

SRI VENKATESWARA INSTITUTE OF MEDICAL SCIENCES
SVIMS-SRI PADMAVATHI MEDICAL COLLEGE FOR WOMEN
TIRUPATI – 517 507



MBBS COURSE

Agenda

3rd BOARD OF STUDIES MEETING

1st MBBS, 2nd MBBS, 3rd MBBS Part-I & II PROFESSIONALS

*As per NMC Regulations on Graduate Medical Education as amended up to 2023
(Applicable for students admitted to First MBBS from Academic Year 2019-20 Onwards)*

**24-07-2024 (1st MBBS), 25-07-2024 (2nd MBBS),
31-07-2024 (3rd MBBS Part-I), 30-07-2024 (3rd MBBS Part-II)**

SVIMS UNIVERSITY

(A University established by an act of A.P State Legislature)

TIRUPATI

SRI VENKATESWARA INSTITUTE OF MEDICAL SCIENCES SVIMS-SRI PADMAVATHI MEDICAL COLLEGE FOR WOMEN

Tirupati

MBBS COURSE

3rd Board of Studies Meeting held on
24.07.2024(1st MBBS), 25.07.2024 (2nd MBBS),
3rd MBBS Part-I (31.07.2024) & 3rd MBBS Part-II (30.07.2024)

INDEX

| S.No. | Particulars | Page No. |
|-------|--|----------|
| I | New Regulations | |
| | 1. Preamble | |
| | 2. Objectives of the Indian Graduate Medical Training Programme | |
| | 3. National Goals | |
| | 4. Institutional Goals | |
| | 5. Goals for the Learner | |
| | 6. Competency based training programme of the Indian Medical Graduate | |
| | 7. Lifelong learner committed to continuous improvement of skills & knowledge | |
| II | Phase Wise Training and Time distribution for Professional Development | |
| | 1.Training period, time distribution & University Examinations | |
| | 2.Distribution of teaching hours phase wise | |
| | 3. New teaching/learning elements a. Foundation Course b. Early Clinical Exposure c. Electives d. Professional Development including | |

| | | |
|-------------|--|--|
| | Attitude, Ethics and Communication Module (AETCOM) e. Learner-doctor method of clinical training (Clinical Clerkship) f. Assessment i. Eligibility to appear for Professional examinations Attendance and Internal Assessment ii. University Examinations 20 iii. Appointment of Examiner | |
| III | Readmission after discontinuation of study | |
| IV | Migration/ Transfer of candidates | |
| V | Submission of laboratory/ clinical record | |
| VI | Log Book | |
| VII | Malpractice | |
| VIII | Declaration of Class | |
| IX | Award of Degree | |
| X | Academic calendar proposed by NMC | |
| | Table 1: Time distribution of MBBS Program and Examination Schedule – 2023-2024 batch onwards | |
| | Table 2: Distribution of subjects in each Professional Phase | |
| | Table 3: Foundation Course | |
| | Table 4: Distribution of Subject Wise Teaching Hours for 1st MBBS | |
| | Table 5: Distribution of Subject Wise Teaching Hours for 2nd MBBS | |
| | Table 6: Distribution of Subject Wise Teaching Hours for 3rd MBBS part I | |
| | Table 7: Distribution of Subject Wise Teaching Hours for 3rd MBBS part II | |
| | Table 8: Clinical Posting Schedules in weeks | |
| | Table 9: Learner- Doctor program (Clinical Clerkship) | |
| | Table 10 : Marks distribution for various subjects for University Annual Examinations | |
| | Phase wise marks distribution of internal assessment – Theory & Practical | |
| | | |
| | Subject wise Curriculum/Syllabus | |

**SRI VENKATESWARA INSTITUTE OF MEDICAL SCIENCES
SVIMS-SRI PADMAVATHI MEDICAL COLLEGE FOR WOMEN
TIRUPATI**

Members of BOS

- | | |
|--|-------------------|
| 1. Dr Alladi Mohan Dean SVIMS | - Chairman |
| 2. Dr. Usha Kalawat Principal SVIMS-SPMCW, Tirupati | -Member Secretary |
| 3. Dr. Aparna R. Bitla Registrar SVIMS, Tirupati | -Member |
| 4. Dr. V. Vanajakshamma Controller of Examinations SVIMS, Tirupati | -Member |

Subject experts for Anatomy:

- | | |
|--|------------------|
| 5. Dr. C. Sreekanth Professor & HOD Department of Anatomy SVIMS-SPMCW, Tirupati | -Member |
| 6. Dr. D. JagadeeshBabu Professor Department of Anatomy SVMC, Tirupati | -External expert |

Subject experts for Physiology:

- | | |
|--|------------------|
| 7. Dr. M. Sharan B Singh Professor & HOD Department of Physiology SVIMS-SPMCW Tirupati | -Member |
| 8. Dr. V S Bhagyalakshmi Professor & HOD Department of Physiology S.V.Medical College, Tirupati | -External expert |

Subject experts for Biochemistry:

9. Dr. Aparna R. Bitla -Member
Professor & HOD
Department of Biochemistry
SVIMS-SPMCW, Tirupati - Virtual
10. Dr. N. Madhavalatha -External expert
Professor & HOD
Department of Biochemistry
SVMC, Tirupati - Virtual

Subject experts for Pharmacology:

11. Dr. K. Umamaheswara Rao - Member
Professor & HoD
Department of Pharmacology
SVIMS-SPMCW, Tirupati
12. Dr. Ashalatha - External expert
Professor & HOD
Department of Pharmacology
SVMC, Tirupati - Virtual

Subject experts for Pathology:

13. Dr. N. Rukmangadha - Member
Professor & HoD
Department of Pathology
SVIMS, Tirupati
14. Dr. Janaki - External expert
Professor & HoD
Department of Pathology
Shanthi Ram Medical College, Nandyal - Virtual

Subject experts for Microbiology:

15. Dr. B. Venkataramana - Member
Professor & HOD
Department of Microbiology
SVIMS-SPMCW, Tirupati
16. Dr. Animireddy Kishore - External expert
Professor, Department of Microbiology
Apollo Institute of Medical Sciences and Research
Murakambattu, Chittoor - Virtual

Subject experts for Community Medicine:

17. Dr. K. Nagaraj - Member
Professor & HOD
Department of Community Medicine
SVIMS-SPMCW, Tirupati

18. Dr. Pankaj B Shah
Professor & Associate Dean (Research)
Department of Community Medicine
SRMC, Chennai - Virtual
- External expert

Subject experts for Forensic Medicine:

19. Dr. K. Jyothi Prasad
Professor & HoD
Department of Forensic Medicine
SVIMS-SPMCW, Tirupati
- Member
20. Dr. Kilari Bhaskar
Professor & Head
Department of Forensic Medicine & Toxicology
Government Medical College
Eluru - Virtual
- External expert

Subject experts for Medicine:

21. Dr. J. Harikrishna
Professor & HoD
Department of General Medicine
SVIMS, Tirupati
- Member
22. Dr. Ravi. K
Professor & HoD, Department of Medicine
Bangalore Medical College and Research Institute
Fort, K. R. Road, Bangalore - Virtual
- External expert

Subject experts for General Surgery:

23. Dr. Y. Mutheeswaraiah
Professor & HoD
Department of General Surgery
SVIMS-SPMCW, Tirupati
- Member
24. Dr. S. Nagamuneiah
Professor, Department of General Surgery
ACSR Govt., Medical College
Nellore
- External expert

Subject experts for Obstetrics & Gynaecology:

25. Dr. J. Malathi
Professor & HoD
Department of OBG
SVIMS-SPMCW
- Member
26. Dr. Keshava Gangadharan
Professor & HOD
Department of OBG
PES Medical College, Kuppam - Virtual
- External Expert

Subject experts for ENT:

27. Dr. S. B. Amarnath - Member
Professor & HoD
Department of ENT, SVIMS-SPMCW
28. Dr. Ravi. D - External Expert
Professor & Head, Department of ENT
Mandya Institute of Medical Sciences
Mandya, Karnataka - Virtual

Subject experts for Ophthalmology:

29. Dr. Prabhanjankumar - Member
Associate Professor & HoD
Department of Ophthalmology
SVIMS-SPMCW
30. Dr. V. Vijaya Lakshmi - External Expert
Professor & Head
Department of Ophthalmology
Govt. Medical College, Guntur - Virtual

Subject experts for Pediatrics:

31. Dr. N. PunithPatak - Member
Professor & HoD
Department of Pediatrics, SVIMS-SPMCW
32. Dr. Vinayaka.G - External Expert
Professor & HOD
Subbaiah Institute of Medical sciences
Shimuga - Virtual

Subject experts for Orthopedics:

33. Dr. Venugopal - Member
Associate Professor
Department of Orthopedics
SVIMS-SPMCW
34. Dr Arun H S - External Expert
Professor
Department of Orthopedics
Sri Devaraj Urs Medical College
Tamaka, Kolar - Virtual

##*#*

I. CBME Regulations

1. Preamble:

The new Graduate Medical Education Regulations attempts to stand on the shoulder of the contributions and the efforts of resource persons, teachers and students (past and present). It intends to take the learner to provide healthcare to the evolving needs of the nation and the world.

About 25years have passed since the existing Regulations on Graduate Medical Education, 1997 were notified, necessitating are look at all aspects of the various components in the existing regulations and adapt them to the changing demography, socio-economic context, perceptions, values, advancements in medical education and expectations of stake holders. Emerging healthcare issues particularly in the context of emerging diseases, impact of advances in science and technology and shorter distances on diseases and their management also need consideration. The strong and forward-looking fundamentals enshrined in the Regulations on Graduate Medical Education, 1997 has made this job easier. A comparison between the 1997 Regulations and proposed Graduate Medical Education Regulations, 2019 will reveal that the 2019 Regulations have evolved from several key principles enshrined in the 1997 Regulations.

The thrust in the new regulations is continuation and evolution of thought in medical Education making it more learner-centric, patient-centric, gender- sensitive, outcome -oriented and environment appropriate. The result is an outcome driven curriculum which conforms to global trends. Emphasis is made on alignment and integration of subjects both horizontally and vertically while respecting the strengths and necessity of subject-based instruction and assessment. This has necessitated a deviation from using "broad competencies"; instead, the reports have written end of phase subject (sub) competencies. These "sub-competencies" can be mapped to the global competencies in the Graduate Medical Education Regulations.

The importance of ethical values, responsiveness to the needs of the patient and acquisition of communication skills is underscored by providing dedicated curriculum time in the form of a longitudinal program based on Attitude, Ethics and Communication (AETCOM) competencies. Great emphasis has been placed on collaborative and inter-disciplinary team work, professionalism, altruism and respect in professional relationships with due sensitivity to differences in thought, social and economic position and gender.

2. Objectives of the Indian Graduate Medical Training Programme:

The undergraduate medical education program is designed with a goal to create an "Indian Medical Graduate" (IMG) possessing requisite knowledge, skills, attitudes, values and responsiveness, so that she may function appropriately and effectively as a physician of first contact of the community while being globally relevant. To achieve this, the following national and institutional goals for the learner of the Indian Medical Graduate training program are hereby prescribed.

3. National Goals:

At the end of under graduate program, the SVIMS-SPMCW Graduate should be able to:

1. Recognize "health for all" as a national goal and health right of all citizens and by undergoing training for medical profession fulfill her social obligations towards realization of this goal.
2. Learn key aspects of National policies on health and devote herself to its practical implementation.
3. Achieve competence in practice of holistic medicine, encompassing promotive, preventive, curative and rehabilitative aspects of common diseases.
4. Develop scientific temper, acquire educational experience for proficiency in profession and promote healthy living.
5. Become exemplary citizen by observance of medical ethics and fulfilling social and professional obligations, so as to respond to national aspirations.

4. Institutional Goals:

The Indian Medical Graduates coming out of a SVIMS-Sri Padmavathi Medical College should:

- i. Be competent in diagnosis and management of common health problems of the individual and the community, commensurate with her position as a member of the health team at the primary, secondary or tertiary levels, using her clinical skills based on history, physical examination and relevant investigations.
- ii. Be competent to practice preventive, promotive, curative, palliative and rehabilitative medicine in respect to the commonly encountered health problems.
- iii. Appreciate rationale for different therapeutic modalities; be familiar with the administration of the "essential drugs" and their common side effects.
- iv. Appreciate the socio-psychological, cultural, economic and environmental factors affecting health and develop humane attitude towards the patients in discharging one's professional responsibilities.
- v. Possess the attitude for continued self-learning and to seek further expertise or to pursue research in any chosen area of medicine, action research and documentation skills.
- vi. Be familiar with the basic factors which are essential for the implementation of the National Health Programs including practical aspects of the following:

1. Family Welfare and Maternal and Child Health (MCH);
2. Sanitation and water supply;
3. Prevention and control of communicable and non-communicable diseases;
4. Immunization;
5. Health Education and advocacy;
6. Indian Public Health Standards(IPHS) at various level of service delivery;
7. Bio-medical waste disposal
8. Organizational and or institutional arrangements.

- vii. Acquire basic management skills in the area of human resources, materials and resource management related to health care delivery, general and hospital management, principal inventory skills and counseling.
- viii. Be able to identify community health problems and learn to work to resolve these by designing, instituting corrective steps and evaluating outcome of such measures with maximum community participation.
- ix. Be able to work as a leading partner in health care teams and acquire proficiency in communication skills.
- x. Be competent to work in a variety of health care settings.
- xi. Have personal characteristics and attitudes required for professional life including personal integrity, sense of responsibility and depend ability and ability to relate to or show concern for other individuals.

5. Goals for the Learner:

In order to fulfill these goals, the Indian Medical Graduate must be able to function in the following roles appropriately and effectively:-

- i. Clinician who understands and provides preventive, promotive, curative, palliative and holistic care with compassion.
- ii. Leader and member of the health care team and system with capabilities to collect, analyze, synthesize and communicate health data appropriately.
- iii. Communicator with patients, families, colleagues and community.
- iv. Lifelong learner committed to continuous improvement of skills and knowledge.
- v. Professional, who is committed to excellence, is ethical, responsive and accountable to patients, community and profession.
- vi. Critical thinker who demonstrates problem solving skills in professional practice
- vii. Researcher who generates and interprets evidence

6. Competency Based Training Programme of the Indian Medical Graduate

Competency based learning would include designing and implementing medical education. Curriculum that focuses on the desired and observable ability in real life situations. In order to effectively fulfill the roles, the Indian Medical Graduate would have obtained the following set of competencies at the time of graduation:

Clinician, who understands and provides preventive, promotive, curative, palliative and holistic care with compassion.

- Demonstrate knowledge of normal human structure, function and development from a molecular, cellular, biologic, clinical, behavioral and social perspective.
- Demonstrate knowledge of abnormal human structure, function and development from a molecular, cellular, biological, clinical, behavioral and social perspective.
- Demonstrate knowledge of medico-legal, societal, ethical and humanitarian principles that influence healthcare.
- Demonstrate knowledge of national and regional health care policies including the National Health Mission that incorporates National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM), frameworks, economics and systems that influence health promotion, healthcare delivery, disease prevention, effectiveness, responsiveness, quality and patient safety.
- Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is complete and relevant to disease identification, disease prevention and health promotion.
- Demonstrate ability to elicit and record from the patient, and other relevant sources. Including relatives and caregivers, a history that is contextual to gender, age, vulnerability, social and economic status, patient preferences, beliefs and values.
- Demonstrate ability to perform a physical examination that is complete and relevant to disease identification, disease prevention and health promotion.
- Demonstrate ability to perform a physical examination that is contextual to gender, social and economic status, patient preferences and values.

- Demonstrate effective clinical problem solving, judgment and ability to interpret and integrate available data in order to address patient problems, generate differential diagnoses and develop individualized management plans that include preventive, promotive and therapeutic goals.
- Maintain accurate, clear and appropriate record of the patient in conformation with legal and administrative frameworks.
- Demonstrate ability to choose the appropriate diagnostic tests and interpret these tests based on scientific validity, cost effectiveness and clinical context.
- Demonstrate ability to prescribe and safely administer appropriate therapies including nutritional interventions, pharmacotherapy and interventions based on the principles of rational drug therapy, scientific validity, evidence and cost that conform to established national and regional health programmers and policies for the following:
 - Disease prevention,
 - Health promotion and cure,
 - Pain and distress alleviation, and
 - Rehabilitation and palliation.
- Demonstrate ability to provide a continuum of care at the primary(including home care) and/or secondary level that addresses chronicity, mental and physical disability,
- Demonstrate ability to appropriately identify and refer patients whom may require specialized or advanced tertiary care.
- Demonstrate familiarity with basic, clinical and translational research as it applies to the care of the patient.

Leader and member of the healthcare team and system

- Work effectively and appropriately with colleagues in an inter-professional healthcare team respecting diversity of roles, responsibilities and competencies of other professionals.
- Recognize and function effectively, responsibly and appropriately as a health care team leader in primary and secondary health care settings.
- Educate and motivate other members of the team and work in a collaborative and

collegial fashion that will help maximize the health care delivery potential of the team.

- Access and utilize components of the health care system and health delivery in a manner that is appropriate, cost effective, fair and in compliance with the national healthcare priorities and policies, as well as be able to collect, analyze and utilize health data.
- Participate appropriately and effectively in measures that will advance quality of health care and patient safety within the health care system.
- Recognize and advocate health promotion, disease prevention and health care quality improvement through prevention and early recognition: in a) life style diseases and b) cancer, in collaboration with other members of the health care team.

Communicator with patients, families, colleagues and community

- Demonstrate ability to communicate adequately, sensitively, effectively and respectfully with patients in a language that the patient understands and in a manner that will improve patient satisfaction and health care outcomes.
- Demonstrate ability to establish professional relationships with patients and families that are positive, understanding, humane, ethical, empathetic, and trustworthy.
- Demonstrate ability to communicate with patients in a manner respectful of patient's preferences, values, prior experience, beliefs, confidentiality and privacy.
- Demonstrate ability to communicate with patients, colleagues and families in a manner that encourages participation and shared decision- making.

7. Lifelong learner committed to continuous improvement of skills and knowledge

- Demonstrate ability to perform an objective self-assessment of knowledge and skills, continue learning, refine existing skills and acquire new skills.
- Demonstrate ability to apply newly gained knowledge or skills to the care of the patient.
- Demonstrate ability to introspect and utilize experiences, to enhance personal and professional growth and learning.

- Demonstrate ability to search (including through electronic means), and critically re-evaluate the medical literature and apply the information in the care of the patient.
- Be able to identify and select an appropriate career path way that is professionally rewarding and personally fulfilling.

Professional who is committed to excellence, is ethical, responsive and accountable to patients, community and the profession

- Practice selflessness, integrity, responsibility, accountability and respect.
- Respect and maintain professional boundaries between patients, colleagues and society.
- Demonstrate ability to recognize and manage ethical and professional conflicts.
- Abide by prescribed ethical and legal codes of conduct and practice.
- Demonstrate a commitment to the growth of the medical profession as a whole

II. Phase Wise Training and Time Distribution For Professional Development

The Competency based Undergraduate Curriculum and Attitude, Ethics and Communication (AETCOM) course, as published by the Medical Council of India and also made available on the Council's website, shall be the curriculum for the batches admitted in MBBS from the academic year 2019-20 onwards.

In order to ensure that training is in alignment with the goals and competencies required for a medical graduate, there shall be Foundation Course to orient medical learners to MBBS programme, and provide them with requisite knowledge, communication (including electronic), technical and language skills.

1.Training period, time distribution & University examinations:

SVIMS University shall organize admission timing and admission process in such a way that teaching in the first Professional year commences with induction through the Foundation Course by the 1st of August of each year from academic year 2024-25. There shall be no admission of students in respect of any academic session beyond 30th August from academic year 2024-25 or as per the guidelines notified by NMC from time to time. The University shall not grant admission of any student after the last date specified by NMC.

Every learner shall undergo a period of certified study extending over 4½ academic years, divided into four professional years from the date of commencement of course to the date of completion of examination which shall be followed by one year of compulsory rotating internship.

Each academic year will have at least 39 teaching weeks with a minimum of eight hours of working on each day including one hour as lunch break.

Didactic lectures shall be one third of the schedule two third of the schedule shall include interactive sessions, practical, clinical or/and group discussions. The learning process shall include clinical experiences, problem- oriented approach, case studies and community health care activities.

Teaching and learning shall be aligned and integrated across specialties both vertically and horizontally for better learner comprehension. Learner centered learning methods shall include Early Clinical Exposure, problem-oriented learning, case studies, community- oriented learning, self- directed, experiential learning & Electives.

At the end of each professional year university examination will be conducted. If any student fails to clear university examination, s he will appear in supplementary

examination.

Supplementary examinations and declaration of results shall be processed within 3-6 weeks from the date of declaration of the results of the main examination for every professional year, so that the candidates, who pass, can join the main batch for progression.

If the candidate fails in the supplementary examination of first MBBS, she shall join the batch of next academic/subsequent year. There shall be no supplementary batches. Partial attendance of examination in any subject shall be counted as an attempt.

If the MBBS students' attendance is less than 75% for theory and less than 80% for practical/ clinical training, the student cannot appear in supplementary examination following the regular annual examination. Such student is required to take classes with junior batch commencing in the next academic year to compensate for her attendance deficit, especially the course, she has missed. She will be eligible to appear in the examination in the next academic year only.

However, the college authorities will arrange additional classes to compensate for attendance deficit before the commencement of annual examination.

A candidate, who fails in the First Professional examination, shall not be allowed to join the Second Professional.

No student shall be allowed more than four (04) attempts for first year (first professional MBBS). In these four years, the maximum number of attempts permitted shall be four (04) which include supplementary examination also.

- A candidate, who fails in the second Professional examination, shall be allowed to join the third Professional Part I training, however she shall not be allowed to appear for the examination unless she has passed second professional examination.
- A candidate who fails in the third Professional (Part I) examination shall be allowed to join third Professional part II training, however she shall not be allowed to appear for the examination unless she has passed third Professional (Part I) examination.

Phase wise duration

The period of 4½ years is divided as follows:

Phase I - Total 12 months

Phase I First Professional phase of 12 months including Foundation Course of one week and university exams. It shall consist of - Anatomy,

Physiology, Biochemistry, introduction to Community Medicine, Humanities, Professional development including Attitude, Ethics & Communication (AETCOM) module, family adoption program through village outreach where-in each student shall adopt minimum of three(03) families and preferably at least five (05) families, Pandemic module and early clinical exposure, ensuring alignment & all types of integration and simulation-based learning.

Phase II - Total 12 months

Phase II - Second Professional (12 months) including university exams. It will consist of Pathology, Pharmacology, Microbiology, family visit under Community Medicine, General Surgery, General Medicine & Obstetrics & Gynecology Professional development including AETCOM module, simulation-based learning and introduction to clinical subjects ensuring both alignment & all types of integration.

The clinical exposure to learners will be in the form of learner-doctor method of clinical training in all phases. The emphasis will be on primary, preventive and comprehensive healthcare. Apart of training during clinical postings should take place at the primary level of healthcare. It is desirable to provide learning experiences in secondary health care, wherever possible. This will involve

- i. Experience in recognizing and managing common problems seen in outpatient, inpatient and emergency settings,
- ii. Involvement in patient care as a team member,
- iii. Involvement in patient management and performance of basic procedures.

Phase III - 30months

a. Third Professional Part I (12months, including University exams)

Forensic Medicine and Toxicology, Community Medicine, Medicine & allied, Surgery & allied, Pediatrics and Obstetrics& Gynecology including AETCOM, Pandemic module, Clinical teaching in General Medicine, General Surgery, Obstetrics & Gynecology, Pediatrics, Orthopedics, Dermatology, Community Medicine, Psychiatry, Respiratory Medicine, Radio-diagnosis (& Radiotherapy) and Anesthesiology & Professional development.

b. Electives –one month in 2 blocks, 15 days each will be commenced after annual exam of III MBBS Part I.

**c. Third Professional Part II (18months, including University exam)-
Subjects include:**

- Medicine and allied specialties (General Medicine, Psychiatry, Dermatology, Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis)
- Surgery and allied specialties (General Surgery, Otorhinolaryngology, Ophthalmology, Orthopedics, Dentistry, Physical Medicine and rehabilitation, Anesthesiology and Radio diagnosis).
- Obstetrics and Gynecology (including Family Welfare)
- Pediatrics
- AETCOM module

2. Distribution of teaching hours phase wise.

First, second and third Professional part-I, teaching hours;

Time allotted: 12 months (approx. 52weeks)

Time available: Approx.**39weeks** (excluding13weeks) (39hours/week)

Prelim/University Exam & Results: 9weeks

Vacation: 2 weeks

Public Holidays : 2 weeks

Time distribution in weeks: 39 weeks x 39hours =1521 hours for Teaching-Learning

Final MBBS part-2, teaching hours:

Time allotted: 18months (approx.78weeks)

Time available: Approx. 62 weeks (excluding 16 weeks) (39
hours/ week) Prelim / University Exam & Results: 10 weeks

Vacation: 3 Weeks

Public Holidays: 3 Weeks

Time distribution in weeks: 62 x 39 hrs = 2418 hrs available for Teaching-Learning

(Clinical Postings: 15 hours/week II MBBS on wards included in academic schedule)

These are attached in separate annexure with all relevant tables.

Academic calendar shall be as per the Table 1.

Distribution of subjects for Professional Phase -wise training is given in Table

2. Minimum teaching hours prescribed in various disciplines are given in
Tables 3-7. Distribution and duration of clinical postings is given in Table 8.

Time allotted excludes time reserved for internal University examinations, and vacation.

Second professional clinical postings shall commence before/ after declaration of results of the first professional phase examinations, as decided by the institution/University.

Third Professional parts I and part II clinical postings shall start no later than two weeks after the completion of the previous professional examination.

A total of 25% of allotted time of third Professional shall be utilized for integrated learning with phase I and II subjects. This will be included in the assessment of clinical subjects.

Note:

- The period of training is minimum suggested. Adjustments where required depending on availability of time may be made by the concerned college/institution. This period of training does not include university examination period.
- An exposure to skills lab for atleast two (02) weeks prior to clinical postings shall be made available to all students.

3. New teaching/learning elements

a. Foundation Course

Goal: The goal of the Foundation Course is to prepare a learner to study medicine effectively.

Objectives:

(a) Orient the learner to:

- The medical profession and the physician's role in society
- The MBBS programme
- Alternate health systems i.e. AYUSH in India and history of Medicine
- Medical ethics, attitudes and professionalism
- Healthcare system and its delivery
- National health programmes and policies
- Universal precautions and vaccinations
- Patient safety and biohazard safety
- Principles of primary care (general and community based care)

- The academic ambience
- (b) Enable the learner to acquire enhanced skills in:**
- Language
 - Interpersonal relationships
 - Communication
 - Learning including self-directed learning
 - Time management
 - Stress management
 - Use of information technology, and artificial intelligence
- (c) Train the learner to provide:**
- First-aid
 - Basic life support
 - In addition to the above, learners may be enrolled in one of the following programmes which will be run concurrently:
 - Local language programme
 - English language programme
 - Computer skills
 - These may be done in the last two hours of the day. These sessions must be as interactive as possible.
 - Sports (to be used through the Foundation Course as protected 04hours/week).
 - Leisure and extracurricular activity (to be used through the Foundation Course as projected 02 hours per week).
 - Institutions shall develop learning modules and identify the appropriate resource persons for their delivery.
 - The time committed for the Foundation Course may not be used for any other curricular activity.

- The Foundation Course shall have a minimum of 75% attendance of all students mandatorily. This will be certified by the Dean of the college.
- The Foundation Course shall be organized by the Coordinator appointed by the Dean of the college and shall be under supervision of the Heads of MBBS phase1 departments.
- Every college shall arrange for a meeting with parents/wards of all students and records of the same shall be made available to UGMEB of NMC.

b. Early Clinical Exposure

Objectives: The objectives of early clinical exposure of the first-year medical learners are to enable the learner to:

- Recognize the relevance of basic sciences in diagnosis, patient care and management,
- Provide a context that will enhance basic science learning,
- Relate to experience of patients as a motivation to learn,
- Recognize attitude, ethics and professionalism as integral to doctor- Patient relationship,
- Understand the socio-cultural context of disease through the study of humanities.

Elements

- Basic science correlation: i.e. apply and correlate principles of basic sciences as they relate to patient care (this shall be part of integrated modules).
- Clinical skills: to include basic skills in interviewing patients, doctor-patient communication, ethics and professionalism, critical thinking and analysis and self-learning (this training shall be imparted in the time allotted for early clinical exposure).
- Humanities: to introduce learners to a broader understanding of the socio-economic frame work and cultural context with in which health is delivered through the study of humanities and social sciences.

c. Electives:

Objectives: To provide the learner with opportunities:

- For diverse learning experiences,
- It is mandatory for learners to do an elective. The elective time shall not be used to make up for missed clinical postings, shortage of attendance or other purposes.
- Institutions will pre-determine the number and nature of electives, names of the supervisors, and the number of learners in each
- Elective based on the local conditions, available resources and faculty.
- Electives on topics in areas such as Research methodology, Use of Artificial intelligence and computers in Health and Medical Education, Health Management, Health economics, Indian system of medicine, Medical photography /clinical photography, Global health, Evidence based medicine, Art and music in medicine, Literary activities, etc. may be provided by the college/ institution.
- It shall be preferable that elective choices are made available to the learners in the beginning of the academic year.
- The learner must submit a learning log book based on both blocks of the electives.
- 75% attendance in the electives and submission of log book maintained during electives is required for eligibility to appear in the final MBBS examination/ NEXT.
- Institutions may use part of this time for strengthening basic skill certification.
- The student has to choose electives after completion of 3rd MBBS Part-I Examinations for a period of 1 month, 15 days in each block of laboratory & Clinical specialty departments of SVIMS.

| Block1 | Block2 |
|---|---------------------------------------|
| Laboratory Experience: | Clinical Specialty Experience: |
| Pathology | Emergency room |
| Microbiology | CICU (Department of Cardiology) |
| Biochemistry | Psychiatry |
| Endocrinology lab | Dermatology |
| Pharma co-vigilance and clinical pharmacology | Oncology |
| Rural Community Health center | Endocrinology and Diabetes |
| Research | Nephrology |
| Student initiated research | Neurosurgery |
| Participation in faculty research | Cardiology / Cardiac Surgery |
| Community and epidemiologic surveys | GI surgery |
| Virology | Neurology |
| Blood Bank | Primary Health Center |

d. Professional Development including Attitude, Ethics and Communication Module (AETCOM)

Objectives of the programme: At the end of the programme, the learner must demonstrate ability to:

- Understand and apply principles of bioethics and law as they apply to medical practice and research, understand and apply the principles of
- Clinical reasoning as they apply to the care of the patients,
- Understand and apply the principles of system-based care as they relate to the care of the patient,
- Understand and apply empathy and other human values to the care of the patient,
- Communicate effectively with patients, families, colleagues and other health care professionals,
- Understand the strengths and limitations of alternative systems of medicine,
- Respond to events and issues in a professional, considerate and humane fashion,
- Translate learning from the humanities in order to further his professional and personal growth.

Learning experiences:

- This will be a longitudinal programme spread across the continuum of the MBBS programme including internship,
- Learning experiences shall include small group discussions, patient care scenarios, workshops, seminars, role plays, lectures etc.
- Attitude, Ethics& Communication Module (AETCOM module) developed by the erstwhile Medical Council of India should be used longitudinally for purposes of instruction.

- 75% attendance in Professional Development Programme (AETCOM Module) shall be mandatory for eligibility to appear for final examination in each professional year.

Internal Assessments shall include:

- Written tests comprising of short notes and creative writing experiences, OSCE based clinical scenarios/viva voce.
- At least one question in each paper of each clinical specialty in the University examination shall test knowledge competencies acquired during the professional development programme.
- Skill competencies acquired during the Professional Development Programme must be tested during the clinical, practical and viva voce.

e. Learner-doctor method of clinical training (Clinical Clerkship)

a. Goal:

- To provide learners with experience in
- Longitudinal patient care,
- Being part of the health care team,
- Hands-on care of patients in outpatient and in-patient setting.

b. Structure:

- The first clinical posting in second professional shall orient learners to the patient, their roles and the specialty.
- The learner-doctor programme shall progress as outlined in Table 9.
- The learner shall function as a part of the health care team with the following responsibilities:
 - Be a part of the units out-patient services on admission days,
 - Remain with the admission unit until at least 6 PM except during designated class hours,
 - Be assigned patients admitted during each admission day for whom he will undertake responsibility, under the supervision of a senior resident or faculty member,
 - Participate in the unit rounds on its admission day and will present the assigned patients to the supervising physician,
- Follow the patient's progress throughout the hospital stay until discharge,
- Participate, under supervision, in procedures, surgeries, deliveries etc. of assigned patients,
- Participate in unit rounds on at least one other day of the week excluding the admission day,
- Discuss ethical and other humanitarian issues during unit rounds,
- Attend all scheduled classes and educational activities,
- Document his observations in a prescribed log book/case record.

No learner will be given independent charge of the patient in the capacity of primary physician of the concerned patient.

The supervising physician shall be responsible for all patient care decisions and guide the learner from time to time as required.

f. Assessment:

- A designated faculty member in each unit will coordinate and facilitate the activities of the learner, monitor progress, provide feedback and review the log book/ case record.
- The logbook/ case record must include the written case record prepared by the learner including relevant investigations, treatment and its rationale, hospital course, family and patient discussions, discharge summary etc.
- The log book shall also include records of outpatients assigned. Submission of the log book/ case record to the department is required for eligibility to appear for the final examination of the subject.

i. Eligibility to appear for Professional examinations

The performance in essential component soft training are to be assessed, based on:

(a) Attendance

- There shall be a minimum of 75% attendance in theory and 80% in practical /clinical for eligibility to appear for the examinations in that subject. In subjects that are taught in more than one phase-the learner must have 75% attendance in theory and 80% in practical in each phase of instruction in that subject. There shall be minimum of 80% attendance in family visits under Family adoption programme. Each student shall adopt minimum 3 families and preferably five families. The details shall be as per Family Adoption Program guidelines.
- If an examination comprises more than one subject (for e.g., General Surgery and allied branches), the candidate must have a minimum of 75% attendance in each subject including its allied branches, and 80% attendance in each clinical posting.
- Learners who do not have at least 75% attendance in the electives will not be eligible for the Third Professional –Part II examination/ NEXT.
- A candidate lacking in the prescribed attendance and progress in any subject(s) in theory or practical should not be permitted to appear for the examination in that subject(s).

(b) Internal Assessment:

Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners participate in learning process including assignments, preparation for seminar, clinical case presentation, preparation of clinical case for discussion, clinical case study/problem solving exercise, participation in project for healthcare in the community. Internal assessments shall not be added to summative assessment. However, internal assessment should be displayed under a separate column in detailed marks card.

(c) Learners must have completed the required certifiable competencies for that phase of training and completed the logbook Appropriate for that phase of training to be eligible for appearing at the final university examination of that subject.

