual base of Homoeopathic Philosophy for use in medical practice.
- II Homoeopathy should be taught as a complete system of medicine with logical rationality of

its holistic, individualistic and dynamic approach to life, health, disease, remedy and cure and in order to acheive this, integration in the study of logic, psychology and the fundamentals of Homoeopathy becomes necessary.

- (a) It is imperative to have clear grasp of inductive and deductive logic and its application and understanding of the fundamentals of Homoeopathy;
  - (b) Homoeopathic approach in therapeutics is a holistic approach and it demands a comprehension of patient as a person, disposition, state of his mind and body, along with the study of the disease process and its causes;

A.

- (c) Since Homoeopathy lays great emphasis on knowing the mind, preliminary and basic knowledge of the psychology becomes imperative for a homoeopathic physician and introduction to psychology will assist the student in building up his conceptual base in this direction.
- IV The department of organon of medicine shall co-ordinate with other departments where students are sent for the pre-clinical and clinical training and this will not only facilitate integration with other related subjects but also enhance the confidence of

the students when they will be attending speciality clinics.

## SYLLABUS: FIRST B.H.M.S

#### Theory:

- 1. Introductory lectures
  - 1.1. Evaluation of medical practice of the ancients (Prehistoric Medicine, Greek Medicine, Chinese medicine, Hindu medicine and Renaissance) and tracing the empirical, rationalistic and vitalistic thoughts.
  - 1.2. Short history of Hahnemann's life, his contributions ,and discovery of Homoeopathy, situation leading to discovery of Homoeopathy
  - 1.3. Brief life history and contribution of early pioneers of homoeopathy like C.V. Boenninghausen , J.T.Kent, C. Hering, Rajendra Lal Datta, Sircar
  - 1.4. History and Development of Homoeopathy in India, U.S.A and European countries
  - 1.5. Fundamental Principles of Homoeopathy
  - 1.6. Basic concepts of:
  - 1.6.1. Health: Hahnemann's concept and modern concept

1.6.2. Disease: Hahnemann's concept and modern concept

1.6.3. Cure

1.7. Different editions and construction of Hahnemann's Organon of Medicine

## 2. Logic

To understand organon of medicine and homoeopathic philosophy, it is essential to be acquainted with the basics of LOGIC to grasp inductive and deductive reasonings.

Priliminary lectures on inductive and deductive logic (with reference to philosophy book of Suart Close, Chapter 3 and 16)

## 3. Psychology

- 3.1. Basics of Psychology.
- 3.2. Study of behaviour and intelligence.
- 3.3. Basic concepts of sensation and perception.
- 3.4. Emotion, motivation, personality, anxiety, conflict, frustration, depression, fear, psychosomatic manifestation.
- 3.5. Dreams, memory, attention, learning, thinking
- Aphorism 1 to 28 of Organon of medicine with respect to corresponding homoeopathic philosophy – Kent, H.A.Robert, Stuart Close
- 5. Homoeopathic Prophylaxis

## List of Text Books for I BHMS

- 1.Organon of thand Medicine th translated 65 with an appendix
- 2. Samuel Hahnemann His Life and Works by Richard Haehl
- 3. General Psychology by S K Mangal
- 4. History of Medicine Dr Samareendar Reddy
- 5. Pioneers of Homoeopathy by Mahendra Singh

### 5.APPENDIX

### 5.1.TEACHING PLAN

### 5.1.1. Anatomy \*

First semester- (6 Months)

Theory (100 hrs)

### 1) General anatomy & Microanatomy- 20 Hrs

Introduction Cell & Cell division Genetics & Applied genetics Tissues-Classification & Structure Skin

### 2) General embryology- 10 Hrs

Spermatogenesis
Oogenesis, ovarian cycle, menstrual cycle
Fertilisation, implantation& changes
Formation of embryonic Disc & germ layers
Placenta, Foetal membranes, Umbilical cord.