(d) Regular periodic examinations shall be conducted throughout the course. There shall be no less than three internal assessment examinations in each subject of first and second professional year, and no less than two examinations in each subject of final professional year. An end of posting clinical assessment shall be conducted for each clinical posting in each professional year.

- When subjects are taught in more than one phase, the internal assessment must be done in each phase and must contribute proportionately to final assessment. For example, General Medicine must be assessed in second Professional, third Professional Part I and third Professional Part II, independently.
- Day to day records and log book (including required skill certifications) should be given importance in internal assessment. Internal assessment should be based on competencies and skills.
- The final internal assessment in a broad clinical specialty (e.g., Surgery and allied specialties etc.) shall comprise of marks from all the constituent specialties. The proportion of the marks for each constituent specialty shall be determined by the time of instruction allotted to each.
- Learners must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40% marks in theory and practical separately) for internal assessment in a particular subject in order to be eligible for appearing at the final University examination of that subject. Internal assessment marks will reflect as separate head of passing at the summative examination.
- The results of internal assessment should be displayed on the notice board within

one week of the test.

- Universities shall guide the colleges regarding formulating policies for remedial measures for students who are either not able to score qualifying marks or have missed on some assessments due to any reason.

ii. University Examinations:

University examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary knowledge, minimal level of skills, ethical and professional values with clear concepts of the fundamentals which are necessary for him/her to function effectively and appropriately as a physician of first contact.

Assessment shall be carried out on an objective basis to the extent possible.

- Nature of questions shall include different types such as structured essays (Long-Answer Questions -LAQ), Short-Answer Questions (SAQ) and objective type questions (e.g. Multiple Choice Questions - MCQ). Marks for each part shall be indicated separately. MCQs shall be accorded a weightage of not more than 20% of the total theory marks. Practical/clinical examinations shall be conducted in the laboratories and /or hospital wards. The objective will be to assess proficiency and skills to conduct experiments, interpret data and form logical conclusion. Clinical cases kept in the examination must be common conditions that the learner may encounter as a physician of first contact in the community. Selection of rare syndromes and disorders a examination cases is to be discouraged. Emphasis should be on candidate's capability to elicit history, demonstrate physical signs, write a case record, analyze the case and develop a management plan.
- Viva/oral examination should assess approach to patient management, emergencies, and attitudinal, ethical and professional values. Candidate's skill in interpretation of common investigative data, X-rays, identification of specimens, ECG, etc. is to be also assessed.

University Examinations shall be held as under:

(a) First Professional

The first Professional examination shall be held at the end of first Professional training (in the 12th month of that training), in the subjects of Anatomy, Physiology and Biochemistry.

(b) Second Professional

The second Professional examination shall be held at the end of second professional training(12th month of that training),in the subjects of Pathology, Microbiology, and Pharmacology.

(C) Third Professional

- Third Professional Part I examination shall be held at end of third Professional part 1 of training (12th month of that training) in the subjects of Community Medicine, and Forensic Medicine including Toxicology
- Third Professional Part II / National Exit Test (NExT) as per NExT regulations- (Final Professional) examination shall be at the end of 17th/18th month of that training, in the subjects of General Medicine, General Surgery, Ophthalmology, Otorhinolaryngology, Obstetrics & Gynecology, and Pediatrics, and allied subjects as per NExT REGULATIONS.

Note:

- At least one question in each paper of each PHASE shall test the knowledge, and competencies acquired during the professional development programme (AETCOM module).
- Skills competencies acquired during the Professional Development Programme (AETCOM module) shall be tested during clinical, practical and viva.

Criteria for passing in a subject: As per the F.No. U/14021/8/2023-UGMEB, dt 1st September, 2023 & clarification provided by NMC vide N-U015 (29)/15/2024-UGMEB/014139, dated 03/04/2024. candidates have to score 50% aggregate of theory & practical and minimum 40% in each separately in Theory and in practical in order to be declared as passed in every subject. No grace marks shall be given. It is also added that these shall be applicable to every examination conducted after the publication of these guidelines, irrespective to batch.

In subjects that have two papers, the learner must secure minimum 40% marks in aggregate (both papers together) to pass in the said subject.

- Internal assessment marks will reflect as a separate head of passing at the university examination.

iii. Appointment of Examiners

- Person appointed as an examiner in the particular subject must have at least four years of total teaching experience as Assistant Professor after obtaining postgraduate degree following MBBS, in the subject in a college affiliated to a recognized medical college (by UGMEB of NMC).

- For Practical /Clinical examinations, there shall be at least four examiners for every learner, out of whom not less than 50% must be external examiners. Of the four examiners, the senior-most internal examiner shall act as the Chairman and coordinator of the whole examination programme so that uniformity in the matter of assessment of candidates is maintained.
- A University having more than one college shall have separate sets of examiners for each college, with internal examiners from the concerned college. External examiner may be from outside the college/university/ state/ union territory.
- There shall be a Chairman of the Board of paper-setters who shall be an internal examiner and shall moderate the questions.
- All eligible examiners with requisite qualifications and experience can be appointed internal examiners by rotation in their subjects.
- All theory paper assessment should be done as central assessment program (CAP) of concerned university.
- Internal examiners shall be appointed from the same institution for unitary examination in the same institution. For pooled examinations at one centre, the approved internal examiners from same university may be appointed.
- The Examiners for General Surgery and allied subjects as well as for General Medicine and allied subjects, shall be from General Surgery and General Medicine respectively.
- There shall be no grace marks to be considered for passing in an examination.

III Re-admission after discontinuation of study:

Every student shall attend her classes (theory, practical and clinical) on all working days unless the leave of absence is sanctioned by the principal/dean. If a student absents continuously for a period of 91 days or more, before one year after discontinuation and seeks permission to attend the course, her application shall be addressed to the dean of the college and shall be forwarded to the registrar while permitting the student to rejoin. The vice-chancellor may grant leave of absence applying such conditions as deemed necessary. Candidates who are absent for continuous period of one year or more without permission shall be deemed to have forfeited the admission and her studentship shall stand cancelled without any further notice.

IV Migration / Transfer of candidates:

To the extent permissible as per the prevailing regulations of the NMC on migration of students from one medical college to another medical college within or outside the state.

V Submission of Laboratory/ Clinical Record.

At the time of Practical Examination each candidate shall submit to the Examiners her laboratory record duly certified by the Head of the Department as a bonafide record of the work done by the candidate.

VI Guidelines for Log Book:

1. The log book is a record of the academic / non-academic activities of the student.
2. Each medical student is responsible for maintaining their logbook.
3. Entries in the log book will be in accordance with activities done in the pre-clinical departments.
4. Some sections of the logbook are subject specific and have to be scrutinized by the head of the concerned department
5. It is the responsibility of the student to enter their activity in respective pages and get them duly signed by the supervising faculty.
6. The log book shall be kept as record work of the candidate for that department specialty and be submitted to department as a Bonafide record of the candidate before appearing for the university examination.

VII Malpractice:

Punishment for use of unfair means (malpractice) in university examinations:

The regulations of malpractice for MBBS course will as per the guidelines of SVIMS University approved vide resolution no. 17 of 30th Academic Senate meeting held on 30/04/2012.

VIII Declaration of Class:

- A candidate having appeared in all the subjects in the same examination and passed that examination in the first attempt and secures 75% of marks or more of grand total marks (university examination) prescribed will be declared to have passed the examination with distinction.
- A candidate having appeared in all the subjects in the same examination and passed that examination in the first attempt and secures 65% of marks or more but less than 75% of grand total marks (university examination) prescribed will be declared to have passed the examination in First Class.
- A candidate having appeared in all the subjects in the same examination and passed that examination in the first attempt and secures 50% of marks or more but less than 65% of grand total marks (university examination) prescribed will be declared to have passed the examination in Pass Class.
- A candidate passing a university examination in more than one attempt shall be placed in Pass class irrespective of the percentage of marks secured by her in the examination.

Note: Please note fraction of marks will not be rounded off for clauses (a), (b) and (c)

IX Award of Degree:

The university on satisfactory completion of the compulsory internship shall award the degree.

X.ACADEMIC CALENDAR PROPOSED BY NMC

Table1: Time distribution of MBBS Programme & Examination Schedule

Proposed Academic Calendar for CBME 2023-24 Batch

| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|------|-----|----------------|--------|-----|-----|-----|----------------------------------|--|---------------------------|-----|-----|-----|
| 2023 | | | | | | | | | 1 | 2 | 3 | 4 |
| 2024 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12-1st Prof, exam, result | 13- 2 nd MBBS | 14 | 15 | 16 |
| 2025 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24- 2 nd Prof exam, result | 25- Final 1st | 26 | 27 | 28 |
| 2026 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36- Final 1 st exam, result | 37- Final 2 nd | 38 | 39 | 40 |
| 2027 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 |
| 2028 | 53 | 54 NEXT-1 | 1- CRM | 2 | 3 | 4 | 5- 2 nd proposed NEXT | 6 | 7 | 8 | 9 | 10 |
| 2029 | 11 | 12-NEXT-Step 2 | | | | | | | | | | |

Legends:

AETCOM: Attitude, Ethics and Communication skills

FAP: Family Adoption Programme (village outreach)

SDL: Self Directed Learning

SGL: Small Group Learning (tutorials/ Seminars/ Integrated Learning)

PCT (mentioned in Assessments): Part Completion Test

Table 2: Distribution of subjects in each Professional Phase

| Phase & year of MBBS training | Subjects & Teaching Elements | Duration (months) | University Examination |
|--|---|--------------------------|-------------------------------|
| First Professional MBBS | <ul style="list-style-type: none"> i. Foundation course -1 week, remaining spread over 6 months at the discretion of college ii. Anatomy, Physiology & Biochemistry, Introduction to Community Medicine, including Family adoption programme (FAP) through village outreach iii. Early Clinical Exposure iv. Attitude, Ethics, and communication Module (AETCOM) including Humanities | 12 months | 1st professional |
| Second Professional MBBS | <ul style="list-style-type: none"> i. Pathology, Microbiology, Pharmacology ii. Introduction to clinical subjects iii. Clinical postings, Family visits for FAP iv. AETCOM | 12 months | 2nd professional |
| Third Professional part 1, MBBS, including Electives 1 month | <ul style="list-style-type: none"> i. Community Medicine, Forensic Medicine and Toxicology, Medicine & allied, Surgery & allied, Pediatrics, Obstetrics & Gynecology ii. Family visits for FAP iii. Clinical postings iv. AETCOM v. Electives-1 month, 2 blocks, 15 days each | 12 months | Final professional -Part 1 |
| Third Professional part 2, MBBS | <ul style="list-style-type: none"> i. General Medicine, Dermatology, Psychiatry, Respiratory medicine, Pediatrics, General Surgery, Orthopedics, Oto-rhinolaryngology, Ophthalmology, Radiodiagnosis, Anesthesiology, Obstetrics & Gynecology (ii) Clinical postings (iii) AETCOM | 18 months | Final Professional- Part II |

Table 3: Foundation Course

(one week + spread over 6 months at the discretion of college)

| Subjects/Contents | Teaching hours |
|--|-----------------------|
| Orientation | 30 |
| Skills Module | 34 |
| Field visit to Community Health Center | 08 |
| Introduction to Professional Development & AETCOM module | 40 |
| Sports, Yoga and extra-curricular activities | 16 |
| Enhancement of language/computer skills | 32 |
| Total | 160 |

Table .4 Distribution of Subject Wise Teaching Hours for 1st MBBS

| Subject | Lectures | SGL | SDL | Total |
|--|-----------------|------------|------------|--------------|
| Foundation Course | | | | 39 |
| Anatomy | 210 | 400 | 10 | 620 |
| Physiology | 130 | 300 | 10 | 440 |
| Biochemistry* | 78 | 144 | IO | 232 |
| Early Clinical Exposure** | 27 | - | 0 | 27 |
| Community Medicine | 20 | 20 | | 40 |
| FAP | | | 27 | 27 |
| (AETCOM)*** | - | 26 | - | 26 |
| Sports and extra-curricular activities | - | - | - | 10 |
| Formative Assessment and Term examinations | - | - | - | 60 |
| Total | 464 | 918 | 30 | 1521# |

* Including Molecular Biology

** Early Clinical exposure hours to be divided equally in all three subjects.

*** AETCOM module shall be a longitudinal programme.

Includes hours for Foundation course also

Table .5 Distribution of Subject Wise Teaching Hours for 2nd MBBS

| Subjects | Lectures | SGL | Clinical Postings* | SDL | Total |
|--|-----------------|------------|---------------------------|------------|--------------|
| Pathology | 80 | 165 | - | 10 | 255 |
| Pharmacology | 80 | 165 | - | 10 | 255 |
| Microbiology | 70 | 135 | - | 10 | 215 |
| Community Medicine | 15 | 0 | 0 | 10 | 25 |
| FAP | 0 | 0 | 30 | | 30 |
| Forensic Medicine and Toxicology | 12 | 22 | - | 08 | 42 |
| Clinical Subjects | 59 | | 540 | - | 599 |
| AETCOM | - | 29 | - | 8 | 37 |
| Sports, Yoga and extra-curricular activities | - | - | - | 20 | 35 |
| Pandemic module | | | | 28 | 28 |
| | | | | | |
| Final total | 316 | 516 | 585 | 104 | 1521 |

Pl. note: Clinical postings shall be before 3 hours per day, Monday to Friday.

There will be 15 hours per week for all clinical postings.

Table 6-Distribution of Subject Wise Teaching Hours for 3rd MBBS part 1

| Subject | Lectures | SGL | SDL | Total |
|----------------------------------|-----------------|------------|------------|--------------|
| Electives | 0 | 156 | 0 | 156 |
| Gen. Med. | 30 | 50 | 10 | 90 |
| Gen Surgery | 30 | 50 | 10 | 90 |
| Obs.&Gyn | 30 | 50 | 10 | 90 |
| Pediatrics | 25 | 30 | 10 | 65 |
| Orthopedics | 15 | 20 | 10 | 45 |
| For. Med. & Tax. | 40 | 70 | 20 | 130 |
| Community Med | 55 | 70 | 20 | 145 |
| FAP(Visits +log book submission) | - | 21 | 10 | 31 |
| Otorhinolaryngology(ENT) | 15 | 20 | 10 | 45 |
| Ophthalmology | 15 | 20 | 10 | 45 |
| Clinical posting | | | 540 | 540 |
| AETCOM | 0 | 19 | 12 | 31 |
| Pandemic module | 18 | 0 | 0 | 18 |
| | | | | |
| Total | 273 | 546 | 672 | 1521 |

Table 7: Distribution of Subject wise Teaching Hours for 3rd MBBS part-II

| Subjects | Lectures | SGL | SDL | Total |
|---------------------------|-----------------|------------|------------|--------------|
| General Medicine | 95 | 155 | 55 | 260 |
| General Surgery | 80 | 140 | 40 | 260 |
| Obstetrics and Gynecology | 80 | 140 | 40 | 260 |
| Pediatrics | 30 | 60 | 30 | 120 |
| Orthopedics | 25 | 35 | 25 | 85 |
| AETCOM | 30 | 0 | 22 | 52 |
| Dermatology | 15 | 10 | 15 | 40 |
| Psychiatry | 15 | 15 | 15 | 45 |
| Otorhinolaryngology (ENT) | 15 | 25 | 15 | 55 |
| Ophthalmology | 15 | 25 | 15 | 55 |
| Radiodiagnosis | 8 | 15 | 15 | 38 |
| Anesthesiology | 8 | 15 | 15 | 38 |
| Pandemic module | 28 | - | - | 28 |
| | | | | |
| TOTAL | 444 | 610 | 302 | 1356 |

Extra hours may be used for preparation of NExT or SDL.

Table no, 8; Clinical Posting Schedules in weeks

| Subjects | Period of training in weeks | | | Total Weeks |
|------------------------|-----------------------------|--------------------|------------------------|----------------|
| | II MBBS | III MBBS Part I | III MBBS Part II | |
| Electives | 0 | 4 | 0 | 4 |
| General Medicine | 9 | 4 | 14 | 27 |
| General Surgery | 7 | 4 | 10 | 21 |
| Obstetrics &Gynecology | 7 | 4 | 10 | 21 |
| Pediatrics | 4 | 4 | 5 | 13 |
| Community Medicine | 4 | 4 | 0 | 8 |
| Orthopedics | 2 | 2 | 4 | 8 |
| Otorhinolaryngology | 0 | 3 | 4 | 7 |
| Ophthalmology | 0 | 3 | 4 | 7 |
| Psychiatry | 0 | 2 | 4 | 6 |
| Radio-diagnosis | 0 | 0 | 2 | 2 |
| Dermatology | 2 | 2 | 2 | 6 |
| Dentistry | 1 | 0 | 0 | 1 |
| Anesthesiology | 0 | 0 | J | 3 |
| Total | 36 | 36 | 62 | 134 |

Table 9 : Learner-Doctor programme(Clinical Clerkship)

| Year of Curriculum | Focus of Learner-Doctor programme |
|---------------------------|---|
| Year 1 | Introduction to hospital environment, early clinical exposure, understanding perspectives of illness, family adoption program |
| Year 2 | History taking, physical examination, assessment of change in clinical status, communication and patient education, family adoption program |
| Year 3 | All of the above and choice of investigations, basic procedures and continuity of care |
| Year 4 | All of the above(except Family adoption programme) and decision making, management and outcomes |

Table 10: Marks distribution for various subjects for University Annual Examinations

| Phase of Course | Theory | Practical's | Passing criteria |
|----------------------------|-------------|-------------|--|
| 1st MBBS | | | |
| Anatomy-2 papers | Paper1-100 | 100 | Mandatory to get 40% marks separately in theory and in practicals; and totally 50% for theory plus practicals. |
| | Paper2-100 | | |
| Physiology-2 papers | Paper1-100 | 100 | |
| | Paper2-100 | | |
| Biochemistry-2 papers | Paper1-100 | 100 | |
| | Paper2-100 | | |
| 2nd MBBS | | | |
| Pathology-2 papers | Paper1-100 | 100 | |
| | Paper2-100 | | |
| Microbiology-2 papers | Paper1-100 | 100 | |
| | Paper2-100 | | |
| | | | |
| Pharmacology-2papers | Paper1-100 | 100 | |
| | Paper2-100 | | |
| Final MBBS part 1 | | | |
| Forensic Med.Tox.-1paper | Paper1- 100 | 50 | |
| Community Med-2 papers | Paper1-100 | 100 | |
| | Paper2-100 | | |
| | | | |

For NEXT, as per NEXT regulations.

Phase wise marks distribution of internal assessment – Theory & Practical

| <i>THEORY</i> | | | | | | | | | | | |
|---|-----------------|-----------------------------|----------------|-------------------------------|---------------------------------------|-----------------------------|-------------------------------|------------------|---------------------|-------------------|-------|
| Name of the Institute: | | | | | | | | | | | |
| DEPARTMENT OF Anatomy/ Physiology/ Biochemistry | | | | | | | | | | | |
| Faculty: MBBS | | Year/Phase-I | | | | | | Date: dd/mm/yyyy | | | |
| | | Formative Assessment Theory | | | Continuous Internal Assessment Theory | | | | | | |
| Roll. No | Name of Student | 1st PCT Theory | 2nd PCT Theory | Prelims Theory (Paper I & II) | Home Assignment | Continuous Class Test (LMS) | Seminar | Museum study | Library Assignments | Attendance Theory | Total |
| | | | | | | | <i>Self-Directed Learning</i> | | | | |
| | | | | 100 | 100 | 200 | 15 | 30 | 15 | 15 | 15 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Professor & Head

Department of

Name of the Institute

PRACTICAL

Name of the Institute:

DEPARTMENT OF Anatomy/ Physiology/ Biochemistry

| Faculty MBBS | | Year/Phase-I | | | | | | | | Date:dd/mm/yyyy | | |
|--------------|----------|-----------------|--|--|-------------------|--|---------------------|------------------|----------|---------------------------------|------------------------|-------|
| | | | Formative Assessment | | | Continuous Internal Assessment (Practical) | | | | | | |
| S. No | Roll No. | Name of Student | 1st PCT Practical/First Ward Leaving Examination | 2nd PCT Practical/First Ward Leaving Examination | Prelims Practical | Log Book (150) | | | | Journal (Record book/Portfolio) | Attendance (Practical) | Total |
| | | | | | | Certifiable skill based competencies (Through OSPE/OSCE/Sports/Exercise/Other) | AETCOM Competencies | SVL Lab Activity | Research | | | |
| | | | 100 | 100 | 100 | 60 | 30 | 40 | 20 | 40 | 10 | 500 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Professor & Head

Department of

Name of the Institute

| <i>THEORY</i> | | | | | | | | | | | |
|--|-----------------|-----------------------------|-------------------|-------------------------------------|---------------------------------------|-----------------------------------|-------------------------------|-----------------|----------------------------|--------------------------|-------|
| Name of the Institute: | | | | | | | | | | | |
| DEPARTMENT OF Pathology/ Pharmacology / Microbiology | | | | | | | | | | | |
| Faculty: MBBS | | Year/Phase-II | | | | | | | Date: dd/mm/yyyy | | |
| | | Formative Assessment Theory | | | Continuous Internal Assessment Theory | | | | | | |
| Roll. No | Name of Student | 1st PCT Theory | 2nd PCT Theory | Prelims Theory (Paper I & II) | Home Assignment | Continuous Class Test (LMS) | Seminar | Museum study | Library Assignme nts | Attenda nce Theory | Total |
| | | | | | | | <i>Self-Directed Learning</i> | | | | |
| | | 100 | 100 | 200 | 15 | 30 | 15 | 15 | 15 | 10 | 500 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Professor & Head Department of Name of the Institute | | | | | | | | | | | |

PRACTICAL

Name of the Institute:

DEPARTMENT OF Pathology/ Pharmacology/ Microbiology

| Faculty MBBS | | Year/Phase-II | | | | | | | | | | Date: dd/mm/yyyy | |
|--------------|----------|-----------------|--|--|-------------------|--|---------------------|------------------|----------|---------------------------------|------------------------|------------------|--|
| | | | Formative Assessment | | | Continuous Internal Assessment (Practical) | | | | | | | |
| S. No | Roll No. | Name of Student | 1st PCT Practical/First Ward Leaving Examination | 2nd PCT Practical/First Ward Leaving Examination | Prelims Practical | Log Book (150) | | | | Journal (Record book/Portfolio) | Attendance (Practical) | Total | |
| | | | | | | Certifiable skill based competencies (Through OSPE/OSCE/Sports/Exercise/Other) | AETCOM Competencies | SVL Lab Activity | Research | | | | |
| | | | 100 | 100 | 100 | 60 | 30 | 40 | 20 | 40 | 10 | 500 | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Professor & Head

Department of

Name of the Institute

| THEORY | | | | | | | | | | | | | | Cumulative percent of Theory Practical |
|--|-----------------|-----------------------------|---------------------|-------------------------------|---------------------------------------|-----------------------------|------------------------|--------------|---------------------|-------------------|-------|--|--|--|
| Name of the Institute: | | | | | | | | | | | | | | |
| DEPARTMENT OF Community Medicine | | | | | | | | | | | | | | |
| Faculty: final MBBS | | | Year/Phase-3 Part-I | | | | Date: dd/mm/yyyy | | | | | | | |
| | | Formative Assessment Theory | | | Continuous Internal Assessment Theory | | | | | | | | | |
| Roll. No | Name of Student | 1st PCT Theory | 2nd PCT Theory | Prelims Theory (Paper I & II) | Home Assignment | Continuous Class Test (LMS) | Seminar | Museum study | Library Assignments | Attendance Theory | Total | Percentage theory (minimum cut of 40%) | Theory + Practical = 500+500 =1000 (minimum cut off 50%) | |
| | | | | | | | Self-Directed Learning | | | | | | | |
| | | | | 100 | 100 | 200 | 15 | 15 | 30 | 15 | 15 | 10 | 500 | % |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Professor & Head Department of Name of the Institute | | | | | | | | | | | | | | |

| THEORY | | | | | | | | | | | | | | Cumulative percent of Theory Practical |
|--|-----------------|-----------------------------|----------------|-------------------------------|---------------------------------------|-----------------------------|------------------------|--------------|---------------------|-------------------|-------|---|--|---|
| Name of the Institute: | | | | | | | | | | | | | | |
| DEPARTMENT OF Forensic Medicine | | | | | | | | | | | | | | |
| Faculty: final MBBS | | Year/Phase-3 Part-I | | | | | | | Date: dd/mm/yyyy | | | | | |
| | | Formative Assessment Theory | | | Continuous Internal Assessment Theory | | | | | | | | Percentage theory (minimum cut of 40%) | Theory + Practical = 375+500 =875 (minimum cut off 50%) |
| Roll. No | Name of Student | 1st PCT Theory | 2nd PCT Theory | Prelims Theory (Paper I & II) | Home Assignment | Continuous Class Test (LMS) | Seminar | Museum study | Library Assignments | Attendance Theory | Total | | | |
| | | | | | | | Self-Directed Learning | | | | | | | |
| | | 100 | 100 | 100 | 10 | 10 | 25 | 10 | 10 | 10 | 375 | % | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| Professor & Head Department of Name of the Institute | | | | | | | | | | | | | | |

| PRACTICAL | | | | | | | | | | | | | |
|--|----------|---------------------|--|--|-------------------|--|--|---------------------|---------------------------------|------------------------|-----------------|--|----|
| Name of the Institute: | | | | | | | | | | | | | |
| DEPARTMENT OF Community Medicine | | | | | | | | | | | | | |
| Faculty Final MBBS | | Year/Phase-3 part-I | | | | | | | | | Date:dd/mm/yyyy | | |
| | | | Formative Assessment | | | Continuous Internal Assessment (Practical) | | | | | | | |
| S. No | Roll No. | Name of Student | 1st PCT Practical/First Ward Leaving Examination | 2nd PCT Practical/First Ward Leaving Examination | Prelims Practical | Log Book (150) | | | Journal (Record book/Portfolio) | Attendance (Practical) | Total | Percentage Practical (Minimum cut off 40%) | |
| | | | | | | Certifiable skill based competencies (Through OSPE/OSCE/Sports/Exercise/Other) | Family adoption programme competencies in comm. medicine | AETCOM Competencies | | | | | |
| | | | | | | 100 | 100 | 100 | 60 | 30 | 30 | 40 | 10 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Professor & Head Department of Name of the Institute | | | | | | | | | | | | | |

| PRACTICAL | | | | | | | | | | | | | | | | | | | |
|--|--|---------------------|--|--|--|--|--|--|-------------------|--|-----------------|--|--|----------------|---------------------|------------------|---------------------------------|------------------------|-----|
| Name of the Institute: | | | | | | | | | | | | | | | | | | | |
| DEPARTMENT OF Forensic Medicine | | | | | | | | | | | | | | | | | | | |
| Faculty Final MBBS | | Year/Phase-3 part-I | | | | | | | | | Date:dd/mm/yyyy | | | | | | | | |
| S. No | | | Formative Assessment | | | Continuous Internal Assessment (Practical) | | | | | Total | | Percentage Practical (Minimum cut off 40%) | | | | | | |
| | | | 1st PCT Practical/First Ward Leaving Examination | | | 2nd PCT Practical/First Ward Leaving Examination | | | Prelims Practical | | | | | Log Book (150) | | | Journal (Record book/Portfolio) | Attendance (Practical) | |
| | | | | | | | | | | | | Certifiable skill based competencies (Through OSPE/OSCE/Sports/Exercise/Other) | | | AETCOM Competencies | SVL Lab Activity | | | |
| | | | | | | | | | | | | 100 | | | 100 | | | | 100 |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| Professor & Head Department of Name of the Institute | | | | | | | | | | | | | | | | | | | |

THEORY

Name of the Institute:

DEPARTMENT OF Paediatrics/ ENT/ Ophthalmology

| Faculty: final MBBS | | Year/Phase- Part-II | | | | | | Date: dd/mm/yyyy | | | |
|---------------------|-----------------|----------------------|-------------------|-------------------------------------|--------------------------------|-----------------------------------|-------------------------------|------------------|------------------------|----------------------|-------|
| | | Formative Assessment | | | Continuous Internal Assessment | | | | | | |
| Roll. No | Name of Student | 1st PCT Theory | 2nd PCT Theory | Prelims Theory (Paper I & II) | Home Assignment | Continuous Class Test (LMS) | Seminar | Museum study | Library Assignments | Attendance Theory | Total |
| | | | | | | | <i>Self-Directed Learning</i> | | | | |
| | | 100 | 100 | 100 | 10 | 25 | 10 | 10 | 10 | 10 | 375 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Professor & Head

Department of

Name of the Institute

PRACTICAL

Name of the Institute:

DEPARTMENT OF Paediatrics/ ENT/ Ophthalmology

| | | | |
|------------------------|--------------------|--|-----------------|
| Faculty: final MBBS | Year/Phase Part-II | | Date:dd/mm/yyyy |
|------------------------|--------------------|--|-----------------|

| | | | Formative Assessment | | | Continuous Internal Assessment (Practical) | | | | | | |
|-------|----------|-----------------|--|--|-------------------|--|---------------------|------------------|----------|---------------------------------|------------------------|-------|
| S. No | Roll No. | Name of Student | 1st PCT Practical/First Ward Leaving Examination | 2nd PCT Practical/First Ward Leaving Examination | Prelims Practical | Log Book (150) | | | | Journal (Record book/Portfolio) | Attendance (Practical) | Total |
| | | | | | | Certifiable skill based competencies (Through OSPE/OSCE/Sports/Exercise/Other) | AETCOM Competencies | SVL Lab Activity | Research | | | |
| | | | 100 | 100 | 100 | 60 | 30 | 50 | 20 | 40 | 10 | 500 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Professor & Head

Department of

Name of the Institute

THEORY

Name of the Institute:

DEPARTMENT OF Medicine/ Surgery/ OBG

| Faculty: final MBBS | | Year/Phase- Part-II | | | | | | | Date: dd/mm/yyyy | | |
|---------------------|-----------------|----------------------|-------------------|-------------------------------------|--------------------------------|-----------------------------------|-------------------------------|-----------------|------------------------|----------------------|-------|
| | | Formative Assessment | | | Continuous Internal Assessment | | | | | | |
| Roll. No | Name of Student | 1st PCT Theory | 2nd PCT Theory | Prelims Theory (Paper I & II) | Home Assignment | Continuous Class Test (LMS) | Seminar | Museum study | Library Assignments | Attendance Theory | Total |
| | | | | | | | <i>Self-Directed Learning</i> | | | | |
| | | 100 | 100 | 200 | 15 | 30 | 15 | 15 | 15 | 10 | 500 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Professor & Head

Department of

Name of the Institute

PRACTICAL

Name of the Institute:

DEPARTMENT OF Medicine/ Surgery/ OBG

| Faculty: final MBBS | | Year/Phase- Part-II | | | | | | | | | Date: dd/mm/yyyy | |
|------------------------|----------|---------------------|---|--|-------------------|---|---------------------|------------------|----------|------------------------------------|---------------------------|-------|
| | | | Formative Assessment | | | Continuous Internal Assessment | | | | | | |
| S. No | Roll No. | Name of Student | 1st PCT Practical/First Ward Leaving Examination | 2nd PCT Practical/second Ward Leaving Examination | Prelims Practical | Log Book (200) | | | | Journal (Record book/Portfolio) | Attendance (Practical) | Total |
| | | | | | | Certifiable skill based competencies (Through OSPE/OSCE/Sports/Exercise/Other) | AETCOM Competencies | SVL Lab Activity | Research | | | |
| | | | | | | 100 | 100 | 200 | 100 | 40 | 40 | 20 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Professor & Head
Department of
Name of the Institute

Department of Community Medicine

TABLE OF CONTENTS

| Sl. No. | Content |
|---------|--|
| 1 | Goal and Objectives |
| 2 | Terms and teaching guidelines |
| 3 | Competencies, Specific learning Objectives, Teaching learning and Assessment methods |
| 4 | Time table |
| 5 | Distribution of AETCOM module |
| 6 | Pandemic Module |
| 7 | Integrated teaching schedule |
| 8 | Family adoption programme |
| 9 | Evaluation methodology |
| 10 | Electives |
| 11 | Recommended Books |

GOALS AND OBJECTIVES

- i) **GOAL:** The broad goal of the teaching of undergraduate students in Community Medicine is to prepare them to function as community and first level physicians in accordance with the institutional goals.

- ii) **OBJECTIVES**

- a) **KNOWLEDGE** At the end of the course, the student should be able to: -

- (1) Describe the health care delivery system including rehabilitation of the disabled in the country;
 - (2) Describe the National Health Programmes with particular emphasis on maternal and child health programmes, family welfare planning and population control.
 - (3) List epidemiological methods and describe their application to communicable and non-communicable diseases in the community or hospital situation.
 - (4) Apply biostatistical methods and techniques.
 - (5) Outline the demographic pattern of the country and appreciate the roles of the individual, family, community and socio-cultural milieu in health and disease.
 - (6) Describe the health information systems.
 - (7) Enunciate the principles and components of primary health care and the national health policies to achieve the goal of 'Health for All'.
 - (8) Identify the environmental and occupational hazards and their control.
 - (9) Describe the importance of water and sanitation in human health.
 - (10) To understand the principles of health economics, health administration, health education in relation to community.

b) SKILLS At the end of the course, the student should be able to: -

- (1) Use epidemiology as a scientific tool to make rational decisions relevant to community and individual patient intervention.
- (2) Collect, analyse, interpret, and present simple community and hospital-based data.
- (3) Diagnose and manage common health problems and emergencies at the individual, family and community levels keeping in mind the existing health care resources and in the context of the prevailing socio-cultural beliefs.
- (4). Diagnose and manage maternal and child health problems and advise a couple and the community on the family planning methods available in the context of the national priorities.
- (5) Diagnose and manage common nutritional problems at the individual and community level.
- (6) Plan, implement and evaluate a health education programme with the skill to use simple audio-visual aids.
- (7) Interact with other members of the health care team and participate in the organisation of health care services and implementations of national health programmes.

c) INTEGRATION:

Develop capabilities of synthesis between cause of illness in the environment or community and individual health and respond with leadership qualities to institute remedial measures for this.

EXPLANATION OF TERMS USED IN THE MANUAL

1. LECTURE

Any instructional large group method including traditional lecture and interactive lecture.

2. SMALL GROUP DISCUSSION

Any instructional method involving small groups of students in an appropriate learning context.

3. SELF DIRECTED LEARNING

A process in which individuals take the initiative, with or without the help of others in diagnosing their learning needs, formulating learning goals, identifying human and material sources for learning, choosing, and implementing appropriate learning methods.

4. FIELD VISIT

Any visit to an organization of public health importance to observe its functioning. It may also include visits to community for family study / clinicosocial case discussion.

5. SKILL ASSESSMENT

A session that assesses the skill of the student including those in the practical laboratory, skills lab, skills station that uses mannequins/ paper case/simulated patients/real patients or **in the community/ field** as the context demands.

6. CORE

A competency that is necessary in order to complete the requirements of the subject (traditional must know)

7. NON – CORE

A competency that is optional in order to complete the requirements of the subject (traditional nice (good) to know/ desirable to know)

SUGGESTED GUIDELINES FOR THE TEACHING AND LEARNING METHODS

LECTURE: Suggested topics for didactic and interactive lectures have been included along with specific learning objectives linked to each competency. Lectures should cover the core competencies with appropriate pictures, charts, or diagrams.

SMALL GROUP DISCUSSION: The topics for small group discussion that have been suggested, these topics included are those where more intensive and interactive learning sessions are required.

SELF DIRECTED LEARNING: Non-core competencies are suggested to be taken as topics for self-directed learning. At the end of the session, the teacher moderates the discussion and the learning is recorded in the logbook.

PRACTICAL DEMONSTRATION

Practical classes will include demonstration and discussion on topics of public health importance. All sessions will have specific learning objectives which are linked to the relevant competencies and are assessed as described in the assessment module.

All sessions will be done with the faculty as facilitator.

The students will be encouraged to observe the demonstrations and perform the requisite skills either independently or with assistance as required. Emphasis will be on acquiring relevant skills at the field level and clinically. Thus, case-based learning and discussions will be encouraged.

FIELD VISIT

Any visit to an organization of public health importance to observe its functioning. These may include visit to PHC, Anganwadi, DOTS Centre, Hospital Waste Management Facility, Water Treatment Plant, ART / ICTC Centre. It may also include visits to community for family study / clinic social case discussion.

Competencies, Specific learning Objectives, Teaching learning and Assessment methods

| Number | COMPETENCY The student should be able to | Domain K/S/A/C | Level K/KH/ SH/P | Core Y/N | Suggested Teaching learning method | Teaching hours |
|---|--|-------------------|------------------------|-------------|---------------------------------------|----------------|
| Topic: Principles of health promotion and education Number of competencies: (3) | | | | | | |
| CM4.1 | Describe various methods of health education with their advantages and limitations | K | KH | Y | SGL | 2 Hours |
| CM4.2 | Describe the methods of organizing health promotion and education and counselling activities at individual family and community settings | K | KH | Y | SDL | 2 Hours |
| CM4.3 | Demonstrate and describe the steps in evaluation of health promotion and education program | S | SH | Y | SGL | 2 Hours |
| Topic: Basic statistics and its applications Number of competencies: (04) | | | | | | |
| CM6.1 | Formulate a research question for a study | K | KH | Y | SGL | 2 Hours |
| CM6.2 | Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data | S | SH | Y | SGL & SDL | 3 Hours(2+1) |
| CM6.3 | Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs | S | SH | Y | Lecture | 2 Hours |

| | | | | | | |
|-------|--|---|----|---|---------|---------|
| CM6.4 | Enumerate, discuss and demonstrate Common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion | S | SH | Y | Lecture | 8 Hours |
|-------|--|---|----|---|---------|---------|

Topic: Epidemiology of communicable and non- communicable diseases

Number of competencies:(7)

| | | | | | | |
|-------|---|---|----|---|---------------|----------------|
| CM8.1 | Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases | K | KH | Y | Lecture & SDL | 18 Hours(15+3) |
| CM8.2 | Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for Non Communicable diseases (diabetes, Hypertension, Stroke, obesity and cancer etc.) | K | KH | Y | Lecture | 6 Hours |
| CM8.3 | Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case | K | KH | Y | Lecture | 10 Hours |
| CM8.4 | Describe the principles and enumerate the measures to control a disease epidemic | K | KH | Y | SGL | 2 Hours |
| CM8.5 | Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease | K | KH | Y | SGL | 2 Hours |
| CM8.6 | Educate and train health workers in disease surveillance, control & treatment and health education | S | SH | Y | SGL | 2 Hours |
| CM8.7 | Describe the principles of management of information systems | K | KH | Y | SGL | 2 Hours |

| Topic: Demography and vital statistics | | Number of competencies: (07) | | | | |
|--|--|------------------------------|----|---|---------|---------|
| CM9.1 | Define and describe the principles of Demography, Demographic cycle, Vital statistics | K | KH | Y | SGL | 2 Hours |
| CM9.2 | Define, calculate and interpret demographic indices including birth rate, death rate, fertility rates | S | SH | Y | SGL | 2 Hours |
| CM9.3 | Enumerate and describe the causes of declining sex ratio and its social and health implications | K | KH | Y | SGL | 2 Hours |
| CM9.4 | Enumerate and describe the causes and consequences of population explosion and population dynamics of India. | K | KH | Y | Lecture | 2 Hours |
| CM9.5 | Describe the methods of population control | K | KH | Y | SGL | 2 Hours |
| CM9.6 | Describe the National Population Policy | K | KH | Y | SGL | 2 Hours |
| CM9.7 | Enumerate the sources of vital statistics including census, SRS, NFHS, NSSO etc | K | KH | Y | SGL | 2 Hours |

| Topic: Reproductive maternal and child health | | Number of competencies:(09) | | | | |
|--|---|------------------------------------|----|---|---------------|--------------|
| CM10.1 | Describe the current status of Reproductive, maternal, newborn and Child Health | K | KH | Y | SGL | 2 Hours |
| CM10.2 | Enumerate and describe the methods of screening high risk groups and common health problems | K | KH | Y | SGL | 2 Hours |
| CM10.3 | Describe local customs and practices during pregnancy, childbirth, lactation and child feeding practices | K | KH | Y | SGL | 2 Hours |
| CM10.4 | Describe the reproductive, maternal, newborn & child health (RMCH); child survival and safe motherhood interventions | K | KH | Y | SGL | 2 Hours |
| CM10.5 | Describe Universal Immunization Program; Integrated Management of Neonatal and Childhood Illness (IMNCI) and other existing Programs. | K | KH | Y | SGL & Lecture | 4 Hours(2+2) |
| CM10.6 | Enumerate and describe various family planning methods, their advantages and shortcomings | K | KH | Y | SDL | 3 Hours |
| CM10.7 | Enumerate and describe the basis and principles of the Family Welfare Program including the organization, technical and operational aspects | K | KH | Y | SGL | 2 Hours |
| CM10.8 | Describe the physiology, clinical management and principles of adolescent health including ARSH | K | KH | Y | SGL & SDL | 2 Hours(1+1) |
| CM10.9 | Describe and discuss gender issues and women empowerment | K | KH | Y | SGL | 2 Hours |

| Topic: Geriatric services | | Number of competencies: (04) | | | | |
|----------------------------------|---|-------------------------------------|----|---|---------|--------|
| CM12.1 | Define and describe the concept of Geriatric services | K | KH | Y | SGL | 1 Hour |
| CM12.2 | Describe health problems of aged population | K | KH | Y | SDL | 1 Hour |
| CM12.3 | Describe the prevention of health problems of aged population | K | KH | Y | SDL | 1 Hour |
| CM12.4 | Describe National program for elderly | K | KH | Y | Lecture | 1 Hour |

| Topic: Disaster Management | | Number of competencies: (04) | | | | |
|-----------------------------------|--|-------------------------------------|----|---|---------|--------|
| CM13.1 | Define and describe the concept of Disaster management | K | KH | Y | Lecture | 1 Hour |
| CM13.2 | Describe disaster management cycle | K | KH | Y | SDL | 1 Hour |
| CM13.3 | Describe man made disasters in the world and in India | K | KH | Y | SDL | 1 Hour |
| CM13.4 | Describe the details of the National Disaster management Authority | K | KH | Y | Lecture | 1 Hour |

| Topic: Hospital waste management | | Number of competencies: (03) | | | | |
|---|---|-------------------------------------|----|---|---------|--------|
| CM14.1 | Define and classify hospital waste | K | KH | Y | Lecture | 1 Hour |
| CM14.2 | Describe various methods of treatment of hospital waste | K | KH | Y | SDL | 1 Hour |
| CM14.3 | Describe laws related to hospital waste management | K | KH | Y | Lecture | 1 Hour |

| | | | | | | |
|--|---|-------------------------------------|----|---|---------|---------|
| Topic: Mental Health | | Number of competencies: (03) | | | | |
| CM15.1 | Define and describe the concept of mental Health | K | KH | Y | SGL | 2 Hours |
| CM15.2 | Describe warning signals of mental health disorder | K | KH | Y | Lecture | 1 Hour |
| CM15.3 | Describe National Mental Health program | K | KH | Y | SGL | 2 Hours |
| Topic: Health planning and management | | Number of competencies: (04) | | | | |
| CM16.1 | Define and describe the concept of Health planning | K | KH | Y | SDL | 1 Hour |
| CM16.2 | Describe planning cycle | K | KH | Y | Lecture | 1 Hour |
| CM16.3 | Describe Health management techniques | K | KH | Y | SGL | 2 Hours |
| CM16.4 | Describe health planning in India and National policies related to health and health planning | K | KH | Y | SGL | 2 Hours |
| Topic: Health care of the communitiy | | Number of competencies:(05) | | | | |
| CM17.1 | Define and describe the concept of health care to community | K | KH | Y | SGL | 2 Hours |
| CM17.2 | Describe community diagnosis | K | KH | Y | Lecture | 1 Hour |
| CM17.3 | Describe primary health care, its components and principles | K | KH | Y | SDL | 1 Hour |
| CM17.4 | Describe National policies related to health and health planning and millennium development goals | K | KH | Y | SGL | 2 Hours |
| CM17.5 | Describe health care delivery in India | K | KH | Y | SGL | 2 Hours |
| Topic: International Health | | Number of competencies: (2) | | | | |

| | | | | | | |
|---|---|-----------------------|------------------------|-------------|---------|---------|
| CM18.1 | Define and describe the concept of International health | K | KH | Y | SGL | 2 Hours |
| CM18.2 | Describe roles of various international health agencies | K | KH | Y | SGL | 2 Hours |
| Number | COMPETENCY The student should be able to | Domain K/S/A/ C | Level K/KH/ SH/P | Core Y/N | SGL | 2 Hours |
| Topic: Essential Medicine Number of competencies: (3) | | | | | | |
| CM19.1 | Define and describe the concept of Essential Medicine List (EML) | K | KH | Y | Lecture | 1 Hour |
| CM19.2 | Describe roles of essential medicine in primary health care | K | KH | Y | SDL | 1 Hour |
| CM19.3 | Describe counterfeit medicine and its prevention | K | KH | Y | Lecture | 1 Hour |
| Topic: Recent advances in Community Medicine Number of competencies: (04) | | | | | | |
| CM20.1 | List important public health events of last five years | K | KH | Y | SGL | 2 Hours |
| CM20.2 | Describe various issues during outbreaks and their prevention | K | KH | Y | SGL | 2 Hours |
| CM 20.3 | Describe any event important to Health of the Community | K | KH | Y | SGL | 2 Hours |
| CM 20.4 | Demonstrate awareness about laws pertaining to practice of medicine such as Clinical establishment Act and Human Organ Transplantation Act and its implications | K | KH | Y | SDL | 2 Hours |

Distribution of Teaching Hours for Final MBBS Part I

| Subject | Lectures | SGL | Clinical postings | SDL | Total |
|---------------------------------------|-----------------|------------|--------------------------|------------|--------------|
| Community Medicine (Theory) | 55 | 70 | - | 20 | 145 |
| Community Medicine (Clinical posting) | - | - | 72 (4 weeks) | - | 72 |
| FAP | - | 21 | | 10 | 31 |

III MBBS Schedule

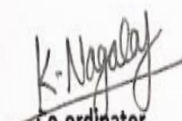
SVIMS-SRI PADMAVATHI MEDICAL COLLEGE FOR WOMEN, TIRUPATI

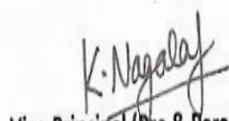
3rd MBBS Part-I Theory Time Table for 2021-22 Batch (w.e.f. 26.02.2024)

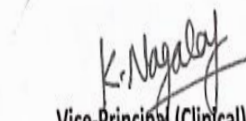
| Days time | <u>8.00-9.00 am</u> | <u>9.00-12.00 pm</u> | <u>12.00-1.00 pm</u> | <u>1.00-2.00 pm</u> | <u>2.00-3.00 pm</u> | <u>3.00-4.00 pm</u> |
|--------------|---------------------|----------------------|----------------------|--------------------------|---------------------|---------------------|
| Mon | General Medicine | Clinical Postings | Lunch | Community Medicine | Community Medicine | ENT |
| Tues | General Surgery | | | Forensic Medicine | Community Medicine | Community Medicine |
| Wed | OBG | | | Ophthalmology | ENT | Paediatrics |
| Thurs | General Medicine | | | Paediatrics | Forensic Medicine | Forensic Medicine |
| Fri | General Surgery | | | Forensic Medicine | Ophthalmology | Orthopaedics |
| Sat | OBG | | | AETCOM / Pandemic Module | | |

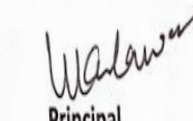
*Every Saturday - 4.00 pm to 5.00 pm - PD / Extra Curricular Activities.

*Every Wednesday - 4.00 pm to 5.00 pm - YOGA


Co-ordinator
3rd MBBS Part-I


Vice-Principal (Pre & Para Clinical)
SVIMS-SPMCW


Vice-Principal (Clinical)
SVIMS-SPMCW


Principal
SVIMS - SPMCW

SVIMS- SRI PADMAVATHI MEDICAL COLLEGE FOR WOMEN, TIRUPATI
3rd MBBS Part-I Clinical Postings for 2021-22 batch (26.02.2024 to 22.10.2024).

| Dates | Gen. Medicine | Gen. Surgery | OBG | Comm. Medicine | Paediatrics | Orthopaedics | ENT | Ophthalmology | Psychiatry | Dermatology | General Medicine |
|--------------------------|---------------|--------------|-----|----------------|-------------|--------------|-----|---------------|------------|-------------|------------------|
| 26.02.2024 to 10.03.2024 | AB | CD | EF | GH | IJ | K | L | M | N | O | P |
| 11.03.2024 to 24.03.2024 | CD | EF | GH | IJ | KL | L | K | N | M | P | O |
| 25.03.2024 to 07.04.2024 | CD | EF | GH | IJ | KL | M | N | O | P | A | B |
| 08.04.2024 to 21.04.2024 | CD | EF | GH | IJ | KL | N | M | P | O | B | A |
| 22.04.2024 to 05.05.2024 | EF | GH | IJ | KL | MN | O | P | A | B | C | D |
| 06.05.2024 to 15.05.2024 | EF | GH | IJ | KL | MN | P | O | B | A | D | C |
| 01.06.2024 to 04.06.2024 | GH | IJ | KL | MN | OP | A | B | C | D | E | F |
| 05.06.2024 to 18.06.2024 | GH | IJ | KL | MN | OP | B | A | D | C | F | E |
| 19.06.2024 to 02.07.2024 | IJ | KL | MN | OP | AB | C | D | E | F | G | H |
| 03.07.2024 to 16.07.2024 | IJ | KL | MN | OP | AB | D | C | F | E | H | G |
| 17.07.2024 to 30.07.2024 | KL | MN | OP | AB | CD | E | F | G | H | I | J |
| 31.07.2024 to 13.08.2024 | KL | MN | OP | AB | CD | F | E | H | G | I | J |
| 14.08.2024 to 27.08.2024 | MN | OP | AB | CD | EF | G | H | I | J | K | L |
| 28.08.2024 to 10.09.2024 | MN | OP | AB | CD | EF | H | G | I | J | L | K |
| 11.09.2024 to 24.09.2024 | OP | AB | CD | EF | GH | I | J | K | L | M | N |
| 25.09.2024 to 08.10.2024 | OP | AB | CD | EF | GH | J | I | L | K | N | M |
| 09.10.2024 to 22.10.2024 | OP | AB | CD | EF | GH | J | I | L | K | N | M |

A-1-10 B-11-21 C-22-32 D-33-43 E-44-54 F-55-65 G-66-76 H-77-87 I-88-98 J-99-109 K-110-120 L-121-131 M-132-143
N-144-155 O-156-167 P-168-179

K. Nagalakshmi
Co-ordinator
3rd MBBS Part-I

K. Nagalakshmi
Vice-Principal (Pre & Para Clinical)
SVIMS-SPMCW

K. Nagalakshmi
Vice-Principal (Clinical)
SVIMS-SPMCW

Madhusudan
Principal
SVIMS - SPMCW

SVIMS-SRI PADMAVATHI MEDICAL COLLEGE FOR WOMEN, TIRUPATI

| DEPARTMENT OF COMMUNITY MEDICINE | | | | |
|---|------------|-------------|--|----------------|
| III MBBS (PART I) THEORY TIME TABLE - 01.04.2024 to 30.04.2024 | | | | |
| DATE | DAY | TIME | TOPIC (C.M No:) | FACULTY |
| | | | CM 6.1.1 What is Research Question and how do you approach to formulate a research question | |
| | | | CM 6.2.1 What are the Principles of Statistical data CM6.2.2 Methods of collection, classification analysis interpretation and presentation of statistical data | |
| | | | CM 6.3.1 Describe , discuss and demonstrate the application of Elementary statistical methods | |
| | | | CM 6.3.2 Enlist tests of Significance and Discuss how they are used in various study designs | |
| | | | CM6.4.1 What is sampling and Discuss different types of sampling technique? | |
| | | | C.M 6.4.2 what is frequency distribution and discuss about it with the help of histogram? | |
| | | | C.M 6.4.3 Describe measures of central tendency and measures of dispersion? | |
| | | | C.M 9.1.1 Definition & Demographic cycle C.M 9.1.2 Vital statistics: .World & India demographic trends | |
| | | | C.M 9.3.1 to Enumerate and describe the causes of declining sex ratio C.M 9.3.2 describe the declining sex ratio and its social and health implications | |
| | | | C.M 9.4.1 Enumerate and describe the causes of population explosion and population dynamics of India C.M 9.4.2 enumerate and describe the consequences of population explosion and population dynamics of India | |
| | | | C.M 9.6.1 Describe the National Population Policy | |
| | | | C.M 9.7.1 Census, Registration of vital events, SRS, Notification of Disease C.M 9.7.2 Hospital records, Disease registers, Record linkage | |
| | | | C.M 9.7.3 Epidemiological surveillance, Environmental health data, Health manpower statistics, Population surveys | |
| | | | C.M 10.2.2 Describe the methods of screening NCDs & Cancers | |
| | | | C.M 10.5.1 Describe the various components of universal immunization programme, goals & objectives, target groups and recently introduced the vaccines in the programme. | |
| | | | C.M 10.5.2 Describe the essential components of integrated management of neonatal and childhood illnesses (IMNCI), goals, training & innovations and color-coded treatment strategy. | |
| | | | Class Test | |
| | | | Mentoring | |

| DEPARTMENT OF COMMUNITY MEDICINE | | | | |
|--|-----------|---------------------|-------------------------|---------|
| Clinical Time Table for III Year Part I MBBS (2021-22) 05-06-2024 to 02-07-2024 –June-July 2024 Schedule | | | | |
| DATE | DAY | TIME | TOPIC | FACULTY |
| 05.06.2024 | Wednesday | 9:00 AM TO 12:00 PM | CSC-LEPROSY | |
| 06.06.2024 | Thursday | 9:00 AM TO 12:00 PM | CSC-HYPERTENSION | |
| 07.06.2024 | Friday | 9:00 AM TO 12:00 PM | CSC-DIABETES MELLITUS | |
| 08.06.2024 | Saturday | 9:00 AM TO 12:00 PM | CSC- ANC | |
| 10.06.2024 | Monday | 9:00 AM TO 12:00 PM | CSC- PNC | |
| 11.06.2024 | Tuesday | 9:00 AM TO 12:00 PM | FORMATIVE ASSESSMENT | |
| 12.06.2024 | Wednesday | 9:00 AM TO 12:00 PM | FEED BACK | |
| 13.06.2024 | Thursday | 9:00 AM TO 12:00 PM | CSC-LEPROSY | |
| 14.06.2024 | Friday | 9:00 AM TO 12:00 PM | CSC-HYPERTENSION | |
| 15.06.2024 | Saturday | 9:00 AM TO 12:00 PM | CSC-DIABETES MELLITUS | |
| 18.06.2024 | Tuesday | 9:00 AM TO 12:00 PM | CSC- ANC | |
| 19.06.2024 | Wednesday | 9:00 AM TO 12:00 PM | CSC- PNC | |
| 20.06.2024 | Thursday | 9:00 AM TO 12:00 PM | CSC-LEPROSY | |
| 21.06.2024 | Friday | 9:00 AM TO 12:00 PM | CSC-HYPERTENSION | |
| 22.06.2024 | Saturday | 9:00 AM TO 12:00 PM | CSC-DIABETES MELLITUS | |
| 24.06.2024 | Monday | 9:00 AM TO 12:00 PM | CSC-TB | |
| 25.06.2024 | Tuesday | 9:00 AM TO 12:00 PM | CSC-UNDER 5 ARI | |
| 26.06.2024 | Wednesday | 9:00 AM TO 12:00 PM | CSC- UNDER5 DIARRHOEA | |
| 27.06.2024 | Thursday | 9:00 AM TO 12:00 PM | CSC-TB | |
| 28.06.2024 | Friday | 9:00 AM TO 12:00 PM | CSC-UNDER 5 ARI | |
| 29.06.2024 | Saturday | 9:00 AM TO 12:00 PM | CSC- UNDER5 DIARRHOEA | |
| 01.07.2024 | Monday | 9:00 AM TO 12:00 PM | CSC-TB | |
| 02.07.2024 | Tuesday | 9:00 AM TO 12:00 PM | END POSTING EXAMINATION | |

AETCOM MODULE

AETCOM Competencies for Third Year (Part I)

| Subject | Competency Number | Competency |
|--------------------------------|-------------------|--|
| Ophthalmology | 3.1 | Demonstrate ability to communicate to patients in a patient, respectful, nonthreatening, non-judgmental and empathetic manner |
| | 3.2 | Demonstrate an understanding of the implications and the appropriate procedure and response to be followed in the event of medical error |
| ENT | 3.3 A | Demonstrate ability to communicate to patients in a patient, respectful, nonthreatening, non-judgmental and empathetic manner |
| | 3.3 B | Identify, discuss and defend, medico-legal, socio-cultural and ethical issues as they pertain to consent for surgical procedures |
| Forensic Medicine & Toxicology | 3.3 C | Administer informed consent and appropriately address patient queries to a patient undergoing a surgical procedure in a simulated environment |
| | 3.4 | Identify, discuss and defend medico-legal, socio-cultural and ethical issues as it pertains to confidentiality in patient care |
| Community Medicine | 3.5 A | Identify, discuss and defend medico-legal, socio-cultural, professional and ethical issues as it pertains to the physician - patient relationship (including fiduciary duty) |
| | 3.5 B | Identify and discuss physician's role and responsibility to society and the community that she/ he serves |

PANDEMIC MODULE

Longitudinal Module on Management of Pandemics for MBBS course

| Period | Module | Broad areas | No. of hours | Major department(s) to coordinate |
|-------------------|--------|---|--------------|---|
| Foundation Course | F.1 | History of Outbreaks, Epidemics & Pandemics | 2 | Pre-Clinical |
| Phase I | 1.1 | Infection Control: Part - I Infection Control Practices – Hand washing, Decontamination Use of PPEs | 4 | Microbiology |
| Phase II | 2.1 | Infection Control: Part II Air borne precautions Contact Precautions Infection Control Committee | 4 | Microbiology |
| | 2.2 | Emerging and Re-emerging infections, early identification and control of new infections | 6 | Community Medicine |
| | 2.3 | Sample Collection, Microbial diagnosis, Serologic tests and their performance parameters | 6 | Microbiology |
| | 2.4 | Vaccination strategies including vaccine development & Implementation | 6 | Community Medicine, Biochemistry |
| | 2.5 | Therapeutic strategies including new drug development | 6 | Pharmacology, General Medicine |
| Phase III Part 1 | 3.1 | Outbreak Management including Quarantine, Isolation, Contact Tracing | 5 | Community Medicine |
| | 3.2 | Interdisciplinary Collaboration, Principles of Public Health Administration, Health Economics, International Health | 5 | |
| | 3.3 | Operational Research, Field work, Surveillance | 8 | |
| Electives | | Epidemiology and research Components | | Community Medicine |
| Phase III Part 2 | 4.1 | Care of patients during Pandemics | 6 | Clinical departments (General Medicine, Pulmonary Medicine, Anaesthesiology as Integrated sessions) |
| | 4.2 | Emergency Procedures | 8 | |
| | 4.3 | Death related management | 2 | |
| | 4.4 | Communications and media management | 4 | |
| | 4.5 | Intensive Care Management during Pandemics | 4 | |
| | 4.6 | Palliative Care during Pandemics | 4 | |
| Total | | | 80 hours | |

INTEGRATED TEACHING SCHEDULE

| S.No: | Date | Topics | Department | Time |
|---------------------------|------------|--|-----------------------------|-------|
| Community Medicine | | | | |
| 1. | 04.05.2024 | Enumerate the contraceptive methods for male and female. Discuss their advantages & disadvantages. | Obstetrics & Gynaecology | 50min |
| | | Discuss Family Planning under following heads: a) Definition, scope and health aspects of family planning. b) Small family norm, eligible couples, Target couples, Couple protection rate. c) National Population Policy 2000 | Community Medicine | 50min |
| | | | | |
| 2. | 11.05.2024 | Describe the concept of mental health and warning signals Mental Health disorders | Psychiatry | 50min |
| | | Describe Mental Health Programme | Community Medicine | 50min |
| 3. | 01.06.2024 | Describe the current status of Reproductive, Maternal and Child Health in India. | Community Medicine | 50min |
| | | Describe methods of screening of high risk mothers | Obstetrics & Gynaecology | 50min |
| | | Describe methods of screening of children | Paediatrics | 50min |
| 4. | 08.06.2024 | Classification, properties and modes of action of Insecticides and Rodenticides. | Pharmacology | 50min |
| | | Discuss mode of application and public health importance of Insecticides and Rodenticides. | Community Medicine | 50min |
| 5. | 15.06.2024 | Enumerate and Describe health problems of the geriatric population. | General Medicine | 50min |
| | | Ways of prevention of health problems of geriatric population and Describe National Programme for Elderly. | Community Medicine | 50min |

FAMILY ADOPTION PROGRAMME

Family Adoption Programme Survey Camp Guidelines

1. Institutes/colleges are requested to conduct at least one health camp under family adoption programme survey (for MBBS batch admission year 2022:23).
2. A committee under the chairmanship of Head of the institute/college is to be formed for conducting the health camps under family adoption programme survey.
3. The department of community medicine will be the nodal department for the above activity.
4. Resources required for the camp (s) to be mobilized at the level of college/institute in coordination with Community Medicine department.
5. Faculty members and Resident Doctors from other departments can also be involved in the conduction of the health camp(s).
6. Data of the health camp (s) to be maintained by the department of community medicine.
7. Institutes/Colleges to share the de-identified data of all the families adopted during family adoption programme (admission year 2022) with UGMEB of NMC in the prescribed formats before 7th August, 2024.
8. Health awareness via health talks, role-plays, rallies etc. on relevant health topics as identified by the community medicine department may be done.
9. Cleanliness, sanitation and/or plantation drives can also be planned during the health camps with involvement of local community volunteers.
10. Queries may be raised to the following e mail ID: fap.ugr.neb@nmc.org.in

| | | | | | |
|------------------------------|--|--|---|--|------|
| 3 rd Professional | <ul style="list-style-type: none"> Take history and conduct clinical examination of all family members | By the end of this visit, students should be able to update the medical history of family members and their vitals and anthropometry | Family survey, Community clinics | Community case presentation, OSPE, logbook, journal of visit | 3hrs |
| | <ul style="list-style-type: none"> Organize health check-up and coordinate treatment of adopted family under overall guidance of mentor | By the end of this visit, students should be able to report the details of clinical examination like Hb %, blood group, urine | Community clinics, Multispecialty camps | Community case presentation, OSPE, logbook, journal of visit | 3hrs |

| | | | | | |
|--|--|---|--|--|---------------------------|
| | | routine and blood sugar along with treatment history of allocated family members | | | |
| | <ul style="list-style-type: none"> Maintain communication & follow up of remedial measures | By the end of this visit, students should be able to provide details of communication maintained with family members for follow-up of treatment, and suggested remedial measures along with details of vaccination drive | Reporting of follow up visits, PRA techniques (transact walk, group discussion) Community clinics, | Community case presentation, OSPE, logbook based certification of competency, journal of visit | 3hrs |
| | <ul style="list-style-type: none"> Take part in environment protection and sustenance activities. Council the family members of allotted families and analyze the health trajectory of adopted family under overall guidance of mentor | <p>By the end of this visit, students should be able to report the activities undertaken for environment protection and sustenance like study of environment of families, tree plantation/ herbal plantation activities conducted in the village,</p> <p>By the end of this visit, students should be able to analyze and report the health trajectory of adopted family along with remedial measures adopted at individual, family and community level</p> | Participation in and Process documentation of activities (NSS activities) along with reporting of photographic evidences, Small group discussion (report of the health trajectory of adopted family) | logbook based certification of competency, journal of visit | 3hrs |
| | | | | | (total 21 hrs, 7 visits) |

| DEPARTMENT OF COMMUNITY MEDICINE | | | | |
|---|-----------|---------------------|---------------------------|---------|
| Clinical Time Table for III Year Part I MBBS (2021-22) 22-04-2024 to 04-06-2024 –April-May-June 2024 Schedule | | | | |
| DATE | DAY | TIME | TOPIC | FACULTY |
| 08.05.2024 | Wednesday | 9:00 AM TO 12:00 PM | FAMILY ADOPTION PROGRAMME | |
| 09.05.2024 | Thursday | 9:00 AM TO 12:00 PM | FAMILY ADOPTION PROGRAMME | |
| 10.05.2024 | Friday | 9:00 AM TO 12:00 PM | FAMILY ADOPTION PROGRAMME | |
| 11.05.2024 | Saturday | 9:00 AM TO 12:00 PM | FAMILY ADOPTION PROGRAMME | |
| 13.05.2024 | Monday | 9:00 AM TO 12:00 PM | FAMILY ADOPTION PROGRAMME | |
| 14.05.2024 | Tuesday | 9:00 AM TO 12:00 PM | FAMILY ADOPTION PROGRAMME | |
| 15.05.2024 | Wednesday | 9:00 AM TO 12:00 PM | FAMILY ADOPTION PROGRAMME | |

SIGNATURE OF PROFESSOR & HEAD

Eligibility to appear for Community Medicine University examinations

The performance in essential components of training are to be assessed, based on:

Attendance:

- In Community Medicine - the learner must have 75% attendance in theory and 80% in practical in each phase (3 phases).
- There shall be minimum of 80% attendance in family visits under Family adoption programme. Each student shall adopt minimum 3 families and preferably five families. The details shall be as per Family Adoption Program guidelines.

Table: Examination components, Distribution of Marks

| THEORY | | COMMUNITY MEDICINE | |
|---|-------|--|-------|
| Written Paper | | | |
| No. of Papers & Maximum Marks for each paper. | | 2×100=200 | |
| Total theory | | 200 | |
| PRACTICAL | | | |
| 1. Practical exam | | 80 | |
| 2. Viva-voce | | 20 | |
| Total practical | | 100 | |
| Internal assessment* | | | |
| Theory (maximum marks) | Marks | Practical | Marks |
| Theory paper | 40 | Practical exam (30 marks) and viva- voce(10 marks) | 40 |
| Formative assessment | | Formative assessment | |
| (Part completion tests/ | 5 | Record | 5 |
| Attendance | 5 | Log Book | 5 |
| Total | 50 | | 50 |

Grading for attendance - 95-100%-5; 90-94%-4; 85-89%-3; 80-84%-2; 83-75%-1

Proposal

*** Internal assessment marks will reflect under separate head in the marks card of the university examination.**

Type number of questions and distribution of marks for written paper

| TYPES OF QUESTION | NUMBER OF QUESTIONS | MARKS FOR EACH QUESTION |
|--------------------------|----------------------------|--------------------------------|
| Long essay | 2 | 15 |
| Short essay | 10 | 5 |
| MCQs | 20 | 1 |

Distribution of Marks for Practical Examinations:

Practical examination will be conducted under heads of Practical examination and Viva Voce.

| | | |
|----|-----------------------------------|------------------|
| 1. | Practical Examination (80 marks) | |
| | Case Presentation | 25 |
| | Exercise | 30 |
| | OSCE, OSPE, Spotters | 25 |
| 2 | Viva –Voce Examination | 20 |
| | TOTAL MARKS | 100 MARKS |

Department of Community Medicine

Faculty : MBBS Year/Phase 3, part 1

Date : dd/mm/yyyy

| | | | Formative Assessment | | | Continuous Internal Assessment (Practical) | | | | | | |
|-------|----------|-----------------|--|--|-------------------|---|---|---------------------|----------------------------------|------------------------|-------|--|
| S.No. | Roll No. | Name of Student | 1st PCT Practical/First Ward Leaving Examination | 2nd PCT Practical /Second Ward Leaving Examination | Prelims Practical | Log book (150) | | | Journal (Record book/ Portfolio) | Attendance (Practical) | Total | Percentage Practical (Minimum cut off 40%) |
| | | | | | | Certifiable skill based competencies (Through OSPE/OSCE/Spots/Exercise/Other) | Family Adoption Programme competencies in Comm. Med | AETCOM competencies | | | | |
| | | | 100 | 100 | 100 | 60 | 30 | 30 | 40 | 10 | 500 | % |
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | |

S/d

Professor & Head

Department of _____

* Medical College

University

State/ U.T.

DEPARTMENT OF Community Medicine

Faculty : MBBS Year/Phase 3, part 1

| | | | Formative Assessment_Theory | | | Continuous Internal assessment_Theory | | | | | | | | Cumulative percent of Theory & Practical |
|-------|----------|-----------------|-----------------------------|----------------|-------------------------------|---------------------------------------|---------|-----------------------------|--------------|---------------------|-------------------|-------|---|--|
| S.No. | Roll No. | Name of Student | 1st PCT Theory | 2nd PCT Theory | Prelims Theory (Paper I & II) | Home Assignment | Seminar | Continuous Class Test (LMS) | Museum study | Library assignments | Attendance Theory | Total | Percentage Theory (Minimum cut off 40%) | Theory+ Practical = 500+500= 1000 (Minimum cut off 50%) Note: Minimum 40% separately for theory and practical and 50% cumulative in IA for eligibility in Summative examination |
| | | | 100 | 100 | 200 | 15 | 15 | 30 | 15 | 15 | 10 | 500 | % | |
| 1 | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | |

COMMUNITY MEDICINE

PAPER – I

- 1. History of Public Health in India**
- 2. Concept of Health and disease**
- 3. Demography and family planning**
- 4. Biostatistics**
- 5. Environment and Health**
- 6. General Epidemiology**
- 7. Screening for disease**
- 8. Social sciences**
- 9. Nutrition**
- 10. Mental Health**
- 11. Genetics and Health**
- 12. Hospital acquired infections**
- 13. Hospital waste management**

Paper – II

- 1. Epidemiology of Communicable disease**
- 2. Emerging and Re-emerging infectious diseases.**
- 3. Epidemiology of Non-Communicable diseases and conditions.**
- 4. Occupational diseases**
- 5. Maternal and Child health & Family Welfare**
- 6. Geriatric Health**

- 7. National Health Programmes**
- 8. Health care delivery System**
- 9. Health education & Communication**
- 10. Health Information system**
- 11. Health Planning and management**
- 12. International Health.**
- 13. Disaster Management.**

EVALUATION METHODOLOGY

Summative Assessment - Assessment will be conducted at the end of instruction to check how much the student has learnt.