### 3) Upper limb - 20 Hrs Bones & muscles

Axilla
Brachial plexus
Mammary gland
Shoulder joint
Palmar spaces
Seminars (Give importance to applied anatomy)
Elbow joint, Wrist joint, Carpo metacarpal joint
Vessels of upper limb

### 4) Lower limb-20 Hrs

Nerves- radial, median & ulnar

Bones & muscles
Lumbar & sacral plexus
Vessels
Hip joint, Knee joint, Ankle joint, Arches of foot
Popliteal fossa
Seminars (Give importance to applied anatomy)
Joints of foot

Femoral triangle & adductor canal

### 5) Thorax-20 Hrs

Thoracic wall

Pleura &lungs

Mediastinum, Contents

Pericardium, blood supply of heart

Foetal circulation

Development & anomalies

Seminars (Give importance to applied anatomy)

Chambers of heart & Great vessels

Practicals (150 hrs)

Demonstration of slides

Dissection of Upper limb, Lower limb, Thorax

First internal assessment Examination- (During the last month of the semester)-10 Hrs

## Second semester-(6Months)

### Theory (100 hrs)

## 6) Abdomen & pelvis- 35 Hrs

Anterior abdominal wall&rectus sheath

Bones

Diaphragm

Inguinal canal

Peritoneum

Stomach

Liver, Portal vein

Kidney, Ureter, Urinary bladder

Rectum & anal canal

Prostate & male urethra

Uterus

Perineal pouches, Ischioanal fossa

Development & anomalies

## Seminars (Give importance to applied anatomy)

Duodenum, Pancreas

Suprarenal glands

Pudental canal

Pelvic floor

### 7) Head&Neck-25 Hrs

Scalp

Bones

Tempero mandibular joints

Thyroid gland

Pharynx

Larynx

Face-Muscles, Nerves&Vssels

Special senses-

Eye ball-Layers, Muscles

Tongue

Development & anomalies

Seminars (Give importance to applied anatomy)

Triangles of neck, Nasal cavity&PNS, Salivary glands.

### 8) Brain & Spinal cord - 30 Hr

Meninges, Dural venous sinuses
Cerebrum, Sulci, gyri&Functional areas of brain, internal structures
Thalamus& related structures
Mid brain, Pons, Cerebellum, medulla oblongata
Ventricles of brain, Blood supply of brain
Cranial nerves, Spinal cord,

Practicals - (125 hrs) Demonstration of Slides

Dissection of Abdomen, Head and Neck, Brain & Spinal cord

### Second Internal Assessment Examination- (Model Examination)

(During the last month of the Semester) - **10 Hrs**University Examination- In the 12<sup>th</sup> month

### 5.1.2.PHYSIOLOGY & BIOCHEMISTRY-Teaching Plan

SI no.	Chapter	Hours
1.	General physiology	6
2.	Body fluids	20
3.	Cardio-vascular system	20
4.	Respiratory system and environmental physiology	15
5.	Digestive system	12
6.	Renal physiology and skin	14
7.	Endocrionology	14
8.	Reproductive system	8
9.	Central nervous system	27
10.	Special senses	10

11.	Nerve muscle physiology	10
12.	Bio-physical sciences	02
13.	Carbohydrates	15
14.	Lipids	10
15.	Proteins	10
16.	Enzymes	5
17.	Vitamins	7
18.	Minerals	5
19.	Organ function test	3

### 5.1.3.HOMOEOPATHIC PHARMACY -Teaching Plan.

Schedule of topics come under the syllabus and the hours required for teaching the same can be prepared based on the distribution of hours given below.

### A. Theory—100Hrs.

- 1. General concepts and orientation----- 15hrs.
- 2. Raw materials, Drugs and Vehicles-----25hrs.
- 3. Homoeopathic Pharmaceutics-----25hrs
- 4. Pharmacodynamics & Pharmacognosy (Pharmacology)---10hrs.
- 5. Quality control-----10hrs.
- 6. Legislation pertaining to Homoeopathic Pharmacy----15hrs.

First semester examination may be conducted in the last 2 weeks of the 5<sup>th</sup> month. The topics of this examination comprises, General concepts and orientation; Raw materials, Drugs and Vehicles; Mother Tincture and Drug Dynamisation. The remaining topics may be completed before the model examination, which is to be conducted in the 11<sup>th</sup> month. All the topics should be included in the model examination.

### B. Practicals----80Hrs.

There should be a practical examination in the first semester examination. All the practicals already done before the first semester examination should be included in this examination. Students should produce their practical record during the examination.