Formative Assessment - Assessment will be conducted during the instruction with primary purpose of providing feedback for improved learning.

Internal Assessment - Range of assessments conducted by the teachers teaching a particular subject with the purpose of knowing what is learnt. Internal assessment can have both formative and summative functions.

Theory IA includes: Written test includes essay questions, short notes and MCQs.

Practical IA includes: Practical tests, Objective Structured Practical Examination (OSPE), Directly Observed Procedural Skills (DOPS), records maintenance and attitudinal assessment.

Assessment of Log-book- Log book should record all activities like seminar, symposia, quizzes and other academic activities. It should be assessed regularly and submitted to the department. Up to ten (10) per cent IA Practical marks should be for Log book assessment.

Assessment of Practical Record book- Practical book should record all skills and other practical exercises done during the academic programme. It will be assessed regularly and submitted to the department.

Assessment for AETCOM will include: - Written tests comprising of short notes and creative writing experiences only in internal assessment.

COMMUNITY MEDICINE
SYLLABUS AND TOPIC WISE MARKS DISTRIBUTION

PAPER-I

| S.No | Topic | Long Essay | Short Notes | MCQs | Maximum Marks | Minimum Marks |
|------|--|------------|-------------|------|---------------|---------------|
| 1 | Concept of Health and disease | ✓ | ✓ | ✓ | 15 | 3 |
| 2 | Relationship of social and behavioural to health and disease | | ✓ | ✓ | 5 | 2 |
| 3 | Environment Health Problems | ✓ | ✓ | ✓ | 15 | 3 |
| 4 | Nutrition | ✓ | ✓ | ✓ | 20 | 3 |
| 5 | Basic statistics and its applications | | ✓ | ✓ | 5 | 3 |
| 6 | Epidemiology | ✓ | ✓ | ✓ | 20 | 3 |
| 7 | Demography and vital statistics | ✓ | ✓ | ✓ | 15 | 3 |
| 8 | Mental Health | | ✓ | ✓ | 5 | 3 |
| 9 | Hospital waste management | | ✓ | ✓ | 10 | 3 |
| 10 | AETCOM | | ✓ | | 5 | 5 |

PAPER-II

| S.No | Topic | Long Essay | Short Notes | MCQs | Maximum Marks | Minimum Marks |
|------|--|------------|-------------|------|---------------|---------------|
| 1 | Epidemiology of Communicable and Non-Communicable diseases | ✓ | ✓ | ✓ | 25 | 4 |
| 2 | Reproductive Maternal and Child health | ✓ | ✓ | ✓ | 15 | 3 |
| 3 | Occupational Health | ✓ | ✓ | ✓ | 15 | 2 |
| 4 | Geriatric services | | ✓ | ✓ | 5 | 1 |
| 5 | Disaster Management | ✓ | ✓ | ✓ | 15 | 5 |
| 6 | Principles of Health promotion and education | ✓ | ✓ | ✓ | 15 | 5 |
| 7 | Health Planning and management | ✓ | ✓ | ✓ | 15 | 2 |
| 8 | Health care of the community | ✓ | ✓ | ✓ | 20 | 2 |
| 9 | International Health | | ✓ | ✓ | 5 | 1 |
| 10 | Essential Medicine | | ✓ | ✓ | 5 | 1 |
| 11 | Recent advances in Community Medicine | | ✓ | ✓ | 5 | 1 |

SVIMS-Sri Padmavathi Medical College for Women, Tirupati
3rd Year MBBS (Paper-1) Model Question paper
Department of Community Medicine

Maximum marks: 100

Date:

Duration: 3 hours

A. Write Long essay ALL of the following: 1×15=30M

1. Enlist and describe the steps in the investigation of an epidemic of communicable disease. Describe the principles of control measures against communicable disease
(3+7+5=15M)
2. Describe the purification of water under following heads: (10+5=15M)
 - a. Purification of water on a large scale
 - b. House hold purification of water

B. Write short essay for ALL of the following 5×10=50M

3. Describe the characteristics of agent, host and environmental factors in health and disease.
4. Describe health hazards and prevention of air pollution..
5. Discuss different methods of solid waste disposal in the community.
6. Describe the natural history of disease.
7. Enlist and describe the causes of declining sex ratio.
8. Define and classify hospital waste.
9. Describe the warning signals of mental health.
10. Discuss professional and ethical issues pertaining to physician-patient relationship.
11. Describe poverty and social security measures.
12. Describe the application of computers in epidemiology.

C. MCQ's 1×20=20M

Note: Above model question paper is applicable only for the Batch 2021-22.

SVIMS-Sri Padmavathi Medical College for Women, Tirupati
3rd Year MBBS (Paper - 2) Model Question paper
Department of Community Medicine

Maximum marks: 100

Date:

Duration: 3 hours

A. Write Long essay ALL of the following: 1×15=30M

1. Describe the problem of COVID-19 under following heads: **(5+5+5=15M)**

- a. Symptoms and risk factors associated with COVID-19.
- b. Post COVID-19 management protocol.
- c. COVID-19 vaccines.

2. Describe the Indian Public Health Standards for Community Health Centres (CHC's) under following heads: **(5+5+5=15M)**

- a. Enlist the services to be provided by a CHC.
- b. Describe any three services provided by a CHC in detail.
- c. Enlist the manpower for CHC's.

B. Write short essay for ALL of the following 5×10=50M

3. Discuss elements of communication in Medical encounters.
4. Describe counterfeit medicine and its prevention.
5. List important public health events of last five years.
6. Describe the broad responsibilities of World Health Organization.
7. Describe planning cycle.
8. Identify and discuss physician's role and responsibility to the community.
9. Discuss the Group Approach of Health Communication.
10. Benefits and functions of Employees State Insurance Scheme (ESI).
11. 5×5 matrix for high impact RMNCH+A interventions.
12. Describe Man-made disasters in the World and in India.

C. MCQ's 1×20=20M

Note: Above model question paper is applicable only for the Batch 2021-22.

A. Write Long essay ALL of the following:

1×15=30M

1. 2 years old girl was brought to OPD with pitting edema in the B/L lower limbs, diffuse pigmentation (flaky paint dermatitis) over the skin & flag sign of hair. The child is lethargic & his appetite is poor. On physical examination, the liver is enlarged and the abdomen is distended. Serum albumin very low (2 gm/dl). (4+3+3+5)
 - a. What is your diagnosis and justify your diagnosis?
 - b. Write the socioeconomic factors for the given health condition?
 - c. List the complications of the given disease?
 - d. How will you prevent its occurrence in the community?
2. A 30 years old woman has one and half year old son. She has no history of pelvic disease and has normal menstrual period. She wants to follow child spacing for about 3 years: (4+4+4+3)
 - a. What is the ideal contraceptive method for this woman and its types?
 - b. What are the various advantages of this method?
 - c. What are the side effects and complications of this method?
 - d. What are the features of an ideal candidate for this method?

B. Write short essay for ALL of the following

5×10=50M

3. Describe the characteristics of agent, host and environmental factors in health and disease.
4. Describe health hazards and prevention of air pollution..
5. Discuss different methods of solid waste disposal in the community.
6. Describe the natural history of disease.
7. Enlist and describe the causes of declining sex ratio.
8. Define and classify hospital waste.
9. Describe the warning signals of mental health.
10. Discuss professional and ethical issues pertaining to physician-patient relationship.
11. Describe poverty and social security measures.
12. Describe the application of computers in epidemiology.

C. MCQ's

1×20=20M

Note: Above model question paper is applicable from the Batch 2022-23 onwards.

SVIMS-Sri Padmavathi Medical College for Women, Tirupati
3rd Year MBBS (Paper - 2) Model Question paper
Department of Community Medicine

Maximum marks: 100

Date:

Duration: 3 hours

A. Write Long essay ALL of the following:

1×15=30M

1. Babu is an 8 year old boy has been sent back from school by his teacher because he has some asymmetrical hypo pigmented patches on both his cheeks. He has been brought to you for diagnosis and management. On examination the parents say that it has been there for the last 3 months and they are not itchy. You find that there is no anesthesia or hypoesthesia of the patch.
(2+3+5+5)
 - a. What do you think is the likely diagnosis?
 - b. What are the cardinal signs of the disease?
 - c. Write a note on epidemiological determinants of the disease.
 - d. Describe briefly the control measures.
2. A 20 year old Mrs Reena came to the OPD with premature rupture of membranes. On examination her Hb was 8 mg/dl. She delivered a female child of birth weight 1.75 kg by normal vaginal delivery.
 - a. Comment on the birth weight of the child and its various types.
 - b. What are the various risk factors of the condition.
 - c. What are the preventive measures.
 - d. Write a note on kangaroo mother care.

B. Write short essay for ALL of the following

5×10=50M

3. Discuss elements of communication in Medical encounters.
4. Describe counterfeit medicine and its prevention.
5. List important public health events of last five years.
6. Describe the broad responsibilities of World Health Organization.
7. Describe planning cycle.
8. Identify and discuss physician's role and responsibility to the community.
9. Discuss the Group Approach of Health Communication.
10. Benefits and functions of Employees State Insurance Scheme (ESI).
11. 5×5 matrix for high impact RMNCH+A interventions.
12. Describe Man-made disasters in the World and in India.

C. MCQ's

1×20=20M

Note: Above model question paper is applicable from the Batch 2022-23 onwards.

**SVIMS-SPMCW
COMMUNITY MEDICINE**

3rd Year MBBS (Paper-1) , Model MCQ test

Attempt all questions

Time: 20 Minutes

Date:

Marks:20

1. Surveillance is ☐
 - a. Scrutiny of factors
 - b. Treatment of contacts
 - c. Prevention of disease
 - d. Chemoprophylaxis of disease
2. Incidence rate can be calculated from: ☐
 - a. Cohort study
 - b. Case control study
 - c. Cross sectional study
 - d. Descriptive study
3. Disability Limitation is mode of intervention for" ☐
 - a. Primordial Prevention
 - b. Primary Prevention
 - c. Secondary Prevention
 - d. Tertiary Prevention
4. _____ is obtained by joining the midpoints of the histogram blocks ☐
 - a. Histogram
 - b. Line diagram
 - c. Frequency Polygon
 - d. Bar chart
5. In which stage of the demographic cycle does the death rate start declining? ☐
 - a. Stage 2
 - b. Stage 3
 - c. Stage 4
 - d. Stage 1
6. Most reliable evidence of faecal contamination of water is provided by ☐
 - a. Cl.Welchii
 - b. Cl.Perfringens
 - c. St.fecalis
 - d. Coliform Bacteria
7. The minimum recommended dose of "free" residual chlorine in water for routine chlorination (in.mg/ltrs) is: ☐
 - a. 0.5 mg/l for a contact period of 1 hour.
 - b. 0.5 mg/l for a contact period of ½ hour.
 - c. 1.0 mg/l for a contact period of 1 hour.
 - d. 1.0 mg/l for a contact period of ½ hour.
8. Schmutzdecke refers to the following: ☐
 - a. Suspended matter in drinking water.
 - b. Algae in drinking water.
 - c. Alum flocculate on surface of sand bed filter
 - d. Algae, plankton, diatoms and bacteria on surface of sand bed filter
9. In an outbreak of cholera in a village of 2000 population 20 cases have occurred and 5 have died. Case fatality rate is: ☐
 - a. 1%
 - b. 0.25%
 - c. 5%
 - d. 25%
10. Number of live births per 1000 women in the reproductive age group in a year refers to: ☐
 - a. Total Fertility Rate
 - b. Gross Reproduction Rate
 - c. Net Reproduction Rate
 - d. General Fertility Rate
11. Post coital contraceptives are all except: ☐
 - a. Norgestrel
 - b. OCPs
 - c. RU-486
 - d. Copper-T
12. Period between the possible time of detection and actual time of diagnosis is: ☐
 - a. Lead time
 - b. Screening Time
 - c. Generation Time
 - d. Serial Intervention
13. Lowest Iron content is present in: ☐
 - a. Milk
 - b. Liver
 - c. Meat
 - d. Fish

14. Which is the color coding of bag in hospitals to dispose off human anatomical wastes such as appendix: ☐
- a. Yellow
 - b. Black
 - c. Red
 - d. Blue
15. Hardy Weinberg law is related to: ☐
- a. Gene therapy
 - b. Human genome project
 - c. Population genetics
 - d. Eugenics
16. Which one of the following is not a socio-pathological factor associated with mental illness? ☐
- a. Emotional stress
 - b. Frustration
 - c. Endocrine diseases
 - d. Anxiety
17. Pearl Index is defined as: ☐
- a. Accidental pregnancies per 1000 women-years of exposure
 - b. Accidental pregnancies per 100 women-years of exposure
 - c. Accidental pregnancies per 10 women-years of exposure
 - d. Accidental pregnancies per women-years of exposure
18. Pasteurization by Holder method is heating milk at: ☐
- a. 60°C for 45minutes
 - b. 60°C for 30minutes
 - c. 100°C for 15minutes
 - d. 136°C for 15minutes
19. Epidemic dropsy is caused by: ☐
- a. Sanguinarine
 - b. BOAA
 - c. Pyruvic Acid
 - d. Mustard Oil
20. NPU value for Egg is: ☐
- a. 140
 - b. 96
 - c. 81
 - d. 52

SVIMS-SPMCW
COMMUNITY MEDICINE

3rd Year MBBS (Paper -2), Model MCQ test

Attempt all questions

Time: 20 Minutes

Date:

Marks:20

1. A patient from a hilly area was diagnosed with malaria. Which vector is most likely responsible for this? ☐
 - a. Anopheles stephensi
 - b. Anopheles fluviatilis
 - c. Anopheles culicifacies
 - d. Anopheles sudaicus
2. Which of the following indices is the best determinant of a potential plague outbreak? ☐
 - a. Total flea index
 - b. Cheops index
 - c. Burrow index
 - d. Special percentage of fleas.
3. According to IMNCI, Which of the following is a key clinical sign for pneumonia classification? ☐
 - a. Nasal flaring
 - b. Wheezing
 - c. Cough
 - d. Fast breathing
4. A 2-year-old female child was brought to a PHC with a history of cough and fever for 4 days with inability to drink for last 12 hours. On examination, the child was having weight of 5 kg and respiratory rate of 45/minute with fever. The child will be classified as suffering from: ☐
 - a. Very severe disease
 - b. Severe Pneumonia
 - c. Pneumonia
 - d. No Pneumonia
5. A 5 year old boy passed 18 loose stools in last 24 hours and vomited twice in last 4 hours. He is irritable but drinking fluids. The optimal therapy for this child is: ☐
 - a. Intravenous fluids
 - b. Oral rehydration therapy
 - c. Intravenous fluid initially for 4 hours followed by oral fluids
 - d. Plain water add libitum
6. Which of the following is whole virion inactivated corona vaccine: ☐
 - a. Moderna COVID-19 Vaccine
 - b. Pfizer-BioNtech COVID-19 Vaccine
 - c. Covaxin vaccine
 - d. Covishield vaccine
7. In prudent diet, following dietary changes are advised to reduce prevalence of coronary heart disease except: ☐
 - a. Increase in complex carbohydrate consumption.
 - b. Saturated fat intake less than 7% of total energy intake
 - c. Salt intake less than 20g/day
 - d. Reduce fat intake to 20-30% of total energy intake.
8. Which is the cut-off level of Waist-Hip ratio in women indicating abdominal fat accumulation? ☐
 - a. 0.75
 - b. 0.85
 - c. 0.95
 - d. 1.05
9. Disease not included in Vision 2020, India is: ☐
 - a. Cataract
 - b. Glaucoma
 - c. Diabetic Retinopathy
 - d. Onchocerciasis
10. Which of the following Pneumoconiosis is caused by Micropolyspora Faeni? ☐
 - a. Silicosis
 - b. Byssinosis
 - c. Farmer's lung
 - d. Bagassosis
11. Which of the following is not included in '5 cleans' in conduct of delivery? ☐
 - a. Clean hands
 - b. Clean perineum
 - c. Clean cutting and care of cord
 - d. Clean surface for delivery
12. Height of the newborn doubles by the age of ☐
 - a. 5 months
 - b. 1 year
 - c. 4 years
 - d. 5 years

13. As compare to cow's milk, human milk has:

- a. More proteins
- b. Less carbohydrates
- c. More iron
- d. Less of vitamins

☐

14. Gerontology study of :

- a. Infants
- b. Reproductive age group
- c. Adolescents
- d. Old age

☐

15. During a disaster, rapidly classifying the injured on the basis of likelihood of their survival with prompt medical intervention is a part of:

- a. Search, rescue and first aid
- b. Triage
- c. Tagging
- d. Disaster mitigation

☐

16. IT based TB monitoring is known as:

- a. Nischay
- b. Nikshay
- c. Nirbhay
- d. e-DOTS

☐

17. A 45 years old male patient comes to OPD with cough and diarrhea since last 3 weeks. On diagnosis he is found to be HIV positive with Tuberculosis. Next line of management should be:

- a. Start ATT followed by ART
- b. Start ART followed by ATT
- c. Start ATT
- d. Start ART then start ATT after 6-8 weeks

☐

18. Spikes protocol is used for:

- a. Triage
- b. Communication with patients/attendants regarding bad news
- c. Writing death certificate
- d. RCT

☐

19. A group on Medical Education and Support Manpower was popularly known as:

- a. Kartar Singh committee
- b. Mudaliar committee
- c. Srivastava committee
- d. Bhore committee

☐

20. "Critical path" in Network Analysis is:

☐

- a. Most expensive path in a network
- b. Congested path in a network
- c. Shortest path in a network
- d. Longest path in a network

ELECTIVES

Introduction

The MBBS program is geared to create a primary care provider of first contact. It also visualises the student as a future scholar, specialist, researcher and scientist.

Provision of avenues in the competency based undergraduate MBBS program for the student to explore and experience various streams of the profession is important. Electives are learning experiences that will provide the learner with an opportunity to gain immersive experience of a career stream, discipline or research project.

The opportunity to “work” in a clinical, laboratory, research, community set up or in a team-based setting at an early stage in the profession is an invaluable experience for learners as this will have lasting impact on their professional life. An elective allows students to think of a career beyond examinations and gives them an impetus to think laterally besides laying down the foundation for future professional pathways. It also allows students to match their aspirations with the ground reality in a field of their dreams.

The revised Regulations on Graduate Medical Education, part II 2019 (GMER 2019) have created such opportunity in the MBBS program providing students options to do electives in basic sciences, join in ongoing clinical programs and in research settings. This document is meant to guide institutions, Curriculum Committee members and MEU faculty of colleges, and teachers on how to prepare and experience the conduct of an elective that incorporates the principles enshrined in the GMER document, 2019.

Objectives:

- To provide the learner with opportunities: (a) For diverse learning experiences, (b) To do research/community projects that will stimulate enquiry, self-directed, experiential learning and lateral thinking.
- Two months are designated for elective rotations after completion of the examination at end of the third MBBS Part I and before commencement of third MBBS Part II.
- It is mandatory for learners to do an elective. The elective time should not be used to make up for missed clinical postings, shortage of attendance or other purposes.

Structure

- (a) The learner shall rotate through two elective blocks of 04 weeks each.
- (b) Block 1 shall be done in a pre-selected preclinical or para-clinical or other basic sciences laboratory OR under a researcher in an ongoing research project. During the electives, regular clinical postings shall continue.
- (c) Block 2 shall be done in a clinical department (including specialties, superspecialties, ICUs, blood bank and casualty) from a list of electives developed and available in the institution OR as a supervised learning experience at a rural or urban community clinic.
- (d) Institutions will pre-determine the number and nature of electives, names of the supervisors, and the number of learners in each elective based on the local conditions, available resources and faculty.

Block I - Student initiated research

Block II - Rural Community Health Center

Schedule

- The students shall rotate through 2 elective blocks of 2 weeks each.
- The student has to submit a logbook based on the learning in both blocks
- 75% of attendance is the elective postings and record of logbook is mandatory.
- Block I timings are from 1:00 pm to 4:00 pm (They have to go to clinical postings from 9:00 am to 12:00 noon).
- Block II timings are from 8:00 Am to 4:00 pm

Recommended Text books-(Latest edition)

1. Park's text book of preventive and social medicine
2. Kulkarni's text book of preventive and social medicine
3. Sunderlal's text book of preventive and social medicine
4. Suryakantha's text book of Community medicine
5. Essentials of Community medicine practicals- DK Mahabalaraju
6. Nutritive values of Indian foods-C.Gopalan
7. Methods in bio-statistics – BK Mahajan
8. Text book of bio statistics – P Sundar Rao

Reference books

1. Public health and preventive medicine -Maxcy-rosenau
2. Oxford text book of public health -Oxford medical education
3. Uses of epidemiology -Morris
4. Medical statistics -Bradford and hill
5. Preventive and community medicine -Clark
6. Human nutrition and dietetics -Davidson and passmore
7. Practical epidemiology -Barker
8. Theory and practice of public health -Hobson

**DEPARTMENT OF FORENSIC
MEDICINE AND TOXICOLOGY**

CURRICULUM

A. Competencies:

The learner must demonstrate:

Understanding of medico-legal responsibilities of physicians in primary and secondary care settings,

Understanding of the rational approach to the investigation of crime, based on scientific and legal principles,

Ability to manage medical and legal issues in cases of poisoning /overdose,

Understanding the medico-legal framework of medical practice and medical negligence,

Understanding of codes of conduct and medical ethics,

Understanding concept of deceased donor, brain death, and Human Organ Transplantation Act.

B. Broad subject specific objectives:

Knowledge: At the end of the course, the student shall be able to

- Identify the basic Medico-legal aspects of hospital and general practice.
- Define the Medico-legal responsibilities of a general physician while rendering community service either in a rural primary health centre or an urban health centre.
- Appreciate the physician's responsibilities in criminal matters and respect for the codes of Medical ethics.
- Diagnose, manage and identify legal aspect of common acute and chronic poisonings. ● Describe the Medico-legal aspects and findings of post-mortem examination in cases of death due to common unnatural conditions and poisonings.
- Detect occupational and environmental poisoning, prevention and epidemiology of common poisoning and their legal aspects particularly pertaining to Workmen's Compensation Act.
 - Describe the general principles of analytical toxicology.

C. Skills

At the end of the course, the student shall be able to

- Make observations and draw logical inferences in order to initiate enquiries in criminal matters and Medico-legal problems and be able to -
 - Carry on proper Medico-legal examination and documentation/Reporting of Injury and Age.
 - Conduct examination for sexual offences and intoxication.
 - Preserve relevant ancillary materials for medico-legal examination.
 - Identify important post-mortem findings in common unnatural deaths.
 - Diagnose and treat common emergencies in poisoning and chronic toxicity.
 - Make observations and interpret findings at post-mortem examination.
 - Observe the principles of medical ethics in the practice of his profession.

D. Integration:

The teaching should be aligned and integrated horizontally and vertically recognizing the importance of medico-legal, ethical and toxicological issues as they relate to the practice of medicine.

2. COURSE CONTENT AND TEACHING HOURS

A. Teaching Hours (Teaching Learning Methods)

| Forensic Medicine and Toxicology | Lectures | SGL | SDL | Total |
|----------------------------------|----------|-----|-----|-------|
| II MBBS | 12 | 22 | 08 | 42 |
| IIIMBBS –part -1 | 40 | 70 | 20 | 130 |
| Total | 52 | 92 | 28 | 172 |

*Small group discussion (SGD)

*self-directed learning (SDL)

B. Theory Syllabus

| Unit | Topic | Competencies |
|------|--|------------------------------|
| 1 | General Information | FM 1.1-1.9 |
| 2 | Forensic Pathology | FM 2.1-2.35 |
| 3 | Clinical Forensic Medicine | FM 3.1- 3.13 and 3.29 - 3.33 |
| 4 | Medical Jurisprudence (Medical Law and ethics) | FM 4.1-4.30 |
| 5 | Forensic Psychiatry | FM 6.1-6.3 |
| 6 | Forensic Laboratory investigation in medico-legal practice | FM 7.1 |
| 7 | Emerging technologies in Forensic Medicine | FM 5.1-5.6 |
| 8 | General Toxicology | FM 8.1-8.10 |
| 9 | Chemical Toxicology | FM 9.1-9.6 |
| 10 | Pharmaceutical Toxicology | FM 10.1 |
| 11 | Bio-toxicology | FM 11.1 |
| 12 | Socio-medical Toxicology | FM 12.1 |
| 13 | Environmental Toxicology | FM 13.1-13.2 |

C. Practical syllabus

| S. No | Experiment/ Exercise | Competencies |
|--------------|---|---------------------|
| 1 | Age Estimation Certificate | FM 14.4 |
| 2 | Sexual offence certificate - Accused | FM 14.14 |
| 3 | Sexual offence certificate- Survivor | FM 14.15 |
| 4 | Drunkenness certificate | FM 14.16 |
| 5 | Wound Certificate | FM 14.1 |
| 6 | Medico legal Autopsy | FM 14.5, 14.18 |
| 7 | MLR for poisoning case & preservation of biological samples | FM 14.2 & 14.3 |
| 8 | Examination of skeletal remains | FM 14.9 |
| 9 | Weapon Examination | FM 14.11 |
| 10 | Fetal examination | FM 14.13 |
| 11 | Examination of wounds | FM 14.10 |
| 12 | Examination of firearm cartridges | FM 14.12 |
| 13 | Trace evidence | FM 14.6, 14.7, 14.8 |
| 14 | Toxicology Specimens | FM 14.17 |

3. Skill certification

- Maintenance of patient case records, discharge summary, prescribed registers to be maintained in health centres.
- Maintenance of medico-legal register like accident register.
- documents of issuance of wound certificate
- Documents of issuance of drunkenness certificate. - documents of issuance of sickness and fitness certificate.
- Documents for issuance of death certificate.
- Documents of medical certification of cause of death form number 4 and 4a
- Documents for estimation of age by physical, dental and radiological examination and issuance of certificate
- Documents for sexual offences
- Documents for potency
- Establishing communication in medico legal cases with police, public health authorities, other concerned departments, etc.

4. Integration topics

Integration: The teaching should be aligned and integrated horizontally and vertically recognizing the importance of medico-legal, ethical and toxicological issues as they relate to the practice of medicine.

Integration of Forensic Medicine with Other departments:

The suggested topics, competencies and the subjects/departments for integrated teaching are shown in below table.

| <i>Sl. No.</i> | <i>Topic for integration</i> | <i>Subject [Competencies]</i> |
|----------------|------------------------------|--|
| 1 | Injuries / Trauma | Forensic Medicine [FM 3.3, 3.4, 3.8, 3.9, 3.10] General Surgery [SU 17.1, 17.2, 17.3] |
| 2 | Wound healing | General Surgery [SU 5.1, 5.2, 5.3, 5.4] Pathology [PA 5.1] Forensic Medicine [FM 3.6] |
| 3 | Regional injuries | Forensic Medicine [FM 3.11, 3.12] General Surgery [SU 17.4, 17.5, 17.6, 17.7, 17.8, 17.9, 17.10] |
| 4 | Burns | Forensic Medicine [FM 2.24, 2.25] General Surgery [SU 4.1, 4.2, 4.3, 4.4] |
| 5 | Organ transplantation | General Surgery [SU 13.1, 13.2, 13.3, 13.4] Ophthalmology [OP 4.9, 4.10] Forensic Medicine [FM 2.4] |
| 6 | Pregnancy and labour | Forensic Medicine [FM 3.19, 3.20] OBG [OG 6.1, 7.1] |
| 7 | Abortion | Forensic Medicine [FM 3.27, 3.28] OBG [OG 1.3, 9.1, 9.2, 20.1, 20.2] |
| 8 | PCPNDT Act | OBG [OG 20.3] Radiodiagnosis [RD 1.13] Forensic Medicine [FM 3.21] |
| 9 | Impotence and Sterility | Forensic Medicine [FM 3.22, 3.23, 3.24, 3.25, 3.26] Pharmacology [PH 1.40] OBG [OG 28.1, 28.2, 28.3, 28.4] |
| 10 | Psychiatric disorders | Psychiatry [PS 3.7, 3.8] Forensic Medicine [FM 5.1, 5.2, 5.3, 5.4, 5.5, 5.6] |

| | | |
|----|-------------------------------|---|
| 11 | General toxicology | Forensic Medicine [FM 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8] Pharmacology [PH 1.4, 1.5, 1.11] General Medicine [IM 21.1, 21.5, 21.6, 21.7, 21.8] |
| 12 | Insecticides | Forensic Medicine [FM 8.6] Pharmacology [PH 1.52] Community Medicine [CM 3.8] |
| 13 | Corrosives | Forensic Medicine [FM 9.1] General Medicine [IM 21.3] |
| 14 | Heavy metal poisoning | Forensic Medicine [FM 9.2, 9.3] Pharmacology [PH 1.53] |
| 15 | Plant poisons | General Medicine [IM 21.2] Forensic Medicine [FM 10.1] |
| 16 | Snake, scorpion, insect bites | Forensic Medicine [FM 11.1] General Medicine [IM 20.1, 20.2, 20.3, 20.4, 20.5, 20.6, 20.7, 20.8, 20.9] |
| 17 | Alcohol disorders | Pharmacology [PH 1.20, 1.21] Pathology [PA 12.1, 25.4] General Medicine [IM 5.5] Forensic Medicine [FM 9.4] |
| 18 | Drugs of abuse | Pharmacology [PH 1.22, 1.23] Forensic Medicine [FM 12.1] Psychiatry [PS 4.1, 4.2, 4.3, 4.4, 4.6, 4.7] |

| Sl no | Subject | Competen cy number | Competency | TL meth od | Assess ment | Vertical Integratio n | Horizont al Integrati on |
|--------------|------------------|---------------------------|--|-------------------|-------------------------|----------------------------------|---------------------------------|
| 1 | Anatomy | AN14.3 | Describe the importance of ossification of lower end of femur & upper end of tibia | Lectur e | Viva voce / Practical s | Forensic Medicine | - |
| 2 | Pharmacol ogy | PH1.22 | Describe drugs of abuse (dependence, addiction, stimulants, depressants, psychedelics, drugs used for criminal offences) | Lectur e / SGD | Written / Viva voce | Psychiatry | Forensic Medicine |
| 3 | | PH5.7 | Demonstrate an understanding of the legal and ethical aspects of prescribing drugs | SGD | Short note / viva voce | - | Forensic Medicine |
| 4 | Radiodiagn osis | RD1.13 | Describe the components of the PC & PNDT act and its medicolegal implications | Lectur e / SGD | | OBG, Forensic Medicine | - |
| 5 | Psychiatry | PS19.3 | Describe and discuss the basic legal and ethical issues in psychiatry | Lectur e / SGD | Written / Viva voce | Forensic Medicine, AETCOM | - |
| 6 | General Medicine | IM20.1 | Enumerate the poisonous snakes of your area and describe the | Lectur e / SGD | Written / Viva voce | Forensic Medicine, Pharmacolo gy | |

| | | | | | | | |
|----|--|--------|--|-------------------------------|---------------------------------------|---------------------------------|--|
| | | | distinguishing marks of each | | | | |
| 7 | | M20.2 | Describe, demonstrate in a volunteer or a mannequin and educate (to other health care workers / patients) the correct initial management of patient with a snake bite in the field | DOA P session | Skill assessment /Written / Viva voce | Forensic Medicine | |
| 8 | | M20.3 | Describe the initial approach to the stabilisation of the patient who presents with snake bite | Lecture / SGD | Written / Viva voce | Forensic Medicine | |
| 9 | | M20.4 | Elicit and document and present an appropriate history, the circumstance, time, kind of snake, evolution of symptoms in a patient with snake bite | Bedside clinic, DOA P session | Skill assessment | Forensic Medicine | |
| 10 | | IM21.2 | Enumerate the common plant poisons seen in your area and describe their toxicology, clinical features, prognosis and specific | Lecture / SGD | Written / Viva voce | Forensic Medicine, Pharmacology | |

| | | | | | | | |
|----|--|--------|--|-------------------------------|--|---------------------------------|--|
| | | | approach to detoxification | | | | |
| 11 | | IM21.3 | Enumerate the common corrosives used in your area and describe their toxicology, clinical features, prognosis and approach to therapy | Lecture / SGD | Written / Viva voce | Forensic Medicine, Pharmacology | |
| 12 | | IM21.4 | Enumerate the commonly observed drug overdose in your area and describe their toxicology, clinical features, prognosis and approach to therapy | Lecture / SGD | Written / Viva voce | Forensic Medicine, Pharmacology | |
| 13 | | IM21.5 | Observe and describe the functions and role of a poison centre in suspected poisoning | DOA P Session | Document in log book | Forensic Medicine, Pharmacology | |
| 14 | | IM21.6 | Describe the medico legal aspects of suspected suicidal or homicidal poisoning and demonstrate the correct procedure to write a medico legal report on a suspected poisoning | Lecture / SGD / DOA P Session | Written / Viva voce / Skill assessment | Forensic Medicine, Pharmacology | |

| | | | | | | | |
|----|-----|--------|---|-------------------------------|---------------------|---------------------------------|--|
| 15 | | IM21.7 | Counsel family members of a patient with suspected poisoning about the clinical and medico legal aspects with empathy | DOA P Session | Skill assessment | Forensic Medicine, Pharmacology | |
| 16 | | IM21.8 | Enumerate the indications for psychiatric consultation and describe the precautions to be taken in a patient with suspected suicidal ideation / gesture | DOA P Session | Skill assessment | Forensic Medicine, Psychiatry | |
| 17 | OBG | OG1.3 | Define and Discuss still birth and abortion | Lecture / SGD | Notes | Forensic Medicine | |
| 18 | | OG9.2 | Describe the steps and observe/ assist in the performance of an MTP evacuation | DOA P Session, Bedside clinic | Viva voce | Forensic Medicine | |
| 19 | | OG20.1 | Enumerate the indications and describe and discuss the legal aspects, indications, methods for first and second trimester MTP; complications | Lecture / SGD | Written / Viva voce | Forensic Medicine | |

| | | | | | | | |
|----|-----------------|--------|--|--------------------------------|---------------------------------------|---------------------------|--|
| | | | and management of complications of medical termination of pregnancy | | | | |
| 20 | | OG20.2 | In a simulated environment administer informed consent to a person wishing to undergo medical termination of pregnancy | DOA P Session | Skill assessment | Forensic Medicine | |
| 21 | | OG20.3 | Discuss Pre-conception and Pre Natal Diagnostic Techniques (PC& PNDT) Act 1994 & its amendments | Lectur e / SGD | Written / Viva voce | Forensic Medicine | |
| 22 | General Surgery | SU8.1 | Describe the principles of Ethics as it pertains to surgery | Lectur e / SGD | Written / Viva voce/ Skill assessment | Forensic Medicine, AETCOM | |
| 23 | | SU8.2 | Demonstrate Professionalism and empathy to the patient undergoing surgery | Lectur e / SGD / DOA P Session | Written / Viva voce/ Skill assessment | Forensic Medicine, AETCOM | |
| 24 | | SU8.3 | Discuss Medico legal issues in surgical practice | Lectur e / SGD | Written / Viva voce/ Skill assessment | Forensic Medicine, AETCOM | |

5. AETCOM COMPETENCIES FOR THIRD YEAR (PART I)

| | | |
|--------------------------------------|-------|---|
| Forensic Medicine & Toxicology | 3.3 C | Administer informed consent and appropriately address patient queries to a patient undergoing a surgical procedure in a simulated environment |
| | 3.4 | Identify, discuss and defend medico-legal, socio-cultural and ethical issues as it pertains to confidentiality in patient care |

University Examination

6.Marks distribution for of Theory, practical ,ECE,SGL SDL & etc

| Phase of Course- Final MBBS part -1 | Theory | Practicals | Passing criteria |
|--|--------------|------------|--|
| Forensic Medicine & Toxicology | 100 Marks | 50 marks | Mandatory to get 40% marks separately in theory and in practicals; and totally 50% for theory plus practicals. |

Distribution of marks for theory examination

Theory Examination

Theory examination consists of one paper and will have maximum marks of 100

Question paper pattern

Theory question paper pattern for 100 marks for a duration of 3 hours

| | | |
|------------------------------|----------------|------------|
| MCQ | 20 X 1(mark) | = 20 marks |
| Long Answer Question:(LAQ): | 2 X 15(marks) | = 30 marks |
| Short Answer Question (SAQ): | 10 X 5(marks) | = 50 marks |

Distribution of Marks for Practical Examinations:

| | | |
|--|--|--------------------|
| Practical Examination | | (50 marks) |
| Long Exercise – Age Estimation, Sexual offence – accused, sexualoffence – survivor, Drunkenness certificate, post mortem certificate | | 2 x 10 = 20 |
| Short exercise / OSPE - Wound certificate, Preservation ofbiological samples, Medico legal Autopsy, Skeletal remains | | 2 x 05 = 10 |
| | | |
| Spotters | | 10 x 1 = 10 |
| Viva –Voce Examination | | (10 marks) |
| General Information, Forensic Pathology | | |
| Clinical Forensic Medicine | | |
| Medical Jurisprudence , Forensic Psychiatry | | |
| Toxicology | | |
| TOTAL MARKS | | 50 MARKS |

7. Internal Assessment

a) Assessment methods for theory:

- Part completion tests (PCT)
- Home assignments
- Seminar
- Continuous class test (LMS -learning Management system)
- Museum study
- Library assignments
- Attendance theory

b) Assessment methods for practicals

- Part completion tests
- Certifiable skill based competencies
(osce/ospe/sports/exercise/others)
- AETCOM competencies
- SVL lab activity
- Journal (record book/ portfolio)
- Attendance practical

8. Recommended books: latest edition

- 1) Reddy KSN, Murthy OP. The Essentials of Forensic Medicine and Toxicology. 35th edition, 2024. Jaypee Brothers Medical Publishers, New Delhi.
- 2) Pillay VV. Textbook of Forensic Medicine and Toxicology, 20th edition, 2023, Paras Medical Publishers, Hyderabad.
- 3) Karmakar RN. Forensic Medicine and Toxicology: Theory, Oral and Practical, 5th edition, 2015. Academic Publishers, Kolkata.
- 4) Nandy A. Principles of Forensic Medicine including Toxicology, 3rd edition, 2010, New Central Book Agency.
- 5) Subrahmanyam BV. Parikh's Textbook of Medical Jurisprudence, Forensic Medicine and Toxicology, 8th edition, 2019, CBS Publishers.
- 6) Guharaj PV, Gupta SK. Forensic Medicine and Toxicology, 3rd edition, 2019, Universities Press (India) Private Ltd., Hyderabad.
- 7) Bardale R. Principles of Forensic Medicine & Toxicology, 4th edition, 2024, Jaypee Brothers Medical Publishers, New Delhi.
- 8) Biswas G. Review of Forensic Medicine & Toxicology, 6th edition, 2024, Jaypee Brothers Medical Publishers, New Delhi.
- 9) Vij K. Textbook of Forensic Medicine and Toxicology: Principles and Practice, 6th edition, 2022, Elsevier Ltd.
- 10) Ignatius PC. Forensic Medicine and Toxicology, 5th edition, 2022, Elsevier India.
- 11) Pillay VV. NACPFMT's Practical Medicolegal Manual: Medical Ethics, Clinical Forensics & Toxicology, 1st edition, 2019, Paras Medical Publishers, Hyderabad.
- 12) Bakkannavar SM. Forensic Medicine and Toxicology: Practical manual, 1st edition, 2018, Elsevier India.
- 13) Borah. Medical Ethics for Students and Doctors, 1st edition, 2014, Ahuja Publishers.