### C. Demonstrations----20Hrs.

### 5.1.4. HOMOEOPATHIC MATERIA MEDICA

#### **TEACHING PLAN: FIRST BHMS**

Theory 70hrs

- 1. Basic concept of Materiamedica, basic construction of various Materiamedicas (5hours)
- 2. Definition of Materiamedica, definition of Homoeopathic Materiamedica(5hours)
- 3. Basic concept and construction of Homoeopathic Materiamedica (5hours)
- 4. Classification of Homoeopathic Materiamedica(5hours)
- 5. Sources of Homeopathic Materiamedica (5 hours)
- 6. Scope and limitations of Homoeopathic Materiamedica (5hours)
- 7. Arsenicum album/Bryonia alba (8Hrs)
- 8. Cinchona officinalis/Gelsemium (8hrs)
- 9. Lycopodium/ Natrummuriaticum(8hrs)
- 10. Rhustoxicodendron/Sulphur (8hrs)
- 11. Nux vomica/ Pulsatilla(8hrs)

### 5.1.5. ORGANON OF MEDICINE & HOMOEOPATHIC PHILOSOPHY

#### **TEACHING PLAN-FIRST BHMS**

### 1st semester (35 hours)

History of medicine - 6 hours

Life history of Hahnemann - 6 hours

Pioneers of Homoeopathy - 4 hours

Development of Homoeopathy in India, USA and other european countries - 3 hours

Fundamental principles of Homoeopathy - 7 hours

Logic - 4 hours

Concept of health, disease and cure and Homoeopathic prophylaxis - 3 hours

Different editions of organon and ground plan - 2 hours

### 2<sup>nd</sup> semester (35 hours)

Aphorism 1 to 28 - 10 hours

Psychology - 25 hours

## 5.2. MODEL QUESTION PAPERS

### **5.2.1. ANATOMY**

## Scheme of question paper

### Theory

Paper-I (100 marks)

General anatomy, Head, face and neck, Central nervous system, Upper extremities and Embryology

SI	Topic	Long	Short	Short	Weightage
No		Essays	Essays	Answers	of Marks
1	General Anatomy	_	1	2	14
2	Embryology	_	1	2	14
3	Head, Neck, Brain, Special Senses	1	2	4	43
4	Upper Extremity	1	1	2	29
	Total questions	2	5	10	17
	Total Marks	30	40	30	100

Paper-II (100 marks)

Thorax, Abdomen, Pelvis, Lower extremities and Histology (Microanatomy)

SI	Topic	Long	Short	Short	Weightage
No		Essays	Essays	Answers	of Marks
1	Thorax	1	1	2	29
2	Abdomen&Pelvis	1	2	2	37
3	Lower Extremity	-,	2	3	25
4	Histology		_	3	9
	Total questions	2	5	10	17
7	Total Marks	30	40	30	100
	1				

### MODEL QUESTION PAPERS

# SRI SATYA SAI UNIVERSITY OF TECHNOLOGY AND MEDICAL SCIENCE ,SEHORE 466001 M.P.

## FIRST BHMS PROFESSIONAL DEGREE EXAMINATIONS

### ANATOMY PAPER - I

Time: 3Hrs.

[Draw diagrams wherever necessary.]

Max.marks: 100

(Answer all questions)

Long Essay

(2x15=30)

1) Describe general Anatomy, connection and contents of middle ear cavity.

{5+5+5=15}

2) Describe the brachial plexus with special emphasis to the formation, branches and applied anatomy. {5+5+5=15}

Short Essay

(5x8=40)

- 3) What are Joints, Classify the joints.
- 4) Describe the formation of Placenta, What is placental barrier.
- 5) Describe the origin, insertion, nerve supply and action of Extra ocular muscle.
- 6) Describe the fourth ventricle.
- 7) Describe Anastomosis around Elbow joint and its clinical importance

Short Answers

(10x3=30)

- 8) Cartilagenous ossification.
- 9) End artery with example.
- 10)Morulla.
- 11) Extra embryonic mesoderm
- 12) Falx cerebri.
- 13) Foramen ovale.
- 14) Strap muscles of neck
- 15) Palatine tonsil.
- 16) Carpal tunnel syndrome.
- 17) Biceps brachi.

### Answer key - Paper 1

(Question 1&2 carry 15 marks each)

- 1. Middle ear –General features, connections, contents
- 2. Brachial plexus Formation, Branches Applied anatomy

(Question No. 3 -7carry 8 marks each)

- 3. Joints -classification ,eg.
- 4. Placenta -Formation, placental barrier
- 5. Extra occular muscles -origin ,insertion N.supply and action
- 6. Fourth ventricle-Boundaries ,general features,content
- 7. Elobow joint –anastamosis ,clinical importance

(Question No.8 -17 carry 3 marks each)

- 8. Cartilagenous ossification –furtherdevelopment with Eg.
- 9. End artery -Description, eg, clinical importance
- 10. Morulla -cell stage, structure
- 11. Extra embryonic mesoderm- Where it is seen, Further development
- 12. Falx cerebri- Position, attachment
- 13. Foramen ovale- structures passing
- 14. Strap muscles of neck Names
- 15. Palatine tonsils-Position, general features
- 16. Carpal tunnel syndrome –Nerve involved, location, changes.
- 17. Biceps Brachi Attachment , N. S upply

# SRI SATYA SAI UNIVERSITY OF TECHNOLOGY AND MEDICAL SCIENCES, SEHORE

## FIRST BHMS PROFESSIONAL DEGREE EXAMINATIONS

### ANATOMY PAPER -II

Time: 3Hrs.

[Draw diagrams wherever necessary.]

Max.marks: 100

(Answer all questions)

Long Essay

(2x15=30)

- 1) Describe Mediastinum, Explain boundaries and contents of Superior Mediastinum, with clinical significance. {5+5+5=15}
- 2) Describe portal vein Explain three sites of porto-caval anastomosis with clinical significance. {5+5+5=15}

**Short Essay** 

(5x8=40)

- 3) Right Atrium
- 4) Abdominal aorta
- 5) Prostate
- 6) Femoral triangle
- 7) Arches of foot

**Short Answers** 

(10x3=30)

- 8) Root of right lung
- 9) Sinuses of pericardium
- 10) Foramen of Winslow
- 11) Urogenital diaphragm
- 12) Intercondylar region of tibia
- 13) Sustentaculam tali
- 14) Iliotibial tract
- 15) Histology of liver
- 16) Hyaline cartilage
- 17) Transitional epithelium

Answer Key-Paper 11

(Question paper 1&2 carry 15 marks each)

Meadiastinum-Definition , classification

, Sup. Meadiastinum Boundaries & Contents, Clinical importance

2. Portal vein – Formation, Parts, Termination, sites of portocaval anstamosis, Clinical importance

(.Question No.3 -7 carry 8 marks each)

3.Rt.Atrium

Ext. Features, Surface marking, Openings, Internal features, interatrial septum, Development

4. Abdominal aorta

Course, Important relations Branches

5. Prostate

External Features, Location, True and False capsule – formation, Arterial supply, venous drainage

6. Femoral Triangle-Boundaries, Contents

7. Arches of foot - Division, Formation, Clinical anatomy

(Question No. 8-17 carry 3 marks each)

8. Root of lung

Structures, Relation

9. Snuses of Pericardium

Types, Position

10. Foramen of Winslow

Location ,Boundaries

11. Urogenital diaphragm

Formation, Division

12.Intercondylar region of Tibia

Attachment , Division

13. Sustentaculum tali

What is it, attachment

14. Iliotibial tract - How it is Formed, Attachment, Muscles attached to it

15. Histology of Liver

Diagram with eosin and hae matoxilin pencil, Mark Lobule, portal triad, central vein, sinusoids

16. Histology of Hyaline cartilage Diagram, Mark cell nest, chondrocytes,

Perichondrium

17. Transitional epithelium-description, Location, function, identifying features

## Practical

The practical including viva voce or oral examination includes the following: - Marks-200 Viva- Internal Examiner-50 100 Marks

External Examiner-50

Distribution of marks

Marks

Knowledge of dissected parts-

Practical Viva

30

Surface anatomy

Viscera

(Spotting- 8x2.5 = 20)

Bones

(\$potting-8x2.5 = 20)

Spotting (including Radiology and Histology)

(4X5=20)

Maintenance of practical record

10

Total

200

## 5.2.2.PHYSIOLOGY & BIOCHEMISTRY

## Scheme of question paper

## PAPER-I

NO:	TOPIC	Long essays (15 marks)	Short essays (8 marks)	Short answers (3 marks)	Weightage Of marks
1.	General physiology	=	-	2	6
2.	Body fluids	1	1.	1	26
3.	Cardio-vascular system	1	-	2	21
4.	Respiratory system	x=	2	1	19
5.	Excretory system	s=.	2	1	19
6.	Regulation of body temperature & skin	1=	=	3	9
7.	Total				100

## PAPER-II

NO:	TOPIC	Long essays (15 marks)	Short essays (8 marks)	Short answers (3 marks)	Weight age Of marks
1	Central nervous system	-	1	2	14
2.	Digestive system	-	1	v <del>-</del>	8
3.	Endocrine & Reproductive system	1	-	2	21
4.	Special senses	=	1	-	8
5.	Biochemistry	1	2	6	49
6.	Total				100

### MODEL QUESTION PAPERS

## SRI SATYA SAI UNIVERSITY OF TECHNOLOGY AND MEDICAL SCIENCES, SEHORE

## FIRST BHMS PROFESSIONAL DEGREE EXAMINATIONS

Physiology & Biochemistry- PAPER – I

Time: 3Hrs.