9. Reference Books & Journals:

- 1) Kannan K. Modi's Medical Jurisprudence and Toxicology, 26th edition, 2019, LexisNexis.
- 2) Karmakar RN. JB Mukherjee's Forensic Medicine and Toxicology, 5th edition 2018, Academic Publishers.
- 3) Dogra TD, Rudra A. Lyon's Medical Jurisprudence and Toxicology. 11th edition (reprint), 2020. Delhi Law House, Delhi.
- 4) Saukko P, Knight B. Knight's Forensic Pathology. 4th edition. 2015, CRC Press
- 5) Pillay VV. Modern Medical Toxicology, 5th edition, 2023, Jaypee Brothers Medical Publishers Ltd., New Delhi.
- 6) Journal of Karnataka Medico-Legal Society.
- 7) Journal of South India Medico-Legal Association.
- 8) Journal of Indian Academy of Forensic Medicine.
- 9) Journal of Indian Society of Toxicology
- 10) Journal of Forensic and Legal Medicine
- 11) Journal of Forensic Sciences
- 12) Indian Journal of Medical Ethics

10. Division of Syllabus Along with Marks For MBBS

| S. No | TOPICS | Competency Number | No. of MCQs | Weightage in % | LAQ | SAQ |
|-------|--|------------------------------|-------------|----------------|-----|-----|
| 1 | General Information | FM 1.1-1.9 | 1 | 1-5 | | Y |
| 2 | Forensic Pathology | FM 2.1-2.35 | 2 | 2-17 | Y | Y |
| 3 | Clinical Forensic Medicine | FM 3.1- 3.13 and 3.29 - 3.33 | 4 | 4-17 | Y | Y |
| | | | | | | |
| 4 | Medical Jurisprudence (Medical Law and ethics) | FM 4.1-4.30 | 2 | 2-17 | Y | Y |
| 5 | Forensic Laboratory investigation in medico-legal practice | FM 6.1-6.3 | 1 | 1-6 | | Y |
| 6 | Emerging technologies in Forensic Medicine | FM 7.1 | 1 | 1-6 | | Y |
| 7 | Forensic Psychiatry | FM 5.1-5.6 | 1 | 1-16 | Y | Y |
| 8 | General Toxicology | FM 8.1-8.10 | 1 | 1-16 | Y | Y |
| 9 | Chemical Toxicology | FM 9.1-9.6 | 2 | 2-17 | Y | Y |
| 10 | Pharmaceutical Toxicology | FM 10.1 | 1 | 1-6 | | Y |
| 11 | Bio-toxicology | FM 11.1 | 1 | 1-16 | Y | Y |
| 12 | Socio-medical Toxicology | FM 12.1 | 2 | 2-17 | Y | Y |
| 13 | Environmental Toxicology | FM 13.1-13.2 | 1 | 1-6 | | Y |

11. Model Question papers

Department of Forensic Medicine & Toxicology *Forensic Medicine & Toxicology*

Answer all questions, Illustrate your answer with diagrams wherever relevant

Max Marks 100 Max Time 3 hours

Long Essays

(15x2= 30)

1). A 34 year old police officer with no previous relevant medical history suffers from crampy abdominal pain, intermittent nausea, occasional vomiting and persistent diarrhea for several weeks in conjunction with muscular weakness to his lower legs and exfoliative rash on paler surface of both hand and planta of both feet.

(2+2+1+3+2+3+2 = 15 Marks)

- i. What is the cause of this mans apparent gastroenteritis and why?
 - ii. What are the other usual signs and symptoms ?
 - iii. What studies should be obtaines when considering the diagnosis
 - iv. What is the medicolegal importance
 - v. As a trating physician, what is your role in such case.
- 2). Define Injury? Classify mechanical injuries. Write in detail about definition, types, Ageing, Medico Legal importance and Differential diagnosis of Abrasion?

(2+2+1+3+2+3+2 =15) Marks)

Write short notes on:

(10 X 5 = 50 Marks)

3. Medico Legal Importance of Age.
4. Causes of death in Burns.
5. Post mortem finding of ante mortem hanging.
6. Hypothermia
7. Differences between incised wound and lacerated wound.
8. Causes of sudden death.
9. Tattoo marks.
10. Dying Declaration.
11. Dactylography.
12. Harvard Criteria of Death.

MCQ s

20 X1 = 20 MARKS

- 1). Chief Judicial magistrate can give sentence of imprisonment upto:
()
- a) 3 years
 - b) 5 years
 - c) 7 years
 - d) Life imprisonment
2. Dying deposition is done by: ()
- a) Doctor
 - b) Magistrate
 - c) Police
 - d) All
3. A lady died due to unnatural death within 7 years of her marriage, in India Inquest is done by ()
- a) Forensic Medicine expert b) Deputy Superintendent of Police
 - c) Sub-divisional Magistrate d) Coroner
4. When a group of muscles of a dead body were in a state of strong contraction immediately prior to death and remain so even after death is termed as:
()
- a) Gas stiffening b) Rigor mortis
 - c) Cadaveric spasm d) Cold stiffening
5. Ideal place to record the body temperature in dead body is:
()
- a) Rectum
 - b) Axilla
 - c) Mouth
 - d) Groin

12. Convulsions, coma associated with metabolic acidosis may be caused by toxicity with

each of the following intoxication, except: ()

- a) Methanol.
- b) Salicylates.
- c) Carbolic acid.
- d) Amphetamine.

13. The manifestations of methanol toxicity include all of the following except:

- a) Diplopia. ()
- b) Hiccough.
- c) Slurred speech.
- d) Occupational delirium.

14. Benzodiazepines can be used in treatment of the following cases except:

- a) Tetanus. ()
- b) Insomnia.
- c) Schizophrenia.
- d) Anxiety.

15. Uncommon side-effects of tricyclic antidepressant therapy include which of the following?

- a) A dry mouth. ()
- b) Tremor.
- c) Constipation.
- d) Extra pyramidal movement disorders.

16. Oligemic Shock in cases of burn results from:

- a) Severe pain. ()
- b) Loss of plasma from burnt area.
- c) Histamine release.
- d) Burn toxins.

17. The upper part of the body is congested or cyanosed compared to the lower part in case of:

- a) Traumatic asphyxia. ()
- b) Overlying. ()
- c) Gagging. ()
- d) Mugging ()

18. A 6 years old female was found dead with a rope tightened around her neck. On examination, recent tears of the hymen and the anus were detected.

- What is the possible cause and condition of death? ()
- What is the PM picture of this type of fatality?
- Describe the tears detected and explain.\
- What are the medicolegal consequences of this crime?

19. After delivery, the fundal level reaches the symphysis pubis by the end of:

- a) 1st week.
- b) 2nd week.
- c) 3rd week.
- d) 4th week.

20. Maximum tissue destruction occurs with:

- a) Long jacketed bullet. ()
- b) Dumdum bullet.
- c) Tapering end bullet.
- d) Short jacketed bullet.

12. Theory and practical assessment marks as per NMC

Assessment methods for theory

Year/Phase
Part

| S.No. | Roll No. | Name of Student | Formative Assessment_Theory | | | Continuous Internal assessment_Theory | | | | | Total | Percentage Theory (Minimum cut off 40%) | Cumulative percent of Theory & Practical Theory+ Practical = 375+500= 875 (Minimum cut off 50%) |
|-------|----------|-----------------|-----------------------------|-------------------|-------------------------------------|---------------------------------------|---------|-----------------------------------|---|------------------------|----------------------|--|---|
| | | | 1st PCT Theory | 2nd PCT Theory | Prelims Theory (Paper I & II) | Home Assignment | Seminar | Continuous Class Test (LMS) | Museum study Self Directed Learning | Library assignments | Attendance Theory | | |
| | | | 100 | 100 | 100 | 10 | 10 | 25 | 10 | 10 | 10 | 375 | % |
| 1 | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Assessment methods for practicals

Faculty MBBS Year/Phase-

Date_dd/mm/yyyy

| | | | Formative Assessment | | | Continuous Internal Assessment (Practical) | | | | | | |
|-------|----------|--------------------|---|---|----------------------|---|---------------------|---------------------|---|---------------------------|-------|---|
| | | | 1st PCT Practical/First Ward Leaving Examination | 2nd PCT Practical /Second Ward Leaving Examination | Prelims Practical | Log book (150) | | | Journal (Record book/ Portfolio) | Attendance (Practical) | Total | Percentage Practical (Minimum cut off 40%) |
| S.No. | Roll No. | Name of Student | | | | Certifiable skill based competencies (Through OSPE/OSCE/Spots/Exercise/Other) | AETCOM competencies | SVL Lab activity | | | | |
| | | | 100 | 100 | 100 | 70 | 40 | 40 | 40 | 10 | 500 | % |
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | |

DEPARTMENT OF Otorhinolaryngology (ENT)

1. CURRICULUM

A. Competencies

The learner must demonstrate:

- Knowledge of the common otorhinolaryngology(ENT) emergencies and problems
- Ability to recognize, diagnose and manage common ENT emergencies and problems in primary care setting.
- Ability to perform simple ENT procedures as applicable in a primary care setting
- Ability to recognize hearing impairment and refer to the appropriate hearing impairment rehabilitation programme.

B. Broad subject specific objectives:

Knowledge: At the end of the course, the student shall be able to :

- Describe the basic pathophysiology of common Ear, Nose & Throat (ENT) diseases and emergencies.
- Adopt the rational use of commonly used drugs keeping in mind their adverse reactions
- Suggest common investigative procedures and their interpretation

C. Skills:

At the end of the course the student shall be able to

- Examination and diagnose common ENT problems including pre malignant and malignant disorders of the head and neck
- Manage ENT problems at first level of care and be able to refer whenever necessary
- Assist/ Carry out minor ENT procedures like ear syringing, ear dressing, nasal packing
- Assist in certain procedures such as tracheostomy, endoscopy and removal of foreign bodies

D. Integration:

The teaching should be aligned and integrated horizontally and vertically in order to allow the learner to understand the structural basis of ENT problems, their management and correlation with function, rehabilitation and quality of life. The undergraduate training ENT will provide an integrated approach to wards other disciplines especially, neurosciences, Ophthalmology and general surgery.

2. COURSE CONTENT TEACHING HOURS

Teaching hours (Teaching learning methods)

❖ **Distribution of subject wise teaching hours for final MBBS Part-I**

| | Lectures | SGL | SDL | Total weeks |
|--|----------|-----|-----|-------------|
|--|----------|-----|-----|-------------|

| | | | | |
|---------------------|----|----|----|----|
| Otorhinolaryngology | 15 | 20 | 10 | 45 |
|---------------------|----|----|----|----|

❖ **Distribution of subject wise teaching hours for Final MBBS Part –II**

| Subject | Lectures | SGL | SDL | Total weeks |
|---------------------|----------|-----|-----|-------------|
| Otorhinolaryngology | 15 | 25 | 15 | 55 |

❖ **Clinical postings schedules in weeks**

| Subjects | Period of training in weeks | | | Total weeks |
|---------------------|-----------------------------|-----------------|------------------|-------------|
| | II MBBS | III MBBS Part-I | III MBBS Part-II | |
| Otorhinolaryngology | 00 | 03 | 04 | 07 |

Theory syllabus:

Final MBBS Part-I

Lectures -15

1. Anatomy of Ear
2. Physiology of the ear
3. Anatomy of Nose
4. Physiology of the nose
5. Anatomy of Throat
6. Physiology of the throat
7. Anatomy of Head & Neck
8. Physiology of Head and neck
9. Diseases of Nasal Septum
10. ALLERGIC Rhinitis
11. VMR
12. Epistaxis
13. Acute & chronic Pharyngitis
14. ACUTE AND CHRONIC Tonsillitis
15. Laryngeal Infections & Benign disorders of Larynx

FINAL MBBS PART-II

Lectures -15

1. Diseases of the External Ear
2. Noninfectious disorders of Middle Ear
3. Middle Ear -AOM
4. MIDDLE EAR-CSOM
5. INNER EAR-ACOUSTIC NEUROMA
6. TINNITUS
7. Vertigo & Balance Disorders
8. Facial Nerve Paralysis

9. Tumors of Nose & PNS
10. JNA
11. Head & Neck Space Infections
12. Malignancy of Larynx
13. Malignancy of Hypopharynx
14. Stridor
15. Management of Airway Emergencies

Small Group Teaching– 45 hours

Final MBBS Part-I-20 Hours

Proposed topic

| S.No | Topics | No of Hours | SG TL Methods |
|------|---|-------------|--|
| 1. | Anatomy and physiology of ear | 02 | Seminars and model/ chart marking |
| 2. | Otoscopic examination of the tympanic membrane | 02 | Simulation (DOAP) |
| 3. | Otomicroscopic examination in a simulated environment | 02 | Simulation (DOAP) |
| 4. | Tuning fork test | 02 | DOAP |
| 5 | Diagnostic nasal endoscopy & Anatomy of nose | 03 | Seminars, Video demonstration & Simulation |
| 6 | Smell and taste perception | 02 | Seminar. SGD chart making |
| 7 | Epistaxis and anterior nasal packing | 03 | Seminar, Video demonstration & simulation |
| 8 | Surgical procedures of the nose | 02 | Seminars & Video Demonstration |
| 9 | Anatomy and Physiology of throat | 02 | Seminar and Model /Chart making |

| S.No | Topics | No of Hours | SG TL Methods |
|------|--|-------------|-------------------------------------|
| 1 | Foreign body removal from ear/ Syringing wax from ear | 02 | Simulation (DOAP) |
| 2 | Assessment and rehabilitation of hearing impaired NPPCD | 02 | Seminar and SGD (DOAP) |
| 3 | Interpretation of pure tone audiograms and impedance audiogram | 04 | SGD (Discussion of patient reports) |
| 4 | OAE, BERA | 02 | Simulation (BOAP) |
| 5 | Surgical procedure of the ear | 04 | Seminar & Video demonstration |

| | | | |
|----|--|----|--|
| 6 | Foreign bodies in the nose and upper respiratory tract and their management | 03 | Video demonstration and simulation |
| 7 | Surgical procedures of the throat | 02 | Seminar and video demonstration & simulation |
| 8 | Airway emergency and management of stridor (including tracheostomy) | 03 | Seminar and video Demonstration |
| 9 | Counsel and administer informed consent | 01 | Simulation –DOAP |
| 10 | Malignant and pre malignant ENT Disease | 01 | Seminar, SGD |
| 11 | The national programs for prevention of deafness cancer, noise and environment pollution | 01 | Seminar, Awareness activities |

Final MBBS Part-II -25 Hours

Self-Directed Learnings- (25) -10 Hours

FINAL MBBS PART-I

Proposed topics

- 1) Discuss the prevalence of oral cancer and enumerate the common types of cancer that can affect tissues of the oral cavity .
- 2) Discuss the role of etiological factors in the formation of precancerous /cancerous lesions
- 3) Identify potential pre-cancerous /cancerous lesions
- 4) Describe the clinical features in a patient presenting with Diseases of salivary glands
- 5) Choose the correct investigations in a patient presenting with Diseases of salivary glands
- 6) Describe the principles of management of Diseases of salivary glands
- 7) Enumerate the Diseases of Oesophagus
- 8) Describe the clinical features in a patient presenting with Disease of Oesophagus
- 9) Choose the correct investigations for a patient presenting with Disease of Oesophagus
- 10) Rhinosinusitis

FINAL MBBS PAR-II-15 Hours

- 1) Describe the clinical features of patient presenting with Meniere's Disease
- 2) Describe the investigations required for patient presenting with Meniere's Disease

- 3) Describe the principles of management of Meniere's Disease .
- 4) Describe the clinical features in a patient presenting with trauma to face
- 5) Choose the correct investigations in a patient presenting with trauma to face
- 6) Describe the principles of management of trauma to face
- 7) Describe the Clinical Feature, Investigations and Principles of Management of Trauma to the neck
- 8) Describe the clinical features in a patient presenting with Tumors of Nasopharynx .
- 9) Choose the correct investigations in a patient presenting with Tumors of Nasopharynx
- 10) Describe the clinical features in a patient presenting with HIV manifestations of the ENT
- 11) Choose the correct investigations for a patient presenting with HIV manifestations of the ENT
- 12) Describe the principles of management of HIV manifestations of the ENT
- 13) Hearing Loss
- 14) Vertigo
- 15) Allergy

Competencies, Slos, Teaching Learning And Assessment Methods

Core competencies –color Blue Non - Core competencies – colorGreen

TOPIC: ANATOMY AND PHYSIOLOGY OF EAR, NOSE, THROAT, HEAD & NECK

Number of competencies:(02)
certification:(NIL)

Number of procedures that require

EN1.1Describe the Anatomy & physiology of ear, nose, throat, head & neck
Domain–K
Vertical Integration – Human Anatomy

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|---------|--|---------------------------|--------------------|
| EN1.1.1 | Describe the Anatomy of ear | Lecture, Demonstration | Written, viva-voce |
| EN1.1.2 | Describe the Anatomy of nose | Lecture, Demonstration | Written, viva-voce |
| EN1.1.3 | Describe the Anatomy of throat | Lecture, Demonstration | Written, viva-voce |
| EN1.1.4 | Describe the Anatomy of head & neck | Lecture, Demonstration | Written, viva-voce |
| EN1.1.5 | Describe the Physiology of ear | Lecture, Demonstration | Written, viva-voce |
| EN1.1.6 | Describe the Physiology of nose | Lecture, Demonstration | Written, viva-voce |
| EN1.1.7 | Describe the Physiology of throat | Lecture, Demonstration | Written, viva-voce |
| EN1.1.8 | Describe the Physiology of head & neck | Lecture, Demonstration | Written, viva-voce |

EN1.2 Describe the patho-physiology of common diseases in ENT

Domain–K

Vertical Integration – Pathology

Level –KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|---------|---|---|--------------------|
| EN1.2.1 | Describe the patho-physiology of common diseases of the ear | Lecture, Demonstration, Bedside clinics | Written, viva-voce |
| EN1.2.2 | Describe the patho-physiology of common diseases of the nose | Lecture, Demonstration, Bedside clinics | Written, viva-voce |
| EN1.2.3 | Describe the patho-physiology of common diseases of the throat | Lecture, Demonstration, Bedside clinics | Written, viva-voce |
| EN1.2.4 | Describe the patho-physiology of common diseases of the head & neck | Lecture, Demonstration, Bedside clinics | Written, viva-voce |

TOPIC: CLINICAL SKILLS

Number of competencies: (15)

Number of procedures that require certification: (NIL)

To be taught and assessed in bed-side clinics and / or simulated environment.

EN2.1 Elicit document and present an appropriate history in a patient presenting with an ENT complaint

Domain–K/S/A/C

Level – SH

EN2.2 Demonstrate the correct use of a headlamp in the examination of the ear, nose and throat

Domain–S

Level –SH

EN2.3 Demonstrate the correct technique of examination of the ear including Otoscopy

Domain–K/S/A

Level – SH

EN2.4 Demonstrate the correct technique of performance and interpret tuning fork tests

Domain–K/S/A

Level – SH

EN2.5 Demonstrate the correct technique of examination of the nose & paranasal sinuses including the use of nasal speculum

Domain–S

Level –SH

EN2.6 Demonstrate the correct technique of examining the throat including the use of a tongue depressor

Domain–S

Level –SH

| | |
|---|------------|
| EN2.7 Demonstrate the correct technique of examination of neck including elicitation of laryngeal crepitus | |
| Domain–S | Level –SH |
| EN2.8 Demonstrate the correct technique to perform and interpret pure tone audiogram & impedance audiogram | |
| Domain–K/S | Level – SH |
| EN2.9 Choose correctly and interpret radiological, microbiological & histological investigations relevant to the ENT disorders | |
| Domain–K/S | Level – SH |
| EN2.10 Identify and describe the use of y common instruments used in ENT surgery | |
| Domain–K | Level –SH |
| EN2.11 Describe and identify by clinical examination malignant & pre- malignant ENT diseases | |
| Domain–K/S | Level –SH |
| EN2.12 Counsel and administer informed consent to patients and their families in a simulated environment | |
| Domain–S/A/C | Level – SH |
| EN2.13 Identify, resuscitate and manage ENT emergencies in a simulated environment (including tracheostomy, anterior nasal packing, removal of foreign bodies in ear, nose, throat and upper respiratory tract) | |
| Domain–K/S/A | Level – SH |
| EN2.14 Demonstrate the correct technique to instilling topical medications in to the ear, nose and throat in a simulated environment | |
| Domain–K/S | Level – SH |
| EN2.15 Describe the national programs for prevention of deafness, cancer, noise & environmental pollution | |
| Domain–K | Level – KH |

TOPIC: DIAGNOSTIC AND THERAPEUTIC PROCEDURES IN ENT

Number of competencies:(06)
certification:(NIL)

Number of procedures that require

To be taught and assessed in bed-side clinics and / or simulated environment.

EN3.1 Observe and describe the indications for and steps involved in the performance of Oto-microscopic examination in a simulated environment

Domain–S

Level – KH

EN3.2 Observe and describe the indications for and steps involved in the performance of diagnostic nasal Endoscopy

Domain–S

Level – KH

EN3.3 Observe and describe the indications for and steps involved in the performance of Rigid/Flexible Laryngoscopy

Domain–K

Level – KH

EN3.4 Observe and describe the indications for and steps involved in the removal of foreign bodies from ear, nose & throat

Domain–K

Level – KH

EN3.5 Observe and describe the indications for and steps involved in the surgical procedures in ear, nose & throat

Domain–K

Level – KH

EN3.6 Observe and describe the indications for and steps involved in the skills of emergency procedures in ear, nose & throat

Domain–K

Level – KH

TOPIC: MANAGEMENT OF DISEASES OF EAR, NOSE & THROAT

Number of competencies:(53)

Number of procedures that require

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|---------|--|---------------------------|--------------------|
| EN4.1.1 | List the causes of Otalgia | Lecture | Written, viva-voce |
| EN4.1.2 | Elicit correct history in patients with Otalgia | Bedside clinic | Skill assessment |
| EN4.1.3 | Document and present correct history in patients with Otalgia | Bedside clinic Skill | Assessment |
| EN4.1.4 | Describe the clinical features in a patient presenting with Otalgia | Bedside clinic Skill | Assessment |
| EN4.1.5 | Choose the correct investigations in a patient presenting with Otalgia | Bedside clinic Viva voce | |
| EN4.1.6 | Describe the principles of management of Otalgia | Lecture ,Bedside clinic | Viva voce |

certification:(NIL)

EN4.1 Elicit, document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Otalgia Domain–K/S

Leve

I - SH

EN4.2 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of diseases of the external Ear

Domain–K/S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|---------|---|---------------------------|--------------------|
| EN4.2.1 | List the diseases of external ear | Lecture | Written, viva-voce |
| EN4.2.2 | Elicit correct history in patients presenting with disease of the external Ear | Bedside clinic | Skill assessment |
| EN4.2.3 | Document and present correct history in patients with diseases of the external Ear | Bedside clinic | Skill assessment |
| EN4.2.4 | Describe the clinical features in a patient presenting with diseases of the external Ear | Bedside clinic | Skill assessment |
| EN4.2.5 | Choose the correct investigations in a patient presenting with diseases of the external Ear | Bedside clinic | Viva voce |

| | | | |
|---------|---|-------------------------|-----------|
| EN4.2.6 | Describe the principles of management of diseases of the external Ear | Lecture ,Bedside clinic | Viva voce |
|---------|---|-------------------------|-----------|

EN4.3 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of ASOM

Domain–K/S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|---------|--|---------------------------|--------------------|
| EN4.3.1 | Elicit correct history in patients presenting with ASOM | Bedside clinic | Skill assessment |
| EN4.3.2 | Document and present correct history in patients with ASOM | Bedside clinic | Skill assessment |
| EN4.3.3 | Describe the clinical features in a patient presenting with ASOM | Bedside | Skill |

| | | | |
|---------|---|-------------------------|------------|
| | | clinic | Assessment |
| EN4.3.4 | Choose the correct investigations in a patient presenting with ASOM | Bedside clinic | Viva voce |
| EN4.3.5 | Describe the principles of management of ASOM | Lecture ,Bedside clinic | Viva voce |

EN4.4 Demonstrate the correct technique to hold visualize and assess the mobility of the tympanic membrane and its mobility and interpret and diagrammatically represent the findings

Domain–K/S/A

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|---------|---|---------------------------|--------------------|
| EN4.4.1 | Describe the normal appearance of Tympanic membrane | Lecture | Viva voce |
| EN4.4.2 | Demonstrate the correct technique to hold & visualize the tympanic membrane | DOAP session | Skill assessment |
| EN4.4.3 | Demonstrate the correct technique to assess the mobility of the tympanic membrane | DOAP session | Skill assessment |
| EN4.4.4 | Interpret and diagrammatically represent the findings of the tympanic membrane assessment | Bedside clinics | Viva voce |

EN4.5 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of OME

Domain–K/S

Level -SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|---------|--|---------------------------|--------------------|
| EN4.5.1 | Elicit correct history in patients presenting with OME | Bedside clinics | Skill assessment |
| EN4.5.2 | Document and present correct history in patients with OME | Bedside clinics | Skill assessment |
| EN4.5.3 | Describe the clinical features in a patient presenting with OME | Lecture, Bedside clinics | Skill assessment |
| EN4.5.4 | Choose the correct investigations in a patient presenting with O | Bedside clinics | Viva voce |
| EN4.5.5 | Describe the principles of management of OME | Lecture | Written, viva voce |

EN4.6 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Discharging ear
Domain–K/S Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|---------|--|---------------------------|--------------------|
| EN4.6.1 | List the causes of Discharging ear | Lecture | Written, viva-voce |
| EN4.6.2 | Elicit correct history in patients presenting with Discharging ear | Bedside clinic | Skill assessment |
| EN4.6.3 | Document and present correct history in patients with Discharging ear | Bedside clinic | Skill assessment |
| EN4.6.4 | Describe the clinical features in a patient presenting with Discharging ear | Bedside clinic | Skill assessment |
| EN4.6.5 | Choose the correct investigations in a patient presenting with Discharging ear | Bedside clinic | Viva voce |
| EN4.6.6 | Describe the principles of management of Discharging ear | Lecture ,Bedside clinic | Written, Viva voce |

EN4.7 Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of mucosal type of CSOM
Domain–K/S Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|---------|---|---------------------------|--------------------|
| EN4.7.1 | Elicit correct history in patients presenting with mucosal type of CSOM | Bedside clinic | Skill assessment |
| EN4.7.2 | Document and present correct history in patients with mucosal type of CSOM | Bedside clinic | Skill assessment |
| EN4.7.3 | Describe the clinical features in a patient presenting with mucosal type of CSOM | Bedside clinic | Skill assessment |
| EN4.7.4 | Choose the correct investigations in a patient presenting with mucosal type of CSOM | Bedside clinic | Viva voce, written |
| EN4.7.5 | Describe the principles of management of mucosal type of CSOM | Lecture ,Bedside Clinic | Written, Viva Voce |

EN4.8 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of CSOM
Domain–K/S Level -SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|---------|---|---------------------------|--------------------|
| EN4.8.1 | Elicit correct history in patients presenting with squamosal type of CSOM | Bedside clinic | Skill assessment |
| EN4.8.2 | Document and present correct history in patients with squamosal type of CSOM | Bedside clinic | Skill assessment |
| EN4.8.3 | Describe the clinical features in a patient presenting with squamosal type of CSOM | Bedside clinic | Skill assessment |
| EN4.8.4 | Choose the correct investigations in a patient presenting with squamosal type of CSOM | Bedside clinic | Viva voce, written |
| EN4.8.5 | Describe the principles of management of squamosal type of CSOM | Lecture ,Bedside clinic | Written, Viva voce |

EN4.9 Demonstrate the correct technique for syringing wax from the ear in a simulated environment
Domain–S Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|---------|---|---------------------------|--------------------|
| EN4.9.1 | Describe the correct technique for syringing wax from the ear | DOAP | Skill assessment |
| EN4.9.2 | Demonstrate the correct technique for syringing wax from the ear in a simulated environment | DOAP | Skill assessment |

EN4.10 Observe and describe the indications for and steps involved in myringotomy and myringoplasty

Domain-S

Level - KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|------------------------------|---------------------|
| EN4.10.1 | Enumerate the indications for myringotomy | Lecture | Written , viva voce |
| EN4.10.2 | Describe the steps of myringotomy | Lecture, video demonstration | Written , viva Voce |
| EN4.10.3 | Observe steps involved in myringotomy | Clinical (OT) | Written , viva voce |
| EN4.10.4 | Enumerate the indications for myringoplasty | Lecture | Written , viva voce |
| EN4.10.5 | Describe the steps of myringoplasty | Lecture, video demonstration | Written , viva voce |
| EN4.10.6 | Observe steps involved in myringoplasty | Clinical (OT) | Written , viva voce |

EN4.11 Enumerate the indications describe the steps and observe a Mastoidectomy

Domain-K/S

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|---------------------|
| EN4.11.1 | Enumerate the indications for Mastoidectomy | Lecture | Written , viva voce |
| EN4.11.2 | Describe the steps of Mastoidectomy | Lecture | Written , viva Voce |
| EN4.11.3 | Observe steps involved in Mastoidectomy | Clinical (OT) | Written , viva voce |

EN4.12 Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Hearing loss

Domain-K/S

Level -SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.12.1 | List the causes of Hearing loss | Lecture | Written, viva-voce |
| EN4.12.2 | Elicit correct history in patients presenting with Hearing loss | Bedside clinic | Skill assessment |
| EN4.12.3 | Document and present correct history in patients with Hearing loss | Bedside clinic | Skill assessment |
| EN4.12.4 | Describe the clinical features in a patient presenting with Hearing loss | Bedside clinic | Skill assessment |

features, investigations and principles of management of Otosclerosis

Domain-K

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|--------|-----------------------------|---------------------------|--------------------|
|--------|-----------------------------|---------------------------|--------------------|

| | | | |
|----------|--|-------------------------|--------------------|
| EN4.13.1 | Describe the clinical features of Otosclerosis | Lecture | Written |
| EN4.13.2 | Describe the investigations required for patient with Otosclerosis | Bedside clinic | Viva voce |
| EN4.13.3 | Describe the principles of management of Otosclerosis | Lecture ,Bedside clinic | Written, Viva voce |

EN4.14 Describe the clinical features, investigations and principles of management of Sudden Sensorineural Hearing Loss

Domain–K

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.14.1 | Describe the clinical features of Sudden Sensorineural Hearing Loss | Lecture | Written |
| EN4.14.2 | Describe the investigations required for patient presenting with Sudden Sensorineural Hearing Loss | Bedside clinic | Viva voce |
| EN4.14.3 | Describe the principles of management of Sudden Sensorineural Hearing Loss | Lecture ,Bedside clinic | Written, Viva voce |

EN4.15 Describe the clinical features, investigations and principles of management of Noise Induced Hearing Loss

Domain–K

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.15.1 | Describe the clinical features of Noise Induced Hearing Loss | Lecture | Written |
| EN4.15.2 | Describe the investigations required for patient presenting with Noise Induced Hearing Loss | Bedside clinic | Viva voce |
| EN4.15.3 | Describe the principles of management of Noise Induced Hearing Loss | Lecture ,Bedside clinic | Written, Viva voce |

EN4.16 Observe and describe the indications for and steps involved in the performance of pure tone audiometry

Domain–S

Level - KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.16.1 | Enumerate the indications for pure tone audiometry | Lecture | Written, viva voce |
| EN4.16.2 | Describe the steps involved in the performance of pure tone audiometry | DOAP | viva voce |
| EN4.16.3 | Observe the steps involved in the performance of pure tone audiometry | DOAP | viva voce |

EN4.17 Enumerate the indications and interpret the results of an audiogram

Domain–S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.17.1 | Enumerate the indications for an audiogram | Bedside clinics, DOAP | Viva voce |
| EN4.17.2 | Interpret the results of an audiogram | DOAP | Skill assessment |

EN4.18 Describe the clinical features, investigations and principles of management of Facial Nerve palsy

Domain–K

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.18.1 | Describe the clinical features of Facial Nerve palsy | Lecture | Written, viva voce |
| EN4.18.2 | Describe the investigations required for patient presenting with Facial Nerve palsy | Bedside clinics | Written, viva voce |
| EN4.18.3 | Describe the principles of management of Facial Nerve palsy | Lecture ,Bedside clinic | Written, Viva voce |

EN4.19 Describe the clinical features, investigations and principles of management of Vertigo

Domain–K

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.19.1 | Describe the clinical features of patient presenting with Vertigo | Lecture | Written, viva voce |
| EN4.19.2 | Describe the investigations required for patient presenting with Vertigo | Bedside clinics | Written, viva voce |
| EN4.19.3 | Describe the principles of management of Vertigo | Lecture ,Bedside clinic | Written, Viva voce |

EN4.21 Describe the clinical features, investigations and principles of management of Tinnitus

Domain–K

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.21.1 | Describe the clinical features of patient presenting with Tinnitus | Lecture | Written, viva voce |
| EN4.21.2 | Describe the investigations required for patient presenting with Tinnitus | Bedside clinics | Written, viva voce |
| EN4.21.3 | Describe the principles of management of Tinnitus | Lecture ,Bedside clinic | Written, Viva voce |

EN4.22 Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Nasal Obstruction

Domain–K/S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.22.1 | List the causes of Nasal obstruction | Lecture | Written, viva-voce |
| EN4.22.2 | Elicit correct history in patients presenting with Nasal obstruction | Bedside clinic | Skill assessment |
| EN4.22.3 | Document and present correct history in patients with Nasal obstruction | Bedside clinic | Skill assessment |
| EN4.22.4 | Describe the clinical features in a patient presenting with Nasal obstruction | Bedside clinic | Skill assessment |
| EN4.22.5 | Choose the correct investigations in a patient presenting with Nasal obstruction | Bedside clinic | Viva voce |
| EN4.22.6 | Describe the principles of management of Nasal obstruction | Lecture ,Bedside clinic | Written, Viva voce |

EN4.23 Describe the clinical features, investigations and principles of management of DNS

Domain–K

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.23.1 | Describe the clinical features of patient presenting with DNS | Lecture | Written, viva voce |
| EN4.23.2 | Describe the investigations required for patient presenting with DNS | Bedside clinics | Written, viva voce |
| EN4.23.3 | Describe the principles of management of DNS | Lecture ,Bedside clinic | Written, Viva voce |

EN4.24 Enumerate the indications observe and describe the steps in a septoplasty

Domain–S

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|----------------------------|---------------------|
| EN4.24.1 | Enumerate the indications for septoplasty | Lecture | Written , viva voce |
| EN4.24.2 | Describe the steps of septoplasty | DOAP - video demonstration | Written , viva voce |
| EN4.24.3 | Observe steps involved in septoplasty | DOAP - Clinical (OT) | Written , viva voce |

EN4.25 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Nasal Polyps

Domain–K/S

Level -SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.25.1 | Elicit correct history in patients presenting with Nasal polyps | Bedside clinic | Skill Assessment |
| EN4.25.2 | Document and present correct history in patients with Nasal polyps | Bedside clinic | Skill assessment |
| EN4.25.3 | Describe the clinical features in a patient presenting with Nasal polyps | Bedside clinic | Skill assessment |
| EN4.25.4 | Choose the correct investigations in a patient presenting with Nasal polyps | Bedside clinic | Viva voce |
| EN4.25.5 | Describe the principles of management of Nasalpolyps | Lecture ,Bedside clinic | Written, Viva voce |

EN4.26 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Adenoids

Domain–K/S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.26.1 | Elicit correct history in patients presenting with Nasal polyps | Bedside clinic | Skill assessment |
| EN4.26.2 | Document and present correct history in patients with Nasal polyps | Bedside clinic | Skill assessment |
| EN4.26.3 | Describe the clinical features in a patient presenting with Nasal polyps | Bedside clinic | Skill assessment |
| EN4.26.4 | Choose the correct investigations in a patient presenting with Nasal polyps | Lecture, DOAP | Viva voce |
| EN4.26.5 | Describe the principles of management of Nasalpolyps | Lecture ,Bedside Clinic | Written, Viva Voce |

EN4.27 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Allergic Rhinitis

Domain–K/S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.27.1 | Elicit correct history in patients presenting with Allergic Rhinitis | Bedside clinic | Skill assessment |
| EN4.27.2 | Document and present correct history in patients with Allergic Rhinitis | Bedside clinic | Skill assessment |
| EN4.27.3 | Describe the clinical features in a patient presenting with Allergic Rhinitis | Bedside clinic | Skill assessment |
| EN4.27.4 | Choose the correct investigations in a patient presenting with Allergic Rhinitis | Lecture, DOAP | Viva voce |
| EN4.27.5 | Describe the principles of management of Allergic Rhinitis | Lecture ,Bedside clinic | Written, Viva voce |

EN4.28 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Vasomotor Rhinitis

Domain–K/S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.28.1 | Elicit correct history in patients presenting with Vasomotor Rhinitis | Bedside clinic | Skill assessment |
| EN4.28.2 | Document and present correct history in patients with Vasomotor Rhinitis | Bedside clinic | Skill assessment |
| EN4.28.3 | Describe the clinical features in a patient presenting with Vasomotor Rhinitis | Bedside clinic | Skill assessment |
| EN4.28.4 | Choose the correct investigations in a patient presenting with Vasomotor Rhinitis | Lecture, DOAP | Viva voce |

the correct correct investigations and describe the principles of management of Acute & Chronic Rhinitis

Domain–K/S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|-----------|---|---------------------------|--------------------|
| EN4.29.1 | Elicit correct history in patients presenting with Acute Rhinitis | Bedside clinic | Skill assessment |
| EN4.29.2 | Document and present correct history in patients with Acute Rhinitis | Bedside clinic | Skill assessment |
| EN4.29.3 | Describe the clinical features in a patient presenting with Acute Rhinitis | Bedside clinic | Skill Assessment |
| EN4.29.4 | Choose the correct investigations in a patient presenting with Acute Rhinitis | Lecture, DOAP | Viva voce |
| EN4.29.5 | Describe the principles of management of Acute Rhinitis | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.29.6 | Elicit correct history in patients presenting with Chronic Rhinitis | Bedside clinic | Skill assessment |
| EN4.29.7 | Document and present correct history in patients with Chronic Rhinitis | Bedside clinic | Skill assessment |
| EN4.29.8 | Describe the clinical features in a patient presenting with Chronic Rhinitis | Bedside clinic | Skill assessment |
| EN4.29.9 | Choose the correct investigations in a patient presenting with Chronic Rhinitis | Lecture, DOAP | Viva voce |
| EN4.29.10 | Describe the principles of management of Chronic Rhinitis | Lecture ,Bedside Clinic | Written, Viva voce |

EN4.30 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Epistaxis

Domain–K/S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|-----------------------------------|---------------------------|--------------------|
| EN4.30.1 | Enumerate the causes of Epistaxis | Lecture | Written, Viva voce |

| | | | |
|----------|--|-------------------------|--------------------|
| EN4.30.2 | Elicit correct history in patients presenting with Epistaxis | Bedside clinic | Skill assessment |
| EN4.30.3 | Document and present correct history in patients with Epistaxis | Bedside clinic | Skill assessment |
| EN4.30.4 | Describe the clinical features in a patient presenting with Epistaxis | Bedside clinic | Skill assessment |
| EN4.30.5 | Choose the correct investigations in a patient presenting with Epistaxis | Lecture, DOAP | Viva voce |
| EN4.30.6 | Describe the principles of management of Epistaxis | Lecture ,Bedside Clinic | Written, Viva Voce |

EN4.31 Describe the clinical features, investigations and principles of management of trauma to the Face&Neck

Domain–K/S

Level - KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.31.1 | Describe the clinical features in a patient presenting with trauma to face | Lecture | Written, Viva voce |
| EN4.31.2 | Choose the correct investigations in a patient presenting with trauma to face | Lecture, DOAP | Viva voce |
| EN4.31.3 | Describe the principles of management of trauma to face | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.31.4 | Describe the clinical features in a patient presenting with trauma to neck | Lecture | Written, Viva voce |
| EN4.31.5 | Choose the correct investigations in a patient presenting with trauma to neck | Lecture, DOAP | Viva voce |
| EN4.31.6 | Describe the principles of management of trauma to neck | Lecture ,Bedside clinic | Written, Viva voce |

EN4.32 Describe the clinical features, investigations and principles of management of nasopharyngeal Angiofibroma

Domain–K

Level –KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.32.1 | Describe the clinical features in a patient presenting with nasopharyngeal Angiofibroma | Lecture | Written, Viva voce |
| EN4.32.2 | Choose the correct investigations in a patient presenting with nasopharyngeal Angiofibroma | Lecture, DOAP | Viva voce |
| EN4.32.3 | Describe the principles of management of nasopharyngeal Angiofibroma | Lecture ,Bedside clinic | Written, Viva voce |

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.33.1 | Elicit correct history in patients presenting with Acute Sinusitis | Bedside clinic | Skill assessment |
| EN4.33.2 | Document and present correct history in patients with Acute Sinusitis | Bedside clinic | Skill Assessment |
| EN4.33.3 | Describe the clinical features in a patient presenting with Acute Sinusitis | Bedside clinic | Skill assessment |
| EN4.33.4 | Choose the correct investigations in a patient presenting with Acute Sinusitis | Lecture, DOAP | Viva voce |
| EN4.33.5 | Describe the principles of management of Acute Sinusitis | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.33.6 | Elicit correct history in patients presenting with Chronic Sinusitis | Bedside clinic | Skill assessment |
| EN4.33.7 | Document and present correct history in patients with Chronic Sinusitis | Bedside clinic | Skill assessment |
| EN4.33.8 | Describe the clinical features in a patient presenting with Chronic Sinusitis | Bedside clinic | Skill assessment |

| | | | |
|----------------|--|-------------------------|--------------------|
| EN4.33.9 E | Choose the correct investigations in a patient presenting with Chronic Sinusitis | Lecture, DOAP | Viva voce |
| EN4.33.10 4 | Describe the principles of management of Chronic Sinusitis | Lecture ,Bedside clinic | Written, Viva voce |

33 Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Acute & Chronic Sinusitis

Domain–K/S

Level – SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.35.1 | Describe the clinical features in a patient presenting with Tumors of Nasopharynx | Lecture | Written, Viva voce |
| EN4.35.2 | Choose the correct investigations in a patient presenting with Tumors of Nasopharynx | Lecture, DOAP | Viva voce |
| EN4.35.3 | Describe the principles of management of Tumors of Nasopharynx | Lecture ,Bedside clinic | Written, Viva voce |

EN4.34 Describe the clinical features, investigations and principles of management of Tumors of Maxilla

Domain–K

Level -KH

EN4.35 Describe the clinical features, investigations and principles of management of Tumors of Nasopharynx

Describe the .36 Describe the clinical features, investigations and principles of management of diseases of the Salivary glands

Domain–K

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.36.1 | Describe the clinical features in a patient presenting with Diseases of salivary glands | Lecture | Written, Viva voce |
| EN4.36.2 | Choose the correct investigations in a patient presenting with Diseases of salivary glands | Lecture, DOAP | Viva voce |
| EN4.36.3 | Describe the principles of management of Diseases of salivary glands | Lecture ,Bedside clinic | Written, Viva voce |

EN4.37 Describe the clinical features, investigations and principles of management of Ludwig's angina

Domain–K

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.37.1 | Describe the clinical features in a patient presenting with Ludwig's angina | Lecture | Written, Viva voce |
| EN4.37.2 | Choose the correct investigations for a patient presenting with Ludwig's angina | Lecture, DOAP | Viva voce |

| | | | |
|----------|--|-------------------------|--------------------|
| EN4.37.3 | Describe the principles of management of Ludwig's angina | Lecture ,Bedside clinic | Written, Viva voce |
|----------|--|-------------------------|--------------------|

EN4.38 Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of type of dysphagia
Domain–K/S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.38.1 | Enumerate the causes of Dysphagia | Lecture | Written, Viva voce |
| EN4.38.2 | Elicit correct history in patients presenting with Dysphagia | Bedside clinic | Skill Assessment |
| EN4.38.3 | Document and present correct history in patients with Dysphagia | Bedside clinic | Skill assessment |
| EN4.38.4 | Describe the clinical features in a patient presenting with Dysphagia | Bedside clinic | Skill assessment |
| EN4.38.5 | Choose the correct investigations for a patient presenting with Dysphagia | Lecture, DOAP | Viva voce |
| EN4.38.6 | Describe the principles of management of Dysphagia | Lecture ,Bedside clinic | Written, Viva voce |

EN4.39 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Acute & Chronic Tonsillitis
Domain–K/S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|-----------|--|---------------------------|--------------------|
| EN4.39.1 | Elicit correct history in patients presenting with AcuteTonsillitis | Bedside clinic | Skill assessment |
| EN4.39.2 | Document and present correct history in patients with Acute Tonsillitis | Bedside clinic | Skill assessment |
| EN4.39.3 | Describe the clinical features in a patient presenting with Acute Tonsillitis | Bedside clinic | Skill Assessment |
| EN4.39.4 | Choose the correct investigations in a patient presenting with Acute Tonsillitis | Lecture, DOAP | Viva voce |
| EN4.39.5 | Describe the principles of management of Acute Tonsillitis | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.39.6 | Elicit correct history in patients presenting with Chronic Tonsillitis | Bedside clinic | Skill assessment |
| EN4.39.7 | Document and present correct history in patients with Chronic Tonsillitis | Bedside clinic | Skill assessment |
| EN4.39.8 | Describe the clinical features in a patient presenting with Chronic Tonsillitis | Bedside clinic | Skill assessment |
| EN4.39.9 | Choose the correct investigations in a patient presenting with Chronic Tonsillitis | Lecture, DOAP | Viva voce |
| EN4.39.10 | Describe the principles of management of Chronic Tonsillitis | Lecture ,Bedside clinic | Written, Viva voce |

EN4.40 Observe and describe the indications for and steps involved in a tonsillectomy /
adenoidectomy

Domain–S

Level –KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|--------------------------------|--------------------|
| EN4.40.1 | Enumerate the indications for tonsillectomy | Lecture, Bedside clinic | Written, Viva voce |
| EN4.40.2 | Observe the steps involved in a tonsillectomy | Video demonstration, DOAP (OT) | Viva voce |
| EN4.40.3 | Describe the steps involved in a tonsillectomy | DOAP (OT), Bedside clinic | Viva voce |
| EN4.40.4 | Enumerate the indications for adenoidectomy | Lecture, Bedside clinic | Written, Viva voce |
| EN4.40.5 | Observe the steps involved in an adenoidectomy | Video demonstration, DOAP (OT) | Viva voce |
| EN4.40.6 | Describe the steps involved in an adenoidectomy | DOAP (OT), Bedside clinic | Viva voce |

EN4.41 Describe the clinical features, investigations and principles of management of
Acute & chronic abscesses in relation to Pharynx

Domain–K/S

Level - KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.41.1 | List the abscesses in relation to pharynx | Lecture, Bedside clinic | Written, Viva voce |
| EN4.41.2 | Describe the clinical features of acute abscesses in relation to pharynx | Bedside clinic | Viva voce |
| EN4.41.3 | Choose the correct investigations in a patient presenting with an acute abscess related to the pharynx | DOAP, Bedside clinic | Viva voce |
| EN4.41.4 | Describe the principles of management of a patient presenting with an acute abscess related to the pharynx | Lecture, DOAP | Viva voce |
| EN4.41.5 | Describe the clinical features of chronic abscesses in relation to pharynx | Bedside clinic | Viva voce |
| EN4.41.6 | Choose the correct investigations in a patient presenting with chronic abscess related to the pharynx | DOAP, Bedside clinic | Viva voce |
| EN4.41.7 | Describe the principles of management of a patient presenting with chronic abscess related to the pharynx | Lecture, DOAP | Viva voce |

EN4.42 Elicit, document and present a correct history, demonstrate and describe the
clinical features, choose the correct investigations and describe the principles of
management of hoarseness of voice

Domain–K/S

Level – SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.42.1 | Enumerate the causes of hoarseness of voice | Lecture | Written, Viva voce |
| EN4.42.2 | Elicit correct history in patients presenting with hoarseness of voice | Bedside clinic | Skill Assessment |
| EN4.42.3 | Document and present correct history in patients with hoarseness of voice | Bedside clinic | Skill assessment |
| EN4.42.4 | Describe the clinical features in a patient presenting with hoarseness of voice | Bedside clinic | Skill assessment |
| EN4.42.5 | Choose the correct investigations for a patient presenting with hoarseness of voice | Lecture, DOAP | Viva voce |
| EN4.42.6 | Describe the principles of management of a patient with hoarseness of voice | Lecture, Bedside clinic | Written, Viva voce |

EN4.43 Describe the clinical features, investigations and principles of management of
Acute & Chronic Laryngitis

Domain–K

Level -KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.43.1 | Describe the clinical features in a patient presenting with Acute Laryngitis | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.43.2 | Choose the correct investigations in a patient presenting with Acute Laryngitis | Lecture, DOAP | Viva voce |
| EN4.43.3 | Describe the principles of management of Acute Laryngitis | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.43.4 | Describe the clinical features in a patient presenting with Chronic Laryngitis | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.43.5 | Choose the correct investigations in a patient presenting with Chronic Laryngitis | Lecture, DOAP | Viva voce |
| EN4.43.6 | Describe the principles of management of Chronic Laryngitis | Lecture ,Bedside clinic | Written, Viva voce |

EN4.44 Describe the clinical features, investigations and principles of management of benign lesions of the vocal cord

Domain–K

Level –KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.44.1 | Enumerate the benign lesions of the vocal cord | Lecture ,Bedside Clinic | Written, Viva Voce |
| EN4.44.2 | Describe the clinical features in a patient presenting with benign lesions of the vocal cord | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.44.3 | Choose the correct investigations for a patient presenting with benign lesions of the vocal cord | Lecture, DOAP | Viva voce |
| EN4.44.4 | Describe the principles of management of benign lesions of the vocal cord | Lecture ,Bedside clinic | Written, Viva voce |

EN4.45 Describe the clinical features, investigations and principles of management of Vocal cord palsy

Domain–K

Level –KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.45.1 | Enumerate the causes of Vocal cord palsy | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.45.2 | Describe the clinical features in a patient presenting with Vocal cord palsy | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.45.3 | Choose the correct investigations for a patient presenting with Vocal cord palsy | Lecture, DOAP | Viva voce |
| EN4.45.4 | Describe the principles of management of Vocal cord palsy | Lecture ,Bedside clinic | Written, Viva voce |

EN4.46 Describe the clinical features, investigations and principles of management of Malignancy of the Larynx & Hypopharynx

Domain–K

Level –KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.46.1 | Describe the clinical features in a patient presenting with Malignancy of the Larynx | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.46.2 | Choose the correct investigations for a patient presenting with Malignancy of the Larynx | Lecture, DOAP | Viva voce |
| EN4.46.3 | Describe the principles of management of Malignancy of the Larynx | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.46.4 | Describe the clinical features in a patient presenting with Malignancy of the Hypopharynx | Lecture ,Bedside clinic | Written, Viva voce |

| | | | |
|----------|---|-------------------------|--------------------|
| EN4.46.4 | Choose the correct investigations for a patient presenting with Malignancy of the Hypopharynx | Lecture, DOAP | Viva voce |
| EN4.46.4 | Describe the principles of management of Malignancy of the Hypopharynx | Lecture ,Bedside clinic | Written, Viva voce |

EN4.47 Describe the clinical features, investigations and principles of management of Stridor Domain–K

Level –KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.47.1 | Enumerate the causes of Stridor | Lecture ,Bedside Clinic | Written, Viva Voce |
| EN4.47.2 | Describe the clinical features in a patient presenting with Stridor | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.47.3 | Choose the correct investigations for a patient presenting with Stridor | Lecture, DOAP | Viva voce |
| EN4.47.4 | Describe the principles of management of Stridor | Lecture ,Bedside clinic | Written, Viva voce |

EN4.48 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Airway Emergencies

Domain–S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---------------------------|--------------------|
| EN4.48.1 | Enumerate the causes of Airway emergencies | Bedside clinic, DOAPVi | Va voce |
| EN4.48.2 | Elicit correct history in patients presenting with Airway emergencies | Bedside clinic | Skill Assessment |
| EN4.48.3 | Document and present correct history in patients with Airway emergencies | Bedside clinic | Skill assessment |
| EN4.48.4 | Describe the clinical features in a patient presenting with Airway emergencies | Bedside clinic | Skill assessment |
| EN4.48.5 | Choose the correct investigations for a patient presenting with Airway emergencies | DOAP | Viva voce |
| EN4.48.6 | Describe the principles of management of Airway emergencies | Bedside clinic | Viva voce |

EN4.49 Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of foreign bodies in the air & food passages

Domain–S

Level - SH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.49.1 | Elicit correct history in patients presenting with foreign bodies in the air passages | Bedside clinic | Skill assessment |
| EN4.49.2 | Document and present correct history in patients presenting with foreign bodies in the air passages | Bedside clinic | Skill assessment |
| EN4.49.3 | Describe the clinical features in a patient presenting with foreign bodies in the air passages | Bedside clinic | Skill assessment |
| EN4.49.4 | Choose the correct investigations in a patient presenting with foreign bodies in the air passages | DOAP | Viva voce |
| EN4.49.5 | Describe the principles of management of foreign bodies in the air passages | Bedside clinic | Viva voce |
| EN4.49.6 | Elicit correct history in patients presenting with foreign bodies in the food passages | Bedside clinic | Skill assessment |

| | | | |
|-----------|--|----------------|------------------|
| EN4.49.7 | Document and present correct history in patients presenting with foreign bodies in the food passages | Bedside clinic | Skill assessment |
| EN4.49.8 | Describe the clinical features in a patient presenting with foreign bodies in the food passages | Bedside clinic | Skill assessment |
| EN4.49.9 | Choose the correct investigations in a patient presenting with foreign bodies in the food passages | DOAP | Viva voce |
| EN4.49.10 | Describe the principles of management of foreign bodies in the food passages | Bedside clinic | Viva voce |

EN4.50 Observe and describe the indications for and steps involved in tracheostomy Domain–S

Level –KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---|--------------------|
| EN4.50.1 | Enumerate the indications for Tracheostomy | Bedside clinics | Viva voce |
| EN4.50.3 | Observe steps involved in Tracheostomy | DOAP - Clinical (OT), video demonstration | Viva voce |
| EN4.50.3 | Describe the steps of Tracheostomy | DOAP - video demonstration | Viva voce |

EN4.51 Observe and describe the care of the patient with a tracheostomy Domain–S

Level –KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|--|---|--------------------|
| EN4.51.1 | Observe steps involved in care of the patient with a tracheostomy | DOAP - Clinical (OT), video demonstration | Viva voce |
| EN4.51.2 | Describe the steps involved in care of the patient with a tracheostomy | DOAP - video demonstration | Viva voce |

EN4.52 Describe the Clinical features, Investigations and principles of management of diseases of Oesophagus Domain–K

Level –KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.52.1 | Enumerate the Diseases of Oesophagus | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.52.2 | Describe the clinical features in a patient presenting with Disease of Oesophagus | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.52.3 | Choose the correct investigations for a patient presenting with Disease of Oesophagus | Lecture, DOAP | Viva voce |
| EN4.52.4 | Describe the principles of management of Diseases of Oesophagus | Lecture ,Bedside clinic | Written, Viva voce |

EN4.53 Describe the clinical features, investigations and principles of management of HIV manifestations of the ENT (vertical integration- General Medicine) Domain–K

Level –KH

| Number | Specific Learning objective | Teaching-Learning methods | Assessment methods |
|----------|---|---------------------------|--------------------|
| EN4.53.1 | Enumerate the HIV manifestations of the ENTLe | ecture ,Bedside clinic | Written, Viva voce |
| EN4.53.2 | Describe the clinical features in a patient presenting with HIV manifestations of the ENT | Lecture ,Bedside clinic | Written, Viva voce |
| EN4.53.3 | Choose the correct investigations for a patient presenting with HIV manifestations of the ENT | Lecture, DOAP | Viva voce |

| | | | |
|----------|--|-------------------------|--------------------|
| EN4.53.4 | Describe the principles of management of HIV manifestations of the ENT | Lecture ,Bedside clinic | Written, Viva voce |
|----------|--|-------------------------|--------------------|

Practical syllabus:

History taking

General Physical examination

Examination of Ear, Nose , Throat (Local examination)

Clinical cases of ENT

Nose :

- DNS
- Sinusitis
- Polyps : AC polyp , Ethmoidal polyp
- Allergic Rhinitis

Throat:

- Chronic/ Acute Tonsillitis
- Adenoiditis
- Adenotonsillitis

Ear:

- CSOM- Tubotympanic type
- CSOM- Aticoantral type

X-rays

Instruments

Audiology

Osteology

3. SKILL CERTIFICATION

| S.NO | Competency | Date of completion | Attempt at activity F/R/Re* | Rating B/M/E* | Decision of faculty C/R/Re** | Signature of faculty & Date | Feedback received |
|------|----------------------------|--------------------|--------------------------------|------------------|---------------------------------|-----------------------------|-------------------|
| 1. | Anterior nasal packing (D) | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 2. | Otoscopy (I) | | | | | | |
| | | | | | | | |

*First or only (F), Repeat (R), Remedial (Re)

**Below (B) expectations, Meets(M) expectations, exceeds (E) expectations, OR Numerical score

***Completed (C), Repeat (R), Remedial (Re)

4. **INTEGRATION:**

| Sl. No | Integrated Teaching | Integrated with (Department) |
|--------|--|------------------------------|
| 1 | Describe the (1) morphology, relations, blood supply and applied anatomy of palatine tonsil and (2) composition of soft palate | Human Anatomy |
| 2 | Describe the components and functions of Waldeyer's lymphatic ring | Human Anatomy |
| 3 | Describe the boundaries and clinical significance of pyriform fossa | Human Anatomy |
| 4 | Describe the anatomical basis of tonsillitis, tonsillectomy, adenoids and peri-tonsillar abscess | Human Anatomy |
| 5 | Describe the clinical significance of Killian's dehiscence | Human Anatomy |
| 6 | Describe & demonstrate features of nasal septum, lateral wall of nose, their blood supply and nerve supply | Human Anatomy |
| 7 | Describe location and functional anatomy of paranasal sinuses | Human Anatomy |
| 8 | Describe anatomical basis of sinusitis & maxillary sinus tumours | Human Anatomy |
| 9 | Describe the morphology, identify structure of the wall, nerve supply, blood supply and actions of intrinsic and extrinsic muscles of the larynx | Human Anatomy |
| 10 | Describe the anatomical aspects of laryngitis | Human Anatomy |
| 11 | Describe anatomical basis of recurrent laryngeal nerve injury | Human Anatomy |
| 12 | Explain the anatomical basis of hypoglossal nerve palsy | Human Anatomy |
| 13 | Describe & identify the parts, blood supply and nerve supply of external ear | Human Anatomy |
| 14 | Describe & demonstrate the boundaries, contents, relations and functional anatomy of middle ear and auditory tube | Human Anatomy |
| 15 | Describe the features of internal ear | Human Anatomy |
| 16 | Explain anatomical basis of otitis externa and otitis media | Human Anatomy |
| 17 | Explain anatomical basis of myringotomy | Human Anatomy |
| 18 | Describe and discuss perception of smell and taste sensation | Physiology |
| 19 | Describe and discuss functional anatomy of ear and auditory pathways & physiology of hearing | Physiology |
| 20 | Describe and discuss pathophysiology of deafness. Describe hearing Tests | Physiology |
| 21 | Demonstrate (i) hearing (ii) testing for smell and (iii) taste sensation in volunteer/ simulated environment | Physiology |
| 22 | Describe the health hazards of air, water, noise, radiation and pollution. | Community Medicine |

| | | |
|----|--|------------------|
| 23 | Counsel patients to risks of oral cancer with respect to tobacco, smoking, alcohol and other causative factors | Dentistry |
| 24 | Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly | General Medicine |
| 25 | Discuss the risk factors, clinical features, Diagnosis and management of Kerosene ingestion | Paediatrics |
| 26 | Discuss the etio-pathogenesis, clinical features and management of Naso pharyngitis | Paediatrics |
| 27 | Discuss the etio-pathogenesis of PharyngoTonsillitis | Paediatrics |
| 28 | Discuss the clinical features and management of Pharyngo Tonsillitis | Paediatrics |
| 29 | Discuss the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM) | Paediatrics |
| 30 | Discuss the etio-pathogenesis, clinical features and management of Epiglottitis | Paediatrics |
| 31 | Discuss the etio-pathogenesis, clinical features and management of Acute laryngo-trachea-bronchitis | Paediatrics |
| 32 | Discuss the etiology, clinical features and management of Stridor in Children | Paediatrics |
| 33 | Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children | Paediatrics |
| 34 | Elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor | Paediatrics |
| 35 | Perform otoscopic examination of the ear | Paediatrics |
| 36 | Perform throat examination using tongue depressor | Paediatrics |
| 37 | Perform examination of the nose | Paediatrics |
| 38 | Interpret X-ray of the paranasal sinuses and mastoid; and /or use written report in case of management. Interpret CXR in foreign body aspiration and lower respiratory tract infection, understand the significance of thymic shadow in pediatric chest X-rays | Paediatrics |
| 39 | Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children | Paediatrics |
| 40 | Describe the etio-pathogenesis, clinical features and management of Atopic dermatitis in children | Paediatrics |
| 41 | Describe etiopathogenesis of oral cancer, symptoms and signs of pharyngeal cancer. Enumerate the appropriate investigations and discuss the principles of treatment. | General Surgery |

5. AETCOM COMPETENCIES

| | | |
|-----|------|---|
| ENT | 3.3A | Demonstrate ability to communicate to patients in a patient, respectful, non threatening, non judgmental and empathetic manner |
| | 3.3B | Identify, discuss and defend, medico –legal, socio cultural and ethical issue as they pertain to consent for surgical procedures. |

ATTEDANCE :

The learner must have 75% attendance in theory and 80% in Practical in each phase of instruction in that subject.