[Draw diagrams wherever necessary.]

Max.marks: 100

(Answer all questions)

Long Essay

 $(2 \times 15 = 30 \text{ marks})$ 

- 1. Define erythropoiesis and explain the different stages of erythropoiesis with the help of a diagram. Explain the extrinsic mechanism of Coagulation.
- 2. Define Cardiac output. Describe the factors affecting Cardiac output.

Short essay

(5 X 8 = 40 marks)

- 3. Classification and functions of WBC
- 4. Hypoxia and its different types.
- 5. Explain the transport of oxygen with the help of ODC.
- 6. Explain the mechanism of Concentration of urine.
- 7. Note on Juxta-glomerular apparatus & Renin angiotensin mechanism

Short answer

 $(10 \times 3 = 40 \text{ marks})$ 

- 8. E.S.R
- 9. Caisson disease
- 10. Micturition reflex
- 11. Neuromascular junction
- 12. Properities of cardiac nuscle
- 13. Chronaxia
- 14. Active transport
- 15. R.M.P
- 16. Radial pulse
- 17. Normal E.C.G

### Answer key

1. Erythropoiesis

Definition - 1 mark; stages - 6; factors of coagulation - 3; Mechanism - 5

2. Cardiac output

Definition - 2; factors affecting - 13

3. WBC

Classification - 4; function - 4

4. Hypoxia

Definition - 1; Types - 7

5. ODC

Sgnificance - 3; factors affecting - 3; graph -2

6. Concentration of urine

Formation - 2; counter current mechanism - 4; medullary gradient - 2

7. JGA

Diagram - 1; explanation - 3; Renin-angio mechanism - 4

8. ESR

Definition - 1; factors - 1; significance - 1

9. Caisson disease

Cause - 1; effects - 2

10. Micturition reflex

Innervation - 1; mechanism of action - 2

11. Neuromascular junction

Mechanism - 2; diagram - 1

12. Properties of cardiac muscle

Explanation -3

13. Chronaxia

Definition - 1; significance -2

14. Active transport

Definition -1; explanation - 2

15. RMP

Definition - 1; value - 1; explanation - 1

16. Radial pulse

Rate-1; method to read - 2

17. EOG: Diagram-1; waves-1; importance-1

# SRI SATYA SAI UNIVERSITY OF TECHNOLOGY AND MEDICAL SCIENCES, SEHORE

## FIRST BHMS PROFESSIONAL DEGREE EXAMINATIONS

## Physiology & Biochemistry- PAPER - II

Time: 3Hrs.

[Draw diagrams wherever necessary.]

Max.marks: 100

(Answer all questions)

Long Essay

 $(2 \times 15 = 30 \text{ marks})$ 

- 1. Explain the biochemical functions of Vitamin A including source, requirement and deficiency manifestation.
- 2. Name the anterior Pituitary hormones and explain the functions & deficiency manifestation of growth hormone.

Short essay

(5 X 8 = 40 marks)

- 3. Movements of small intestine
- 4. Name the descending tract & explain cortico spinal tract.
- 5. Errors of refraction
- 6. Explain TCA cycle with note on energetics
- 7. Beta oxidation of fatty acids

Short answer

(10 X 3 = 40 marks)

- 8. Ovulation
- 9. Testosterone
- 10. C.S.F
- 11. Synapse
- 12. Ketone bodies
- 13. Lipotropic factors
- 14. Oxidative deamination
- 15. Iso-enzyme
- 16. Competitive inhibition
- 17. Function of Calcium

### Answer key

1. Vitamin A

Function - 4; daily requirement -1; deficiency - 10

2. Anterior Pituitary

Name - 3; functions - 7; deficiency - 5

3. Movements of small intestine

Peristalitic - 3; pendular - 3; segmental - 2

4. Descending tract

Pyramindal - 3; cortico-spinal tract - 5

5. Errors of refraction

Ametropia-4; aniosmetropia-1; astigmatism-2; presbyopia-1

6. Kreb's cycle

Diagram-1; explanation-5; energetics-2

7. Beta oxidation

Diagram-1; explanation-5; energetics-2

8. Ovulation

Definition -1; process-2

9. Testosterone

Function - 3

10. CSF

Properties-1; function-2

11. Synapse

Classification-1; function-2

12. Ketone bodies

Name-1; formation-2

13. Lipotropic factors

Name-1; function-2

14. Oxidative deamination

Definition-2; example-1

15. Iso-enzyme

Explanation-2; example-1

16. Competitive inhibition

Explanation-2; example-1

17. Function of Calcium

Functions-3

## 5.2.3. HOMOEOPATHIC PHARMACY

## Scheme of Question Paper.

I.THEORY(100MARKS)
The distribution of chapter wise marks in written paper may be as follows

SL No	Topic	Marks	Question paper blueprint	
1	General concepts & orientation			
1.	History of Pharmacy with emphasis on emergence of Homoeopathic Pharmacy			
2.	Official and unofficial Homoeopathic			
	pharmacopoeia(Germany, Britain, U.S.A., India)			
3.	Important terminologies like scientific		20	
	names,commom names,synonyms	8		
4.	Definitions in Homoeopathic Pharmacy			
5	Components and Branches of pharmacy	4.0	0.0	
6.	Weights and measurements	10	8+3	
7	Nomemdature of Homoeopathic drugs with their anomalies		(1SE+1SA) (11)	
8	Speciality and Originality of Homoeopathic Pharmacy		/ - 1	
9	Relation of Homoeopathic Pharmacy with Materia			
	Medica, Organon of medicine and National economy			
11	Raw Material:Drugs and Vehicles	25	15+8+3+3 (1LE+1SE+ 2SA) (29)	
1	Sources of Drug(Taxonomic classification with reference to utility)			
2	Collection of drug substances			
3	Vehicles			
4	Homoeopathic Pharmaceutical Instruments and appliances	10 =		
III	Homoeopathic Pharmaceutics			
1	Mother tincture -Preparationold and new methods, Preservation of Mother tinctures.			
2	Dryg dynamisation or Potentisation, scales of potentisation, preservation of potentised medicines		15+8+3+3+3	
3	External application(focus on scope of Homoeopathic lotion,glycerol,linement ointment and			
1	others)  Doctrine of signature		(1LE+1SE+	
5	Posology(focus on basic principles related aphorisms		3SA)	
3	of Organon OfMedicine)	35	(32)	
6	Presription writing, commonly used abbreviations with meaning.			

7	Concept of Pla	acebo	~			
8	PharmaconomyRoutes of administration of					
	Homoeopathi	cdrugs				
9	Dispensing of medicines			4.5	14	
10	Basics of adverse drug reactions and pharmaco –				1	
	vigillanc		d .			
11	Phyto chemist	ry			Aug.	
12	Pharmacopall	axy				
IV	Pharmacodynamics and Pharmacognosy					
1	Homoeopathi	c Pharmacodynamics				
2	Drug proving(	related aphorisms105-	145 of Organon			
	Of Medicine),	merits and demerits of	Human and	10	8+3	
	Animal provin	gs			(1SA+1SE)	
3	Pharmacologic	cal study of drugs listed	d in appendix –A		(11)	
V	Quality Contro	oll				
1	Standardisation	on of Homoeopathic me	edicinesRaw			
	materials and	finished products				
2	Good manufacturing practices, Industrial pharmacy			10	3+3	
3	Homoeopathi	c Pharmacopoea Labor		(2SA) (6)		
	Functions and	activities, relating to qu				
	drugs					
VI	Legislations p	ertaining to Pharmacy				
1	The Drugs and	Cosmetic Act-1940(23	3 of 1940)in			
	relation to Ho	noeopathy				
2	The Drug and	Cosmetic Rule 1945(in				
	Homoeopathy	<b>'</b> )				
3	Poisons Act 19	19(12 of 1919)				
4	The Narcotic D	Orug and Psychotropic	Substances		0.2	
	Act 1985(61 of	1985)(Dangerous Drug	g Act)			
5	Drug and Mag	ic				
	7	ectionable Advertisem	10	8+3 (1SE+1SA)		
	1954(21 Of 19	54)	(4)			
6	Medicinal and	Toilet preparations(Ex	cise		(11)	
	Duties)Act 195					
7		trol order1970 and 19	71			
8		Pharmacy Act 1948				
	Total		100 MA	ARKS		
Type of Questions No. Of Questions Marks per		Marks per Qu	estion	Total		
Long E		02	15		30	
	Essays	05	08		40	
	Answers	10	03		30	
	1.31.31.3					