6.MARKS DISTRIBUTION OF THEORY, PRACTICAL, ECE, SGL, SDL ETC

| Theory | Clinical examination |
|----------------------------|---|
| 100 | 1. 1 Long Case = 25 M 2. 2 Short cases – (2 x 15) = 30 M 3. 5 Stations of OSCE – (2 sets of 5 stations with one blank station) – (5 x 5) = 25 M 4. Viva = 10 M 5. Drugs & Instruments = 10 M TOTAL-100 MARKS |
| Long essay 2X15M=30M | |
| Short essay 10X5M=50M | |
| MCQ's 20X1M=20M | |
| | |

6. EXAMINATION

a. Assessment method of theory

1st PCT practical/First ward leaving examination-100
2nd PCT practical / Second ward leaving examination-100
Prelims practical-100
Home assignment -10
Continuous class test –LMS-25
Seminar -10
Museum study -10
Library assignement -10
Attendance -10
Total -375

b. Assessment method of practical

1st PCT practical/First ward leaving examination-100
2nd PCT practical / Second ward leaving examination-100
Prelims practical-100
Certificate skill based competencies-100
AETCOM-30
SVL lab activity-50
Research-20
Journal-40
Attendance-10
Total-500

7. RECOMMENDED BOOKS

- a. Text Book Of Ent, Pl Dhingra
- b. Text Book Of Ent, Mohan Bansal

- c. Text Book Of Ent, Bhargava
- d. Text book of Otorhinolaryngology Head and Neck Surgery – Author-Suresh Pillai Kailesh pujary

8. REFERENCES BOOKS

- a. Text book of SCOTT brown's Otorhinolaryngology Head & Neck Surgery
- b. Text book of Cummings Otorhinolaryngology Head & Neck Surgery

9. DIVISION OF SYLLABUS ALONG WITH MARKS FOR MBBS

We have only one paper. **Blue Print**

| Sl.No | Topic | Long essay | Short notes | MCQs | Maximum marks | Minimum Marks |
|-----------|--|------------|-------------|------|---------------|---------------|
| 1. | EAR | | | | | |
| | Anatomy and physiology of ear | | ✓ | ✓ | 10 | 03 |
| | Audiology and assessment of hearing | | ✓ | ✓ | 10 | 03 |
| | Hearing loss | ✓ | ✓ | ✓ | 15 | 03 |
| | Disorder of Eustachian tube | | ✓ | ✓ | 10 | 03 |
| | Disease of external ear | | ✓ | ✓ | 10 | 03 |
| | Disease of middle ear | ✓ | ✓ | ✓ | 15 | 03 |
| | Disease of inner ear | ✓ | ✓ | ✓ | 15 | 03 |
| | Tumours of middle ear | ✓ | ✓ | ✓ | 15 | 03 |
| | Facial nerve and its disorders | ✓ | ✓ | ✓ | 15 | 03 |
| | Miscellaneous | | ✓ | ✓ | 10 | 03 |
| 2. | NOSE AND PARA NASAL SINUS | | | | | |
| | Anatomy and physiology of nose | ✓ | ✓ | ✓ | 15 | 03 |
| | Disease of external nose | | ✓ | ✓ | 10 | 03 |
| | Epistaxis | ✓ | ✓ | ✓ | 15 | 03 |
| | Disease of Nasal septum | ✓ | ✓ | ✓ | 15 | 03 |
| | Acute and chronic inflammatory condition of nose | | ✓ | ✓ | 10 | 03 |
| | Allergic Rhinitis | ✓ | ✓ | ✓ | 15 | 03 |
| | Sinusitis | ✓ | ✓ | ✓ | 15 | 03 |
| | Nasal polyposis | ✓ | ✓ | ✓ | 15 | 03 |
| | Maxillofacial trauma | ✓ | ✓ | ✓ | 15 | 03 |

| | | | | | | |
|-----------|--|---|---|---|----|----|
| | Benign and malignant tumours of nose and PNS | ✓ | ✓ | ✓ | 15 | 03 |
| | Sleep Apnea syndrome | ✓ | ✓ | ✓ | 15 | 03 |
| | Miscellaneous | | ✓ | ✓ | 10 | 03 |
| 3. | PHARYNX AND ESOPHAGUS | | | | | |
| | Anatomy and physiology of pharynx | | ✓ | ✓ | 10 | 03 |
| | Inflammatory condition of oral cavity and pharynx | | ✓ | ✓ | 10 | 03 |
| | Deep neck space infections | ✓ | ✓ | ✓ | 15 | 03 |
| | Neoplasms of the oral cavity /oropharynx/ hypopharynx | ✓ | ✓ | ✓ | 15 | 03 |
| | Anatomy of Esophagus | | ✓ | ✓ | 10 | 03 |
| | Congenital/ traumatic/ Neurological condition of esophagus | | ✓ | ✓ | 10 | 03 |
| | Foreign body upper digestive tract | | ✓ | ✓ | 10 | 03 |
| | Neoplasms of the esophagus | | ✓ | ✓ | 10 | 03 |
| | Dysphagia | ✓ | ✓ | ✓ | 15 | 03 |
| 4. | LARYNX AND TRACHEA | | | | | |
| | Anatomy and physiology of larynx | ✓ | ✓ | ✓ | 15 | 03 |
| | Inflammatory condition of larynx | ✓ | ✓ | ✓ | 15 | 03 |
| | Laryngotracheal trauma | ✓ | ✓ | ✓ | 15 | 03 |
| | Stridor | ✓ | ✓ | ✓ | 15 | 03 |
| | Tracheostomy | ✓ | ✓ | ✓ | 15 | 03 |
| | Foreign body in the airway | | ✓ | ✓ | 10 | 03 |
| | Neurological condition of larynx | ✓ | ✓ | ✓ | 15 | 03 |
| | Neoplasms of larynx | ✓ | ✓ | ✓ | 15 | 03 |
| | Miscellaneous | | ✓ | ✓ | 10 | 03 |
| 5. | HEAD AND NECK | | | | | |
| | Anatomy of Neck | | ✓ | ✓ | 10 | 03 |
| | Classification of Neck Swelling | | ✓ | ✓ | 10 | 03 |
| | Cystic and solid swelling of neck | | ✓ | ✓ | 10 | 03 |
| | Thyroid neoplasms | ✓ | ✓ | ✓ | 15 | 03 |
| | Disease of salivary gland | ✓ | ✓ | ✓ | 15 | 03 |
| | Parapharyngeal tumors | | ✓ | ✓ | 10 | 03 |
| | Miscellaneous | | ✓ | ✓ | 10 | 03 |
| 06 | MISCELLANEOUS | ✓ | ✓ | ✓ | 15 | 03 |
| 07 | AETCOM | | | ✓ | 05 | 05 |

10. MODEL QUESTION PAPERS

I. Write an Essay

2X15=30M

1. A 40 years old male patient came to ENT OPD with complaints of vertigo, Hearing loss, tinnitus, diarrhoea, vomiting (2+3+5+5)

- A. What is your probable diagnosis
- B. Differential diagnosis
- C. Investigations
- D. Treatment

2. A 14 years old male came to ENT OPD with complaints of unilateral Nasal obstruction, recurrent attacks of bleeding from nose which stops on its own. on anterior Rhinoscopy examination- normal (2+3+5+5)

- A. What is your probable diagnosis
- B. Differential diagnosis
- C. investigations
- D. Treatment

II. Write a short notes

10X5=50 Marks

- 1. Cochlear implant
- 2. Rhinosporidiosis
- 3. Draw a Neat labelled diagram of bed of tonsil
- 4. Management of otosclerosis
- 5. Management of airway foreign bodies
- 6. Atrophic rhinitis
- 7. BERA- Brainstem Evoked Response Audiometry
- 8. Ludwig's angina
- 9. Describe briefly on ability to communicate to patients, Respectful, non-threatening, non-judgmental and empathetic manner.
- 10. Well labelled diagram of facial Nerve course and its topodiagnostic tests

III. Write ultra-short notes

20X1=20 Marks

- 1. Nerve Supply of the Tympanic membrane is by
 - a. Auriculotemporal nerve
 - b. Auricular branch of vagus
 - c. Occipital nerve
 - d. Great auricular nerve
 - e. Glossopharyngeal nerve
- 2. A young man present following an accident with loss of hearing in the right ear. On otoscopic examination, Tympanic membrane was normal. Pure tone audiogram shows an air bone gap of 55db in the right ear with normal cochlear reserve. which of the following will be the likely tympanometry findings
 - a. AS
 - b. Ad
 - c. B
 - d. C
- 3. A Patient has come with severe earache; O/E has furuncle ear – external otitis. What is the best treatment
 - a. Ear packing with 10% Ichthammol in glycerine wick
 - b. Antibiotics and rest
 - c. Antibiotics and drainage
 - d. Analgesic
- 4. Facial nerve palsy is seen in

- a. Seborrheic otitis externa
 - b. Otomycosis
 - c. Malignant otitis externa
 - d. Eczematous otitis externa
5. A 7 year old child presenting with acute otitis media does not respond to ampicillin. The examination reveals full and bulging tympanic membrane. The treatment of choice is
- a. Systemic steroid
 - b. Ciprofloxacin
 - c. Myringotomy
 - d. Cortical Mastoidectomy
6. Cauliflower ear is
- a. Keloid
 - b. Perichondritis in boxers
 - c. Squamous cell carcinoma
 - d. Anaplastic carcinoma
7. In otosclerosis carharts notch dips at
- a. 1000 Hz in air conduction
 - b. 1000 Hz in bone conduction
 - c. 2000 Hz in air conduction
 - d. 2000 Hz in bone conduction
8. A patient present with bleeding from the ear, tinnitus and progressive deafness. On examination there is a red swelling behind the intact tympanic membrane that blanches on pressure with pneumatic speculum which of the following is not a part of the management in this patient
- a. Radiotherapy
 - b. Surgery
 - c. Interferons
 - d. Preoperative embolization
9. Blood supply of facial nerve
- a. Ascending palatine artery
 - b. Facial artery
 - c. Lingual artery
 - d. Ascending pharyngeal artery
 - e. Stylomastoid artery
10. In a patient with acoustic neuroma all are seen except
- a. Unilateral deafness
 - b. Reduced corneal reflex
 - c. Cerebellar signs
 - d. Acute episode of vertigo
11. Characteristic of Kartagener's syndrome
- a. Absence of cilia
 - b. Ultrastructural abnormality of the cilia
 - c. Cilia underdeveloped
 - d. None
12. Onodi cell and Haller cell are related to
- a. Optic nerve and orbital floor respectively
 - b. Optic nerve and frontal duct, respectively
 - c. Nasolacrimal duct and orbital floor, respectively
 - d. Orbital floor and internal carotid artery, respectively
13. Cause of nasal obstruction in atrophic Rhinitis
- a. Crusting
 - b. Polyp
 - c. Secretions
 - d. DNS
14. About nasal syphilis true all except

- a. Perforation occurs in the septum
 - b. Saddle nose deformity can occur
 - c. In newborn, it present as snuffles
 - d. Atrophic Rhinitis is a complication
 - e. Secondary syphilis is the commonest association
15. In Caldwell Luc's surgery, the naso antral window is made through
- a. Superior meatus
 - b. Middle meatus
 - c. Inferior meatus
 - d. None of these
16. CSF Rhinorrhea is diagnosed by
- a. Beta 2 microglobulin
 - b. Beta 2 transferrin
 - c. Thyroglobulin
 - d. Transthyretin
17. Tear drop sign is seen in
- a. Fracture floor of orbit
 - b. Fracture lateral wall of nose
 - c. Le-Frte fracture
 - d. Fracture zygomatatic arch
18. All predispose to oral cancer except
- a. Erythroplakia
 - b. Leukoplakia
 - c. Submucous fibrosis
 - d. Lichen planus
 - e. Keratosis pharyngia
19. Bronchoscopy visualised all except
- a. Trachea
 - b. Vocal cords
 - c. First segmental subdivision of bronchi
 - d. Subcarinal Lymph nodes
20. Hypernasality with stridor is seen in
- a. Unilateral abductor palsy
 - b. Bilateral abductor palsy
 - c. Laryngomalacia
 - d. None

11. Theory and practical assessment marks as per table provided by NMC

a. Assessment method of theory

| S. N O | Roll nO | Name of the student | 1 st PCT practical /First ward leaving examination | 2 nd PCT practical / Second ward leaving examination | Prelims practical | Home assignment | Continuous class test (LMS) | Se min ar | Museu m study | Llibrar y assignment | Atte ndan ce theor y | Tot al |
|--------|---------|---------------------|---|---|-------------------|-----------------|------------------------------|------------------------|---------------|----------------------|----------------------|--------|
| | | | | | | | | Self Directed learning | | | | |
| | | | 100 | 100 | 100 | 10 | 25 | 10 | 10 | 10 | 10 | 375 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

b. Assessment method of practical

| | | | Formative assessment | | | Continuous internal assessment | | | | | | |
|-------|----------|-----------|---|---|-------------------|--------------------------------------|----------|------------------|-----------|-----------|---------------|---------|
| | | | | | | Long book (150) | | | | | | |
| S.N o | Roll .No | Stu den t | 1 st PCT practical/ First ward leaving examination | 2 nd PCT practical / Second ward leaving examination | Prelims practical | Certificate skill based competencies | AET CO M | SVL lab activity | Resea rch | Jou rna l | Att end anc e | T ot al |
| | | | 100 | 100 | 100 | 60 | 30 | 50 | 20 | 40 | 10 | 500 |

Department of Ophthalmology

A) COMPETENCIES:

STUDENT MUST DEMONSTRATE:

- Knowledge of common eye problems in the community.
- Recognize, diagnose and manage common eye problems and identify indications for referral.
- Ability to recognise visual impairment and blindness in the community and implement national programmes as applicable in the primary care setting.

B. BROAD SUBJECT SPECIFIC OBJECTIVE:

Knowledge: At the end of the course, student shall have the knowledge of:

- Common problems affecting the eye.
- Principles of management of major ophthalmic emergencies.
- Main systemic disease affecting the eye.
- Effects of local and systemic diseases on patient's vision and the necessary action required minimizing the sequelae of such diseases.
- Adverse drug reaction with special reference to ophthalmic manifestations.
- Magnitude of blindness in India and its main causes.
- National programme for control of blindness and its implementation at various levels.
- Eye care education for prevention of eye problems.
- Role of primary health centre in organization of eye camps.
- Organization of primary health care and the functioning of the ophthalmic assistant.
- Integration of the national programme for control of blindness with the other national health programmes.
- Eye bank organization.

C. SKILLS:

- Elicit a history pertinent to general health and ocular status.
- Assist in diagnostic procedures such as visual acuity testing, examination of eye, Schiotz tonometry, Staining of Corneal pathology, confrontation, perimetry, Subjective refraction including correction of Presbyopia and aphakia, direct ophthalmoscopy and conjunctival smear examination and Cover test.
- Diagnose and treat common problems affecting the eye.
- Interpret ophthalmic signs in relation to common systemic disorders.
- Assist/observe therapeutic procedures such as Subconjunctival injection, corneal conjunctival foreign body removal, carbolic cautery for corneal ulcers, Nasolacrimal duct syringing and tarsorrhaphy.
- Provide first aid in major ophthalmic emergencies.
- Assist to organize community surveys for visual check-up.
- Assist to organize primary eye care service through primary health centres.
- Use effective means of communication with the public and individual to motivate for surgery in cataract and for eye donation.

- Establish rapport with his / her seniors, colleagues and paramedical workers, so as to effectively function as a member of the eye care team.

D. INTEGRATION:

The teaching should be aligned and integrated horizontally and vertically in order to allow the student to understand the structural basis of ophthalmologic problems, their management and correlation with function, rehabilitation and quality of life.

| | FINAL YEAR | LECTURES | SGL | SDL | TOTAL (HOURS) |
|----------------------|-------------------|-----------------|------------|------------|-----------------------|
| OPHTHALMOLOGY | PART -1 | 15 | 20 | 10 | 45 |
| | PART - 2 | 15 | 25 | 15 | 55 |

3rd MBBS Part - I

SMALL GROUP DISCUSSION TEACHING SCHEDULE PART - 1

| S.No | Name of topic and competencies covered | Teaching Method lectures /SGL | Total classes: lectures /SGL (Allotted) | Teacher's name |
|------|--|----------------------------------|---|----------------|
| 1 | ANATOMY AND PHYSIOLOGY OF EYE AND VISION AN 41.1, AN 41.2, AN 41.3, AN 31.3, OP 1.1, PY 10.17 | | 05 | |
| | AN41.1: Describe and demonstrate parts and layers of eyeball | 1 lectures | | |
| | AN41.2: Describe the anatomical aspects of central retinal artery occlusion, cataract, glaucoma | 1 lectures | | |
| | AN41.3: Describe the position, nerve supply and actions of intraocular muscles | 1SGL | | |
| | AN31.3: Describe anatomical basis of Horner's syndrome | 1SGL | | |
| | OP1.1: Describe the physiology of | | | |

| | | | | |
|------|--|-----------------|----------------------|----------------|
| | vision (including brief discussion on anatomy of eye) | | | |
| | PY10.17: Describe and discuss functional anatomy of eye, physiology of image formation, physiology of vision including colour vision, refractive errors, colour blindness, physiology of pupil and light reflex | 1SGL | | |
| 2. | OPTICS AND REFRACTION PY 10.17, OP 1.2, OP 1.4 | | 07 | |
| | PY 10.17: Describe and discuss functional anatomy of eye, physiology of image formation, physiology of vision including colour vision, Refractive errors, colour blindness, Physiology of pupil and light reflex | 3 lectures | | |
| | OP 1.4: Enumerate the indications and describe the principles of refractive surgeries | 2 SGL | | |
| | OP1.2: Define, classify and describe the types and methods of correcting refractive errors | 2 SGL | | |
| | | | | |
| 3. | DISEASES OF CONJUNCTIVA OP 3.3, OP 3.4, OP 3.5, OP 3.6, OP 3.7 | | 07 | |
| | OP 3.3: Describe the etiology, pathophysiology, ocular features, differential diagnosis, complications. and management of various causes of conjunctivitis | 3 SGL | | |
| | OP 3.4: Describe the etiology, pathophysiology, ocular features, differential diagnosis, complications and management of trachoma | 1 lectures | | |
| | OP 3.5: Describe the etiology, pathophysiology, ocular features, differential diagnosis, complications and management of vernal catarrh | 1 lectures | | |
| | | | | |
| S.No | Name of topic and competencies covered | Teaching Method | Total classes: T+SGD | Teacher's name |

| | | lectures /SGL | (Allotted) | |
|---|---|---------------|------------|--|
| 4 | DISEASES OF CORNEA AND SCLERA OP 4.1, OP 4.2, OP 4.3, OP 4.6, OP 5.1, OP 5.2 | | 07 | |
| | OP 4.1: Enumerate, describe and discuss the types and causes of corneal ulceration | 1 SGL | | |
| | OP 4.2: Enumerate and discuss the differential diagnosis of infective keratitis | 2 SGL | | |
| | | | | |
| 6 | DISEASES OF CRYSTALLINE LENS AN 41.2, OP 7.1, OP 7.2, OP 7.4, IM 24.15 | | 08 | |
| | AN 41.2: Describe the anatomical aspects of cataract, glaucoma and central retinal artery occlusion OP 7.1: Describe the surgical anatomy and the metabolism of the lens | 1 SGL | | |
| | OP 7.2: Describe and discuss the etiopathogenesis, stages of maturation and 3T complications of cataract | 3 lectures | | |
| | OP 7.4: Enumerate the types of cataract surgery and describe the steps, intraoperative and postoperative complications of extracapsular cataract extraction surgery | 3 SGL | | |
| | IM 24.15: Describe and discuss the etiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilisation, management and rehabilitation of vision and visual loss in the elderly 14. COMMUNITY OPHTHALMOLOGY BLINDNESS: MAGNITUDE, CAUSES AND PREVENTION; NATIONAL AND GLOBAL PERSPECTIVE, NPCB AND VI, CORNEAL BLINDNESS AND EYE BANKING OP 9.4, OP 4.5, OP 4.9 | 1 SGL | | |
| | OP 9.4: Enumerate, describe and discuss the causes of avoidable | 3 SGL | | |

| | | | | |
|--|--|------------|--|--|
| | blindness and the National Programmes for Control of Blindness (including vision 2020) | | | |
| | OP 4.5: Enumerate the causes of corneal blindness | 1 lectures | | |
| | OP 4.9: Describe and discuss the importance and protocols involved in eye donation and eye banking | 1 lectures | | |

SUGGESTED TOPICS FOR SELF DIRECTED LEARNING (SDL) FOR PART – 1

| DAY | DATE | SDL NO. | COMPETENCY | TOPIC OF ACTIVITY |
|-----|------|---------|--|---|
| 1 | | SDL 1 | OP 3.3: Describe the etiology, pathophysiology, ocular features, differential diagnosis, complications. and management of various causes of conjunctivitis | Discuss various types of conjunctivitis |
| 2 | | SDL 2 | OP1.4: Enumerate the indications and describe the principles of refractive surgery | |
| 3 | | SDL 3 | OP 3.6: Describe the etiology, pathophysiology, ocular features, differential diagnosis, complications and management of pterygium | |
| 4 | | SDL 4 | OP 3.7: Describe the etiology, pathophysiology, ocular features, differential diagnosis, complications and management of symblepharon | |
| 5 | | SDL 5 | OP 4.1: Enumerate, describe and discuss the types and causes of corneal ulceration | Discuss bacterial, viral, fungal and corneal ulcers |
| 6 | | SDL 6 | OP 4.3: Enumerate the causes of corneal edema | |
| 7 | | SDL 7 | OP 4.6: Enumerate the indications and the types of | |

| | | | | |
|----|--|--------|---|---|
| | | | keratoplasty | |
| 8 | | SDL 8 | OP 7.2: Describe and discuss the etiopathogenesis, stages of maturation and 3T complications of cataract | Describe etiology, clinical features and management of acquired cataract |
| 9 | | SDL 9 | OP 7.4: Enumerate the types of cataract surgery and describe the steps, intraoperative and postoperative complications of extracapsular cataract extraction surgery | Describe etiology, clinical features and management of acquired cataract |
| 10 | | SDL 10 | OP 9.4: Enumerate, describe and discuss the causes of avoidable blindness and the National Programmes for Control of Blindness (including vision 2020) | Describe prevalence and causes of blindness as per latest survey in India. Discuss vision 2020 strategy 2021-2026 |

Integration

| |
|---|
| Integration- Physiology & Pharmacology |
|---|

| Integration – Anatomy | | | | | | |
|------------------------------|--|---|---------|---------|----------------------|-----------|
| AN30.5 | Explain effect of pituitary tumours on visual pathway | 1.Describe the visual field changes in pituitary tumors 2.Discuss the anatomical basis of VF changes in pituitary lesions | Lecture | Part -1 | MCQs/SAQ / Viva voce | Essay/SAQ |
| AN31.3 | Describe anatomical basis of Horner's syndrome | 1.What is Horner's syndrome? 2.Differentiate acquired from congenital HS 3.Describe the anatomical basis for HS due to various causes | Lecture | Part -1 | MCQs/SAQ / Viva voce | Essay/SAQ |
| AN31.5 | Explain the anatomical basis of oculomotor, trochlear and abducent palsy | 1.Describe the anatomy of the 3 rd ,4 th and 6 th cranial nerves 2.Enumerate the causes of 3 rd ,4 th and 6 th cranial nerve palsies | Lecture | Part -1 | MCQs/SAQ / Viva voce | Essay/SAQ |
| AN41.1 | Describe & demonstrate parts and layers of eyeball | | Lecture | Part -1 | MCQs/SAQ / Viva voce | Essay/SAQ |

| | | | | |
|--|---|-------------|----|--|
| | DISEASES OF SCLERA | | | |
| | OP 5.1: Define, enumerate and describe the etiology associated systemic conditions, clinical features, complications, indications for referral and management of episcleritis. | 1L lectures | | |
| | OP 5.2: Define, enumerate and describe the etiology associated systemic conditions, clinical features, complications, indications for referral and management of episcleritis. | 1L lectures | | |
| | DISEASES OF EYELIDS AND ORBIT OP 2.1, OP 2.3, OP 3.7, OP 4.7, OP 2.4, OP 2.5, OP 2.6, OP 2.7, OP 2.8 | | 08 | |
| | OP 2.1: Enumerate the causes, describe and discuss the etiology, clinical presentations and diagnostic features of common conditions of the lid and adnexa including Hordeolum externum/internum, blepharitis, preseptal cellulitis, dacryocystitis, hemangioma, dermoid, ptosis, entropion, lid lag, lagophthalmos | 2L lectures | | |
| | OP 2.3: Demonstrate under supervision clinical procedures performed in the lid including: Bell's phenomenon, assessment of entropion/ectropion, perform the regurgitation test of lacrimal sac, massage technique in congenital dacryocystitis, and trichiatic cilia removal by epilation | 1 SGL | | |
| | OP 3.7: Describe the etiology, pathophysiology, ocular features, differential diagnosis, complications and management of symblepharon OP 4.7: Enumerate the indications and describe the methods of tarsorrhaphy | 1 SGL | | |
| | OP 2.4: Describe the etiology, clinical presentation. Discuss the complications and management of orbital cellulitis OP 2.5: Describe the clinical features on ocular examination and management of a patient with cavernous sinus thrombosis | 1 SGL | | |
| | OP 2.6: Enumerate the causes and | 1 SGL | | |

| | | | | |
|----|---|------------|----|--|
| | describe the differentiating features, and clinical features and management of proptosis | | | |
| | OP 2.7: Classify the various types of orbital tumours, Differentiate the symptoms and signs of the presentation of various types of ocular tumors | 1 SGL | | |
| | OP 2.8: List the investigations helpful in diagnosis of orbital tumors. Enumerate the indications for appropriate referral | 1 SGL | | |
| 7 | GLAUCOMA AN 41.2, OP 6.5, OP 6.7, OP 6.9 | | 07 | |
| | AN 41.2: Describe the anatomical aspects of cataract, glaucoma and central retinal artery occlusion | 1 SGL | | |
| | OP 6.7: Enumerate and discuss the etiology, the clinical distinguishing features of various glaucomas associated with shallow and deep anterior chamber. Choose appropriate investigations and treatment for patients with above conditions | 3 lectures | | |
| | OP 6.9: Choose the correct local and systemic therapy for conditions of the anterior chamber and enumerate their indications, adverse events and interactions | 2 SGL | | |
| 8. | DISEASES OF UVEAL TISSUE OP 6.1, OP 6.2, OP 6.3, OP 6.8 06 | | 06 | |
| | OP 6.1: Describe clinical signs of intraocular inflammation and enumerate the features that distinguish granulomatous from non-granulomatous inflammation, Identify acute iridocyclitis from chronic condition | 2 lectures | | |
| | OP 6.2: Identify and distinguish acute iridocyclitis from chronic iridocyclitis | 1 SGL | | |
| | OP 6.3: Enumerate systemic conditions that can present as iridocyclitis and describe their ocular | 1 SGL | | |

| | | | | |
|-----|---|------------|----|--|
| | manifestations | | | |
| | Tumors of uveal tissue | 1 SGL | | |
| 9. | DISEASES OF VITREOUS AND RETINA OP 8.1, OP 8.2, OP 8.3, OP 8.4, AN 41.2, PA 36.1 07 | | 07 | |
| | OP 8.1: Discuss the etiology, pathology, clinical features and management of 1 SGD vascular occlusions of the retina | 1 SGL | | |
| | OP 8.2: Enumerate the indications for laser therapy in the treatment of retinal diseases (including retinal detachment, retinal degenerations, diabetic retinopathy and hypertensive retinopathy) | 1 lectures | | |
| | AN 41.2: Describe the anatomical aspects of cataract, glaucoma and central retinal artery occlusion | 1 SGL | | |
| | PA 36.1 : Describe the etiology, genetics, pathogenesis, pathology, presentation, sequelae and complications of retinoblastoma | 1 lecture | | |
| 10. | DISEASES OF LACRIMAL APPARATUS OP 2.1, OP 2.3, OP 4.4 05 | | 05 | |
| | OP 2.1: Enumerate the causes, describe and discuss the etiology, clinical presentations and diagnostic features of common conditions of the lid and adnexa including Hordeolum externum/internum, blepharitis, preseptal cellulitis, dacryocystitis, hemangioma, dermoid, ptosis, entropion, lid lag, lagophthalmos | 2 lecture | | |
| | OP 4.4: Enumerate the causes and discuss the management of dry eye | 1 SGL | | |
| 11. | DISEASES OF OCULAR MOTILITY AND NYSTAGMUS 06 OP 9.2, OP 1.5, AN 31.5 | | 06 | |

| | | | | |
|-----|---|------------|----|--|
| | OP 9.2: Classify, enumerate the types, methods of diagnosis and indications 3 SGD for referral in a patient with heterotropia/strabismus | 3 SGL | | |
| | OP 1.5: Define, enumerate the types and the mechanism by which strabismus leads to amblyopia | 1 SGL | | |
| | AN 31.5: Explain the anatomical basis of oculomotor, trochlear and abducent nerve palsies along with strabismus | 2 lectures | | |
| 12. | NEURO-OPHTHALMOLOGY AND OCULAR INVOLVEMENT IN SYSTEMIC DISEASES OP 8.5, PY 10.18, OP 9.3, AN 30.5, AN 31.3, PY10.19 06 | 1 SGL | | |
| | OP 8.5: Describe and discuss the correlative anatomy, etiology, clinical manifestations, diagnostic tests, imaging and management of diseases of the optic nerve and visual pathway | 1 SGL | | |
| | | | | |
| | OP 9.3: Describe the role of refractive error correction in a patient with headache and enumerate the indications for referral | 1 SGL | | |
| | | | | |
| | AN 31.3: Describe anatomical basis of Horner's syndrome PY10.19: Describe and discuss auditory and visual evoke potentials | | 06 | |
| 13. | OCULAR INJURIES OP 9.5, OP 6.4 | 5 SGL | | |
| | OP 9.5: Describe the evaluation and enumerate the steps involved in the stabilisation, initial management and indication for referral in a patient with ocular injury | 1 L | | |
| | OP 6.4: Describe and distinguish hyphema and hypopyon | | | |

AETCOM MODULES TO BE COVERED IN PART 1

| | | |
|---------------|------------|--|
| Ophthalmology | <u>3.1</u> | Demonstrate ability to communicate to patients in a patient, respectful, nonthreatening, non-judgmental and empathetic manner |
| | <u>3.2</u> | Demonstrate an understanding of the implications and the appropriate procedure and response to be followed in the event of medical error |

3rd MBBS Part-II

SUGGESTED TOPICS FOR SELF DIRECTED LEARNING (SDL) PART – 2

| DAY | DATE | SDL NO. | COMPETENCY | TOPIC OF ACTIVITY |
|-----|------|---------|---|--|
| 1 | | SDL 1 | OP 6.5: Describe and discuss the angle of the anterior chamber and its clinical correlates | |
| 2 | | SDL 2 | OP 6.7: Enumerate and discuss the etiology, the clinical distinguishing features of various glaucomas associated with shallow and deep anterior chamber. Choose appropriate investigations and treatment for patients with above conditions | Discuss etiology, clinical features, differential diagnoses and management of narrow angle and open angle glaucomas |
| 3 | | SDL 3 | OP 8.1: Discuss the etiology, pathology, clinical features and management of 1 SGD vascular occlusions of the retina | Describe features of CRVO, CRAO, diabetic and hypertensive retinopathy |
| 4 | | SDL 4 | OP 8.2: Enumerate the indications for laser therapy in the treatment of retinal diseases (including retinal detachment, retinal degenerations, diabetic retinopathy and hypertensive retinopathy) | Describe features of CRVO, CRAO, diabetic and hypertensive retinopathy |
| 5 | | SDL 5 | OP 6.1: Describe clinical signs of intraocular inflammation and enumerate the features that distinguish granulomatous from non-granulomatous inflammation, Identify acute iridocyclitis from chronic condition | Discuss etiology, clinical features, differential diagnoses, and management of acute and chronic iridocyclitis |
| 6 | | SDL 6 | OP 8.3: Demonstrate the correct technique of a fundus examination and describe and distinguish the fundoscopic features in a normal condition and In conditions causing an abnormal retinal examination | |
| 7 | | SDL 7 | OP 8.4: Enumerate and discuss treatment modalities in management of diseases of the retina | |
| 8 | | SDL 8 | OP 8.5: Describe and discuss the correlative anatomy, etiology, clinical manifestations, diagnostic tests, imaging and management of diseases of the optic nerve and visual pathway | Describe causes, features and differential diagnoses of lesions of visual pathway/optic nerve chiasma and retro-chiasmal |

| | | | | |
|----|--|--------|---|---|
| | | | | pathways |
| 9 | | SDL 9 | OP 2.3: Demonstrate under supervision clinical procedures performed in the lid including: Bell's phenomenon, assessment of entropion/ectropion, perform the regurgitation test of lacrimal sac, massage technique in congenital dacryocystitis, and trichiatic cilia removal by epilation | |
| 10 | | SDL 10 | OP 2.3: Demonstrate under supervision clinical procedures performed in the lid including: Bell's phenomenon, assessment of entropion/ectropion, perform the regurgitation test of lacrimal sac, massage technique in congenital dacryocystitis, and trichiatic cilia removal by epilation | |
| 11 | | SDL 11 | AN 31.5: Explain the anatomical basis of oculomotor, trochlear and abducent nerve palsies along with strabismus | Describe causes, features and management of 3 rd , 4 th and 6 th cranial nerve palsy |
| 12 | | SDL 12 | PY 10.18: Describe and discuss the physiological basis of lesion in visual pathway | |
| 13 | | SDL 13 | OP 9.3: Describe the role of refractive error correction in a patient with headache and enumerate the indications for referral | |
| 14 | | SDL 14 | OP 9.5: Describe the evaluation and enumerate the steps involved in the stabilisation, initial management and indication for referral in a patient with ocular injury | Describe ocular lesions and management of closed globe and open globe injuries |
| 15 | | SDL 15 | AN 30.5: Explain effect of pituitary tumours on visual pathway | |

**SUGGESTED TOPICS FOR DOAP ACTIVITIES/CLINICAL TEACHING DURING PHASE 3 PART -2 –
CLINICAL POSTINGS**

| Day | Competency | Topic of Activity |
|-----|---|--|
| 1 | OP 2.2 Demonstrate the symptoms and clinical signs of common condition of the lids and adnexa, AETCOM 1.3. 1.4 | Revision of history taking ophthalmology and relevant general physical and systemic examination |
| 2 | OF 1.3. OF 2.2 OP 6.5. OP 8.2. OP 8.3. OP 8.5. AETCOM 3.1 | Revision of complete ocular examination |
| 3 | OF 2.2: Demonstrate the symptoms and clinical signs of common condition of the lids and adnexa OF 2.3 Demonstrate under supervision clinical procedures performed in the lid including Bell's phenomenon assessment of entropion/ectropion | Revision of common eyelid conditions by demonstration short case presentation |
| 4 | OP 2.3: Demonstrate under supervision clinical procedures performed in the lid including Bell's phenomenon assessment of entropion/ectropion | Revision of common disorders of lacrimal apparatus case demonstration/short case presentation |
| 5 | OP 3.1 Elicit document and present an appropriate history in patient presenting with a 'red eye' including congestion, discharge, pain (differential diagnosis of red eye) OF 3.2: Demonstrate document and present the correct method of examination of 'red eye' including vision assessment corneal lustre pupil abnormality ciliary tenderness differential diagnosis of red eye) OP 3.6c Describe the etiology pathophysiology ocular features differential diagnosis, complications and management of pterygium | Revision of common disorders of conjunctiva demonstration/short case presentation of common conjunctival condition (conjunctivitis, trachema, pterygium concretion pingicula, Bitot spot/xerosis |
| 6 | OP 7.3: Demonstrate the correct technique of ocular examination in patient with cataract OP 7.6: | Examination and clinical workup of case of cataract Counselling and consent for cataract surgery |

| | | |
|----|--|---|
| | Administer informed consent and counsel patients for cataract surgery in simulated environment | |
| 7 | OF 7.4: Enumerate the types of cataract surgery and describe the steps intraoperative and postoperative complications of extracapsular cataract extraction surgery | Presentation of case of nuclear cataract, and discuss in management Describe surgical steps of conventional ECCE |
| 8 | OF 7.4 Enumerate the types of cataract surgery and describe the steps intraoperative and postoperative complications of extracapsular cataract extraction surgery OP | Presentation of case of MSC and discuss in management Describe surgical steps of manual SICS |
| 9 | the 7.4: Enumerate steps, surgery and describe the types of cataract extracapsular cataract extraction surgery intraoperative and postoperative complications of OP 7.4 | Presentation of case of IMSC and discuss its management Describe surgical steps of phacoemulsification |
| 10 | the Enumerate the types of cataract surgery and describe steps, Intraoperative and postoperative complications of extracapsular cataract extraction surgery | Presentation of case of pseudophakia and discuss complications of cataract surgery |
| 11 | OP 7.4: Enumerate the types of cataract surgery and describe extracapsular cataract extraction surgery steps intraoperative and postoperative complications of extracapsular cataract extraction surgery | Demonstrate and discuss common instrument used for cataract surgery |
| 12 | OP 6.7: Innumerate and discuss the etiology, the clinical distinguishing features of various glaucomas associated with shallow and deep anterior chamber. Choose appropriate investigations and treatment for patients with above conditions PH 1.58: Describe drugs used in ocular disorders | Presentation of case of acute congestive glaucoma and discuss differential diagnosis of red eye and management of acute glaucoma Anti-glaucoma drugs |

| | | |
|----|---|---|
| 13 | <p>OF 6.7: Innumerate and discuss the etiology, the distinguishing features of various clinical shallow chamber with and deep anterior glaucomas</p> <p>Choose appropriate associated investigations and treatment for patients with above conditions</p> <p>PH 8: Describe drugs used in ocular disorders</p> | <p>Presentation of Case of primary open angle glaucoma (PAOG)</p> <p>discuss its management</p> |
| 14 | <p>OF 6.4: Describe and distinguish hyphema and hypopyon and its clinical correlates</p> <p>OF 6.5: Describe and discuss the angle of anterior chamber and its clinical correlates</p> <p>9.5: Describe the evaluation and enumerate the in the stabilisation, initial management and indication steps for referral in patient with ocular injury</p> | <p>Presentation ocular of case of hyphema and other traumatic lesions</p> <p>Innumerate glaucomas associated with narrow and open angle of anterior chamber</p> <p>Discuss management of traumatic ocular lesions</p> |
| 15 | <p>OF 0.1: Demonstrate the correct technique to examine extraocular movements (uniocular and binocular)</p> | <p>binocular Presentation of case of esotropia</p> <p>Record uniocular and binocular eye movements</p> |
| 16 | <p>OF 9.1: Demonstrate the correct technique to examine extraocular movements (uniocular and binocular)</p> | <p>Presentation of case of exotropia</p> <p>Discuss its management</p> <p>Record of uniocular</p> |
| 17 | <p>OP 9.1: Demonstrate the correct technique to examine extraocular movements (uniocular and binocular)</p> | <p>Discuss various orthoptic instruments such as Maddex rod prism bars red and green goggles, stereopsis charts</p> |
| 18 | <p>OP 2.6: Enumerate the causes and describe the differentiating features and clinical features and management of proptosis</p> | <p>Demonstration/presentation of case of proptosis</p> <p>discuss its differential diagnosis and principles of its management</p> |

| | | |
|----|--|--|
| 19 | <p>OP 3.9: Demonstrate the correct technique of instillation of eye drops in simulated environment OF 6.7: Innumerate and discuss the etiology. the clinical distinguishing features of various glaucomas associated with shallow and deep anterior chamber Choose appropriate investigations and treatment for patients with above conditions OP 2.3: Demonstrate under supervision clinical procedures performed in the lid including: Bell's phenomenon assessment of entropion/ectropion</p> | <p>Demonstration of common skill exercises Digital tonometry instillation of eye medication, ocular bandaging</p> <p>Clinical features of open and narrow angle glaucomas</p> <p>Demonstration of Bell's phenomenon and repilation of trichiasis</p> |
| 20 | <p>OF 3.1: Elicit document and present an appropriate history patient presenting with a 'red eye' including congestion discharge, pain (differential diagnosis of red eye) PH 1.58 Describe drugs used in ocular disorders</p> | <p>Presentation of case of acute iridocyclitis and discuss differential diagnosis of red eye and management of iridocyclitis</p> <p>Discuss cycloplegic drugs and corticosteroids</p> |
| 21 | <p>OP 4.1 Enumerate describe and discuss the types and causes of corneal ulceration PH 1.58 Describe drugs used in ocular disorders</p> | <p>Presentation/demonstration of case of cornea ulcer/ corneal opacity</p> <p>Discuss topical antibiotics antiviral and antifungal drugs</p> |
| 22 | <p>OF 3.8 OP 4.8 Demonstrate the correct technique of removal of foreign body from the eye, cornea in simulated environment</p> | <p>Technique of removal of foreign body from the conjunctiva and cornea</p> |
| 23 | <p>OF 4.10: Counsel patients and family about eye donation in a simulated environment</p> | <p>Counsel patients and family about eye donation in simulated environment</p> |
| 24 | | <p>Ward Leaving test</p> |

Assessment

Eligibility to appear for university examinations is dependent on fulfilling criteria in two main areas – attendance and internal assessment marks

Attendance

Attendance requirements are 75% in theory and 80% in clinical postings for eligibility to appear for the examinations in Ophthalmology.