### **MODEL QUESTION PAPER**

## SRI SATYA SAI UNIVERSITY OF TECHNOLOGY AND MEDICAL SCIENCES, SEHORE

## FIRST BHMS PROFESSIONAL DEGREE EXAMINATIONS

### Homoeopathic Pharmacy

Time: 3Hrs.

[Draw diagrams wherever necessary.]

Max.marks: 100

(Answer all questians)

### Long Essays:-

 What are the different sources of Homoeopathic drugs? Describe drugs from Plant kingdom. [3+12=15]

2. Define Drug dynamisation. Mention the scales and methods of dynamisation. Discuss the advantages of Dynamisation. [2+3+3+7=15]

### Short Essays:-

- 3. Define Pharmacopoeia. Describe HPI.
- 4. Define Vehicle. Classify them with examples. Write the preparation of Sugar of milk.
- 5. Define Mother tincture. Give a brief account on the new methods of preparation of Mother tinctures
- 6. Write about the general outline of Homoeopathic Drug proving.
- 7. Mention the Acts and Rules related to Homoeopathic Pharmacy. Describe the Rules related to Manufacture of drugs. [8x5=40]

### **Short Notes:-**

- 8. Egyptian system of medicine.
- 9. Define Nosodes with few examples.
- 10. Types of Ethyl alcohol.
- 11. Posology.
- 12. Doctrine of Signature.
- 13. Parts of Prescription.
- 14. Pharmacological action of Belladonna.
- 15. Organoleptic Evaluation.
- 16. Paper Chromatography.
- 17. Drugs and Magic remedies act.

[3x10=30]

### ANSWER KEY TO MODEL QUESTION PAPER

### Long Essays:-

- 12. Enlist the sources; Vegetable kingdom, Animal kingdom, Mineral kingdom, Nosodes, Sarcodes, Imponderabilia and Synthetic sources. Detailed writings about whole plant or the parts with at least one example for each.
- 13. Definition, mention scales—decimal, centesimal & 50 millesimal; mention the methods/procedures—trituration & succussion and write the type of substances in which these procedures are needed. Discuss all advantages/ merits of dynamisation.

### Short Essays:-

- 14. Definition; mention types—official & unofficial. Write who publish H.P.I---year of publication of first and subsequent volumes with number of monographs in each--mention different headings comes under monographs.
- 15. Definition; write types—solid, liquid, semisolid with at least one example for each; preparation of sugar of milk and its purification.
- 16. Definition; new methods of mother tincture preparation--maceration & percolation; write the types of drug substances used in each; instruments and arrangements needed; mention differences between the two.
- 17. Definition of drug proving; type of provers used in Homoeopathy; why can't it be done in lower animals or patients; drug proving unit; proving protocol in brief; 'day book'; completely proved drug/ thoroughly proved drug.
- 18. Enlist different Acts and Rules related to Homoeopathic Pharmacy. Mention Part VII-A of Drugs and Cosmetic Act; Write briefly the different Sections and their contents.

### Short Notes:-

- 19. Write the period in B.C---concept of disease causation---some of the means used for treatment---Papyrus.
- 20. Definition---nosodes of plant, animal & human origin with few examples for each.
- 21. Types of alcohol---Absolute, strong, dispensing, dilute with the percentage by volume; rectified spirit; terms, Over Proof & Under Proof.
- Study of doses; definition of dose; types of doses.
- 23. Write what it is; name of the person related to this; at least three examples.
- 24. What is a Prescription; Superscription, Inscription, Subscription & Signatura with contents of each.
- 25. Major centre of action---Brain and meninges, blood vessels, glands, mucous membranes etc; delirium, dryness, intensity of pain, inflammation, redness.
- 26. Evaluation using sense organs---general shape and appearance, colour, odour, taste, texture, smell, external markings, fractures with one example for each.
- 27. Use of Chromatography; advantages of paper chromatography; how it is conducted.
- 28. Otherwise known as Objectionable Advertisement Act--- prevention of exaggerate or extravagant advertisements and to protect the consumer---certain exceptions.