75% attendance in AETCOM Module is required for eligibility to appear for final examination in 3rd professional year 3 part 1.

Internal Assessment

Progress of the medical learner shall be documented through structured periodic assessment that includes formative and summative assessments. Logs of skill-based training shall be also maintained.

There shall be no less than three internal assessment examinations in Ophthalmology. An end of posting clinical assessment shall be conducted for each of the Ophthalmology clinical posting.

Day to day records and logbook (including required skill certifications) should be given importance in internal assessment. Internal assessment should be based on competencies and skills.

Learners must secure at least 50% marks of the total marks (combined in theory and clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in Ophthalmology in order to be eligible for appearing at the final University examination.

Internal assessment marks will reflect as separate head of passing at the summative examination.

The results of internal assessment should be displayed on the notice board within 1-2 weeks of the test.

Remedial measures should be offered to students who are either not able to score qualifying marks or have missed on some assessments due to any reason.

Learners must have completed the required certifiable competencies for that phase of training and Ophthalmology logbook entry completed to be eligible for appearing at the final university examination.

AETCOM assessment will include: (a) Written tests comprising of short notes and creative writing experiences, (b) OSCE based clinical scenarios / viva voce.

University examinations

University examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary knowledge, minimal level of skills, ethical and

professional values with clear concepts of the fundamentals which are necessary for him/her to function effectively and appropriately as a physician of first contact. Assessment shall be carried out on an objective basis to the extent possible.

Marks allotted

| Ophthalmology | Theory | Clinical examination |
|--------------------|---------------------------|---|
| Total marks | 100 marks | 100 marks |
| | Long essay 2X15= 30 | One long case x 30marks=30marks 2 short cases 2 x15marks=30 |
| | Short essay 10x5=50 marks | OSCE =20marks |
| | MCQs 20x1=20marks | Orals and viva voce = 20 marks |

The theory paper should include different types such as structured essays, short essays, Short Answers Questions (SAQ) and MCQs (Multiple Choice Questions). Marks for each part should be indicated separately.

All the question papers to follow the suggested **blueprint (APPENDIX 1)**. It is desirable that the marks allotted to a particular topic are adhered to.

A minimum of **80%** of the marks should be from the **must know** component of the curriculum. A maximum of **20%** can be from the **desirable to know** component. All **main essay questions** to be from the **must know component** of the curriculum.

One main essay question to be of the **modified variety** containing a clinical case

scenario. At least 30% of questions should be clinical case scenario based. Questions to be constructed to test higher cognitive levels.

Clinical examinations will be conducted in the hospital wards. Clinical cases kept in the examination must be common conditions that the learner may encounter as a physician of first contact in the community. Selection of rare syndromes and disorders as examination cases is to be discouraged. Emphasis should be on candidate's capability to elicit history, demonstrate physical signs, write a case record, analyze the case and develop a management plan.

Viva/oral examination should assess approach to patient management, emergencies, attitudinal, ethical and professional values. Candidate's skill in interpretation of common investigative data, X-rays, identification of specimens, ECG, etc. is to be also assessed.

At least one question in each paper of the clinical specialties in the University examination should test knowledge competencies acquired during the professional development programme. Skill competencies acquired during the Professional Development Programme must be tested during the clinical, practical and viva voce.

There shall be one main examination in an academic year and a supplementary to be held not later than 90 days after the declaration of the results of the main examination.

Pass criteria

Internal Assessment: 50% combined in theory and practical (not less than 40% in each) for eligibility for appearing for University Examinations

University Examination: Mandatory 50% marks both in theory and clinicals (clinicals = clinical + viva)

The grace marks up to a maximum of five marks may be awarded at the discretion of the University to a learner for clearing the examination as a whole but not for clearing a subject resulting in exemption.

Appointment of Examiners

Person appointed as an examiner in the subject must have at least four years of total teaching experience as assistant professor after obtaining postgraduate degree in the subject in a college affiliated to a recognized/approved/permitted medical college.

For the Practical/ Clinical examinations, there shall be at least four examiners for 100 learners, out of whom not less than 50% must be external examiners. Of the four examiners, the senior-most examiner will act as the Chairman and coordinator of the whole examination programme so that uniformity in the matter of assessment of candidates is maintained.

Where candidates appearing are more than 100, two additional examiners (one external & one internal) for every additional 50 or part there of candidates appearing, be appointed.

All eligible examiners with requisite qualifications and experience can be appointed as internal examiners by rotation External examiners may not be from the same University.

Eligibility to appear for University Examination

| | |
|-------------------------------|--|
| Attendance Eligibility | 75% in theory and 80% in practical in each subject and in each professional year |
| Internal Assessment | Learners must secure at least 50% marks of the total marks (combined in theory and practical / clinical not less than 40 % marks in theory and practical separately) |

Examination

a. Assessment method of theory

1st PCT practical/First ward leaving examination-100
 2nd PCT practical / Second ward leaving examination-100
 Prelims practical-100
 Home assignment -10
 Continuous class test –LMS-25
 Seminar -10
 Museum study -10
 Library assignement -10
 Attendance -10
 Total -375

b. Assessment method of practical

1st PCT practical/First ward leaving examination-100
 2nd PCT practical / Second ward leaving examination-100
 Prelims practical-100
 Certificate skill based competencies-100
 AETCOM-30
 SVL lab activity-50
 Research-20
 Journal-40
 Attendance-10
 Total-500

APPENDIX 1: Blueprint for Ophthalmology theory Examinations

| Topics | Marks Distribution |
|---|--------------------|
| Eyelids disorders | 5-8 |
| Conjunctival diseases | 5-10 |
| Corneal disorders | 15-18 |
| Refractive errors | 5-8 |
| Lacrimal Drainage system | 5-8 |
| Tear Film abnormalities | 5-8 |
| Diseases of Sclera | 3-5 |
| Diseases of Lens | 15-18 |
| Glaucoma | 15-18 |
| Uveitis | 15-18 |
| Diseases of Retina and choroid | 15-17 |
| Orbital diseases | 5-8 |
| Neuroophthalmological conditions | 5-8 |
| Community Ophthalmology | 5-8 |
| Strabismus | 3-5 |
| Total | 100 |

OPHTHALMOLOGY SAMPLE QUESTION PAPER

FINAL MBBS PART – 2

TIME: 3 Hrs

Max Marks: 100

Answer All Questions

Draw suitable diagrams where ever necessary

I. Essay Questions:

15×2=30M

- 1) Describe the optic disc changes, visual field defects and management of Primary Open Angle Glaucoma? (5+5+5)M
- 2) (i) A 60 year old female diabetic patient came to ophthalmology OPD complaining of gradual loss of vision in both eyes. Mention two causes for gradual loss of vision and two causes for sudden loss of vision in Diabetes mellitus. (2+2)M
- (ii) Write the classification of Diabetic retinopathy 5M
- (iii) Draw the fundus picture in Diabetic retinopathy 4M
- (iv) Mention two ocular investigations for Diabetic retinopathy 2M

II. Write short notes:

5×10=50M

- 3) Chalazion
- 4) Phlyctenular conjunctivitis
- 5) Keratoconus
- 6) Classification of uveitis.
- 7) Complicated cataract
- 8) Layers of retina with labelled diagram
- 9) Papilloedema
- 10) NPCB
- 11) Aphakia
- 12) How would you approach the family of a braindead patient to discuss the possibility of eye donation.

- 1) Gonioscopy is used to study []
 A) anterior chamber B) posterior chamber
 C) Angle of anterior chamber D) anterior segment
- 2) Refractive condition of the eye at birth is []
 A) hypermetropia of 2 D B) myopia of 2 D
 C) hypermetropia of 5 D D) myopia of 5 D
- 3) Coloured halos are seen in all except? []
 A) cataract B) angle closure glaucoma C) corneal edema
 D) corneal opacity
- 4) Which cell of the retina are responsible for scotopic vision []
 A) bipolar cells B) rod cells C) ganglion cells D) cone cells
- 5) Which layer of cornea once destroyed doesn't regenerate []
 A) Epithelium B) Bowman's membrane
 C) Stroma D) Descemet's membrane
- 6) First symptom of sympathetic ophthalmitis is? []
 A) Decreased near vision B) Photophobia
 C) Pain D) Watering
- 7) Riders are seen in []
 A) Blue dot cataract B) Zonular cataract
 C) Embryonal nuclear cataract D) Diffuse nuclear cataract
- 8) Snow flake cataract is pathognomonic feature of? []
 A) Chalcosis B) Wilson's disease
 C) Diabetes mellitus D) Trauma
- 9) "D" shaped pupil is seen in []
 A) Iridodialysis B) Aniridia
 C) Ectopia lentis D) Poly coria
- 10) Synchysis scintillance is due to: []
 A) Asteroid bodies B) Muscae volitantes
 C) Cholesterol crystals D) Amyloid degeneration
- 11) Koeppe's nodules are characteristic of []
 A) Granulomatous uveitis
 B) Pan uveitis
 C) Posterior uveitis

- 12) Chronic use of steroids may lead to: []
A) Iris atrophy
B) Corneal opacity
C) Glaucoma
D) Retinopathy
- 13) Angular conjunctivitis is caused by: []
A) Staph. aureus
B) Adeno virus
C) Pneumococcus
D) Moraxella axenfeld bacillus
- 14) Optic nerve pierces the sclera []
A) Anteriorly
B) Posteriorly
C) At the equator
D) 4mm behind the equator
- 15) Esotropia is []
A) Alternate squint
B) Convergent squint
C) Divergent squint
D) Latent squint
- 16) Standard power of posterior chamber intra ocular lens is []
A) 20D
B) 10D
C) 5D
D) 15D
- 17) Strongest mydriatic cycloplegic is: []
A) Phenylephrine
B) Tropicamide
C) Cyclopentolate
D) Atropine
- 18) Kestenbaums sign is seen in []
A) Optic atrophy
B) Papilloedema
C) Optic neuritis
D) Neuroretinitis
- 19) All are treatment options of dry eye EXCEPT: []
A) Lubricating eye drops
B) Punctal plugs
C) Steroids
D) Tarsorrhaphy
- 20) Commonest cause of bilateral proptosis in adults is: []
A) Rhabdomyosarcoma
B) Myopia
C) Orbital cellulitis
D) Thyroid eye disease.

185

Practicals:

| LONGCASE | LIST OF SHORT CASE |
|-----------------------|----------------------------|
| Immature cataract | Pterygium |
| Mature cataract | Pinguecula |
| Pseudophakia | Corneal opacity |
| Aphakia | Phthisis bulbi |
| Hyper mature cataract | Lids swelling |
| | Subconjunctival hemorrhage |
| | ptosis |
| | Episcleritis/scleritis |
| | CORNEAL ULCER |
| | And so on |

Distribution of Marks for Practical Examinations:

| | | |
|---|------------------------------|-------------------|
| 1 | Practical Examination | (70marks) |
| | LONGCASE(1x40) | 40 |
| | SHORTCASE(2x15) | 30 |
| 2 | OSCE | (20marks) |
| | LENSES&DRUGS | 10 |
| | INSTRUMENTS | 10 |
| 3 | VIVA VOCE | (10 MARKS) |
| | ORALS&COMMUNITYOPHTHALMOLOGY | 10 |
| | TOTALMARKS | 100 |

RECOMMENDED BOOKS:

| S.No | Name of Book | | Author(s) | Edition | Publishers |
|-------------|------------------------------|--|---------------------------------|------------------|----------------------|
| 1 | Parsons' Diseases of the EYE | | Ramanjit Sihota, Radhika Tandon | 23 rd | Elsevier Publication |
| 2 | Comprehensive ophthalmology | | AK Khurana | 9 th | jaypee |

Theory and practical assessment marks as per table provided by NMC

a. Assessment method of theory

| S. N O | Roll nO | Name of the student | 1 st PCT practical /First ward leaving examination | 2 nd PCT practical / Second ward leaving examination | Prelims practical | Home assignment | Continuous class test (LMS) | Seminar | Museum study | Library assignment | Attendance theory | Total |
|--------|---------|---------------------|---|---|-------------------|-----------------|-----------------------------|---------|--------------|--------------------|-------------------|-------|
| | | | 100 | 100 | 100 | 10 | 25 | 10 | 10 | 10 | 10 | 375 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

b. Assessment method of practical

| | | | Formative assessment | | | Continuous internal assessment | | | | | | |
|------|----------|---------|---|---|-------------------|--------------------------------------|----------|------------------|----------|---------|------------|-------|
| | | | | | | Long book (150) | | | | | | |
| S.No | Roll .No | Student | 1 st PCT practical/ First ward leaving examination | 2 nd PCT practical / Second ward leaving examination | Prelims practical | Certificate skill based competencies | AET CO M | SVL lab activity | Research | Journal | Attendance | Total |
| | | | 100 | 100 | 100 | 60 | 30 | 50 | 20 | 40 | 10 | 500 |

DEPARTMENT OF PAEDIATRICS

GOAL

- Clinician who understands and provides preventive, promotive, curative, palliative and holistic care with compassion.
- Leader and member of the health care team and system with capabilities to collect, analyze, synthesize and communicate health data appropriately.
- Communicator with patients, families, colleagues and community.
- Lifelong learner committed to continuous improvement of skills and knowledge.
- Professional, who is committed to excellence, is ethical, responsive and accountable to patients, community and profession.

The broad goal of the teaching of undergraduate students in Pediatrics is to produce graduates capable of delivering efficient first contact Pediatric care. The aim of teaching the undergraduate student in Pediatrics is to impart such knowledge and skills that may enable him to diagnose and treat common childhood illnesses including neonatal disorders. He/she shall acquire competence for clinical diagnosis based on history, physical examination and relevant laboratory investigations and institute appropriate line of management; this would include diseases common in tropics (parasitic, bacterial or viral infections, nutritional disorders, including dehydration and electrolyte disturbances) and various system illnesses.

COMPETENCIES

The student must demonstrate:

- Ability to assess and promote optimal growth, development and nutrition of children and adolescents and identify deviations from normal,
- Ability to recognize and provide emergency and routine ambulatory and First Level Referral Unit care for neonates, infants, children and adolescents and refer as may be appropriate,
- Ability to perform procedures as indicated for children of all ages in the primary care setting,
- Ability to recognize children with special needs and refer appropriately,
- Ability to promote health and prevent diseases in children,
- Ability to participate in National Programmes related to child health and in conformation with the Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Strategy,
- Ability to communicate appropriately and effectively.

OBJECTIVES

Knowledge

At the end of the course, the student shall be able to

- Demonstrate knowledge of national and regional health care policies including the National Health Mission that incorporates National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM), frameworks, economics and systems that influence health promotion, health care delivery, disease prevention, effectiveness, responsiveness, quality and patient safety.
- Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is complete and relevant to disease identification, disease prevention and health promotion.
- Demonstrate ability to elicit and record from the patient, and other relevant sources including relatives and caregivers, a history that is contextual to gender, age, vulnerability, social and economic status, patient preferences, beliefs and values.
- Demonstrate ability to perform a physical examination that is complete and relevant to disease

identification, disease prevention and health promotion.

- Demonstrate ability to perform a physical examination that is contextual to gender, social and economic status, patient preferences and values.
- Demonstrate effective clinical problem solving, judgment and ability to interpret and integrate available data in order to address patient problems, generate differential diagnoses and develop individualized management plans that include preventive, promotive and therapeutic goals.
- Demonstrate ability to choose the appropriate diagnostic tests and interpret these tests based on scientific validity, cost effectiveness and clinical context.
- Demonstrate ability to prescribe and safely administer appropriate therapies including nutritional interventions, pharmacotherapy and interventions based on the principles of rational drug therapy, scientific validity, evidence and cost that conform to established national and regional health programmes and policies for the following:

- Demonstrate ability to appropriately identify and refer patients who may require specialized or advanced tertiary care.

Skills

- Demonstrate the steps of inserting an IV cannula in a model.
- Demonstrate the steps of inserting an interosseous line in a Mannequin.
- Provide intra-natal care and conduct a normal delivery in a simulated environment.
- Demonstrate the correct administration of different vaccines in a mannequin.
- Perform Neonatal resuscitation in a manikin.
- Perform NG tube insertion in a manikin.
- Perform IV cannulation in a model.
- Perform Interosseous insertion model.
- Demonstrate the technique of liver biopsy in a Perform Liver Biopsy in a simulated environment.
- Observe the various methods of administering Oxygen.
- Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment.
- Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate.
- Assess airway and breathing: perform assisted ventilation by Bag and mask in a simulated environment.
- Secure an IV access in a simulated environment.
- Provide BLS for children in manikin.
- Demonstrate performance of bone marrow aspiration in manikin.
- Perform in a mannequin lumbar puncture. Discuss the indications, contraindication of the procedure.
- Observe administration of Nebulisation.

Attitude and communication

- Communication with empathy to patients & patient's attenders.
- To counsel & obtain informed consent from patient & patients attenders.

Integration

The teaching should be aligned and integrated horizontally and vertically in order to provide comprehensive care for neonates, infants, children and adolescents based on a sound knowledge of growth, development, disease and their clinical, social, emotional, psychological correlates in the context of national health priorities.

SYLLABUS

Reference:

Medical Council of India, Competency Based Undergraduate Curriculum for the Indian Medical

List of all Paediatrics competencies with their specific learning objectives, with suggested teaching-learning and assessment methods:

Theory Syllabus:

3rd MBBS Part I Theory for the Department of Pediatrics
Total:25 hrs

| Sl. No. | Topic code | Topic | Method of teaching |
|---------|------------|---|--------------------|
| 1 | PE1.1 | Define the terminologies Growth and development and discuss the factors affecting normal growth and development | LGT |
| | PE1.2 | Discuss and describe the patterns of growth in infants, children and adolescents | |
| | PE1.5 | Define development and discuss the normal developmental mile stones with respect to motor, behaviour, social, adaptive and language | |
| | PE1.6 | Discuss the methods of assessment of development | |
| 2 | PE6.1 | Define Adolescence and stages of adolescence | LGT |
| | PE6.2 | Describe the physical, physiological and psychological changes during adolescence (Puberty) | |
| | PE6.3 | Discuss the general health problems during adolescence | |
| 3 | PE7.1 | Awareness on the cultural beliefs and practices of breast feeding | LGT |
| | PE7.2 | Explain the physiology of lactation | |
| | PE7.3 | Describe the composition and types of breast milk and discuss the differences between cow's milk and Human milk | |
| | PE7.4 | Discuss the advantages of breast milk | |
| | PE7.6 | Enumerate the baby friendly hospital initiatives | |
| 4 | PE9.1 | Describe the age related nutritional needs of infants, children and adolescents including micronutrients and vitamins | LGT |
| | PE9.2 | Describe the tools and methods for assessment and classification of nutritional status of infants, children and adolescents | |
| | PE9.3 | Explains the Calorific value of common Indian foods | |

| | | | |
|---|--------|---|-----|
| 5 | PE17.1 | State the vision and outline the goals, strategies and plan of action of NHM and other important national programs pertaining to maternal and child health including RMNCH A+, RBSK, RKSK, JSSK mission Indradhanush and ICDS | LGT |
| | PE18.1 | List and explain the components, plan, outcome of Reproductive Child Health (RCH) program and appraise its monitoring and evaluation | |
| | PE18.2 | Explain preventive interventions for child survival and safe motherhood | |
| | PE18.4 | Provide intra-natal care and conduct a normal delivery in a simulated environment | |
| | PE18.5 | Provide intra-natal care and observe the conduct of a normal delivery | |
| National Programs, RCH-Universal immunizations Program | | | |
| 6 | PE19.1 | Explain the components of the Universal Immunization Program and the National Immunization Program | LGT |
| | PE19.2 | Explain the epidemiology of Vaccine preventable diseases | |
| | PE19.3 | Vaccine description with regard to classification of vaccines, strain used, dose, route, schedule, risks, benefits and side effects, indications and contraindications | |
| | PE19.5 | Discuss immunization in special situations – HIV positive children, immunodeficiency, pre-term, organ transplants, those who received blood and blood products, splenectomised children, adolescents, travellers | |
| Diarrheal diseases and Dehydration | | | |
| 07 | PE24.1 | Discuss the etio-pathogenesis, classification, clinical presentation and management of diarrheal diseases in children | LGT |
| | PE24.2 | Discuss the classification and clinical presentation of various types of diarrheal dehydration | |
| | PE24.3 | Discuss the physiological basis of ORT, types of ORS and the composition of various types of ORS | |
| | PE24.5 | Discuss the role of antibiotics, antispasmodics, anti-secretory drugs, probiotics, anti-emetics in acute diarrheal diseases | |
| 08 | PE24.6 | Discuss the causes, clinical presentation and management of persistent diarrhoea in children | LGT |
| | PE24.7 | Discuss the causes, clinical presentation and management of chronic diarrhoea in children | |

| | | | |
|--|---------|---|-----|
| | PE24.8 | Discuss the causes, clinical presentation and management of dysentery in children | |
| Vaccine Preventable diseases-Tuberculosis | | | |
| 09 | PE34.1 | Discuss the epidemiology, clinical features, clinical types, complications of Tuberculosis in Children and Adolescents | LGT |
| | PE34.2 | Discuss the various diagnostic tools for childhood tuberculosis | |
| | PE34.3 | Discuss the various regimens for management of Tuberculosis as per National Guidelines | |
| | PE34.4 | Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Control Program | |
| 10 | PE34.14 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of fever in children | LGT |
| | PE34.15 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with exanthematous illnesses like Measles, Mumps, Rubella & Chicken pox | |
| | PE34.16 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Diphtheria, Pertussis, Tetanus. | |
| | PE34.17 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Typhoid | |
| 11 | PE34.18 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Dengue, Chikungunya and other vector born diseases | LGT |
| | PE34.19 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of children with Common Parasitic infections, malaria, leishmaniasis, filariasis, helminthic infestations, amebiasis, giardiasis | |
| | PE34.20 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Rickettsial diseases | |

| | | | |
|--|------------|-------|--------------------|
| 3rd MBBS Part I SGD for the Department of Pediatrics Total 30, | | | |
| SL no | Topic code | Topic | Method of teaching |
| Normal Growth and Development | | | |

| | | | |
|--|-------|---|-----|
| 12 | PE1.3 | Discuss and describe the methods of assessment of growth including use of WHO and Indian national standards. Enumerate the parameters used for assessment of physical growth in infants, children and adolescents | SGD |
| | PE1.4 | Perform Anthropometric measurements, document in growth charts and interpret | |
| | | | |
| 13 | PE1.7 | Perform Developmental assessment and interpret | SGD |
| Common problems related to Growth | | | |
| | PE2.1 | Discuss the etio-pathogenesis, clinical features and management of a child who fails to thrive | SGD |
| 14 | PE2.4 | Discuss the etio-pathogenesis, clinical features and management of a child with short stature | SGD |
| | PE2.5 | Assessment of a child with short stature: Elicit history, perform examination, document and present | |
| | PE2.6 | Enumerate the referral criteria for growth related problems | |

| Common problems related to behavior | | | |
|---|---------|---|-----|
| 15 | PE5.10 | Discuss the role of child guidance clinic in children with behavioural problems and the referral criteria | SGD |
| | PE5.11 | Visit to Child Guidance Clinic and observe functioning | |
| Adolescent Health & common problems related to Adolescent Health Number of competencies: (13) | | | |
| 16 | PE6.11 | Visit to the Adolescent Clinic | SGD |
| | PE6.12 | Enumerate the importance of obesity and other NCD in adolescents | |
| To promote and support optimal Breast feeding for Infants | | | |
| 17 | PE7.8 | Educate mothers on ante natal breast care and prepare mothers for lactation | SGD |
| | PE7.9 | Educate and counsel mothers for best practices in Breast feeding | |
| | PE7.10 | Respects patient privacy | |
| | PE7.11 | Participate in Breast Feeding Week Celebration | |
| Complementary Feeding | | | |
| 18 | PE8.1 | Define the term Complementary Feeding | SGD |
| | PE8.2 | Discuss the principles, the initiation, attributes, frequency, techniques and hygiene related to Complementary Feeding including IYCF | |
| | PE8.3 | Enumerate the common complimentary foods | |
| Obesity in children | | | |
| 19 | PE11.1 | Describe the common etiology, clinical features and management of obesity in children | SGT |
| | PE11.2 | Discuss the risk approach for obesity and discuss the prevention strategies | |
| | PE11.6 | Discuss criteria for referral | |
| Micronutrients in Health and disease-1 (Vitamins ADEK, B Complex and C) | | | |
| 20 | PE12.6 | Discuss the RDA, dietary sources of Vitamin D and their role in health and disease | SGT |
| | PE12.7 | Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin D (Rickets and Hypervitaminosis D) | |
| | PE12.10 | Discuss the role of screening for Vitamin D deficiency | |

| | | | |
|--|---------|---|-----|
| | PE12.11 | Discuss the RDA, dietary sources of Vitamin E and their role in health and disease | |
| | PE12.12 | Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin E | |
| | PE12.13 | Discuss the RDA, dietary sources of Vitamin K and their role in health and disease | |
| | PE12.14 | Describe the causes, clinical features, diagnosis management and prevention of deficiency of Vitamin K | |
| | PE12.15 | Discuss the RDA, dietary sources of Vitamin B and their role in health and disease | |
| | PE12.16 | Describe the causes, clinical features, diagnosis and management of deficiency of B complex Vitamins | |
| | PE12.17 | Identify the clinical features of Vitamin B complex deficiency | |
| | PE12.18 | Diagnose patients with Vitamin B complex deficiency and plan management | |
| | PE12.19 | Discuss the RDA , dietary sources of Vitamin C and their role in Health and disease | |
| | PE12.20 | Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin C (scurvy) | |
| National Programs, RCH - Universal Immunizations program | | | |
| 21 | PE19.4 | Define cold chain and discuss the methods of safe storage and handling of vaccines | SGD |
| | PE19.9 | Describe the components of safe vaccine practice – Patient education/ counselling; adverse events following immunization, safe injection practices, documentation and Medico-legal implications | |
| | PE19.10 | Observe the handling and storing of vaccines | |
| 22 | PE19.7 | Educate and counsel a patient for immunization | SGD |
| | PE19.8 | Demonstrate willingness to participate in the National and sub national immunisation days | |
| | PE19.11 | Document Immunization in an immunization record | |
| | PE19.15 | Explain the term implied consent in Immunization services | |
| 23 | PE19.12 | Observe the administration of UIP vaccines | SGD |
| | PE19.13 | Demonstrate the correct administration of different vaccines in a mannequin | |
| | PE19.14 | Practice Infection control measures and appropriate handling of the sharps | |
| 24 | PE19.16 | Enumerate available newer vaccines and their indications including pentavalent pneumococcal, rotavirus, JE, typhoid IPV & HPV | SGD |
| Cardiovascular system- Heart Diseases | | | |
| 25 | PE23.12 | Interpret a chest X ray and recognize Cardiomegaly | SGD |
| | PE23.13 | Choose and Interpret blood reports in Cardiac illness | |

| | | | |
|---|---------|--|-----------|
| 26 | PE23.14 | Interpret Pediatric ECG | SGD |
| | PE23.15 | Use the ECHO reports in management of cases | |
| Diarrhoeal diseases and Dehydration | | | |
| 27 | PE24.4 | Discuss the types of fluid used in Paediatric diarrheal diseases and their composition | SGD |
| 28 | PE24.14 | Plan fluid management as per the WHO criteria | Skill Lab |
| | PE24.15 | Perform NG tube insertion in a manikin | |
| | PE24.16 | Perform IV cannulation in a model | |
| | PE24.17 | Perform Intraosseous insertion in a model | |
| Acute and chronic liver disorders | | | |
| 29 | PE26.9 | Interpret Liver Function Tests, viral markers, ultra sonogram report | SGD |
| | PE26.10 | Demonstrate the technique of liver biopsy in a Perform Liver Biopsy in a simulated environment | |
| | PE26.11 | Enumerate the indications for Upper GI endoscopy | |
| Respiratory system | | | |
| 30 | PE28.8 | Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children | SGD |
| 31 | PE28.10 | Perform otoscopic examination of the ear | SGD(OPD) |
| | PE28.11 | Perform throat examination using tongue depressor | |
| | PE28.12 | Perform examination of the nose | |
| 32 | PE28.16 | Interpret blood tests relevant to upper respiratory problems | SGD |
| | PE28.17 | Interpret X-ray of the paranasal sinuses and mastoid; and /or use written report in case of management Interpret CXR in foreign body aspiration and lower respiratory tract infection, understand the significance of thymic shadow in pediatric chest X-rays | |
| | PE28.20 | Counsel the child with asthma on the correct use of inhalers in a simulated environment | SGD |
| Anemia and other Hemato-oncologic disorders in children | | | |
| 33 | PE29.5 | Discuss the National Anaemia Control Program | SGD |

| | | | |
|---|---------|--|-----------------|
| | PE29.14 | Interpret CBC, LFT | SGD |
| | PE29.15 | Perform and interpret peripheral smear | |
| | PE29.16 | Discuss the indications for Hemoglobin electrophoresis and interpret report | SGD |
| | PE29.20 | Enumerate the indications for splenectomy and precautions | |
| Vaccine preventable Diseases - Tuberculosis | | | |
| 34 | PE34.10 | Discuss the various samples for demonstrating the organism e.g. Gastric Aspirate, Sputum , CSF, FNAC | SGD(Micro Lab) |
| | PE34.11 | Perform AFB staining | |
| | PE34.12 | Enumerate the indications and discuss the limitations of methods of culturing M.Tuberculi | |

3rd MBBS Part I SDL for the Department of Pediatrics Total :10

| SL no | Topic code | Topic | Method of teaching |
|-------|------------|---|--------------------|
| 35 | PE5.1 | Describe the clinical features, diagnosis and management of thumb sucking | Seminar |
| | PE5.2 | Describe the clinical features, diagnosis and management of Feeding problems | |
| | PE5.3 | Describe the clinical features, diagnosis and management of nail biting | |
| | PE5.4 | Describe the clinical features, diagnosis and management of Breath Holding spells | |

| | | | |
|--|---------|--|---------|
| | PE5.5 | Describe the clinical features, diagnosis and management of temper tantrums | |
| | PE5.6 | Describe the clinical features, diagnosis and management of Pica | |
| | PE5.7 | Describe the clinical features, diagnosis and management of Fussy infant | |
| | PE5.8 | Discuss the etiology, clinical features and management of Enuresis | |
| | PE5.9 | Discuss the etiology, clinical features and management of Encopresis | |
| Adolescent Health & common problems related to Adolescent Health Number of competencies | | | |
| 36 | PE6.4 | Describe adolescent sexuality and common problems related to it | Seminar |
| | PE6.5 | Explain the Adolescent Nutrition and common nutritional problems | |
| | PE6.6 | Discuss the common Adolescent eating disorders (Anorexia Nervosa, Bulimia) | |
| | PE6.7 | Describe the common mental health problems during adolescence | |
| 37 | PE6.10 | Discuss the objectives and functions of AFHS (Adolescent Friendly Health Services) and the referral criteria | Seminar |
| | PE6.13 | Enumerate the prevalence and the importance of recognition of sexual drug abuse in adolescents and children | |
| Cardiovascular system- Heart Diseases | | | |
| 38 | PE23.16 | Discuss the indications and limitations of Cardiac catheterization | Seminar |
| | PE23.17 | Enumerate some common cardiac surgeries like BT shunt, Potts and Waterston's and corrective surgeries | |
| | PE23.18 | Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter | |
| Vaccine preventable Diseases - Tuberculosis | | | |
| 39 | PE34.13 | Enumerate the newer diagnostic tools for Tuberculosis including BACTEC CBNAAT and their indications | Seminar |

3rd MBBS Part I Clinical Posting for the Department of Pediatrics Total:(4weeks, 6days per week).

Clinical Posting

| SL no | Topic code | Topic | Method of teaching |
|-------|------------|--|--------------------|
| 40 | PE22.2 | Counsel a patient with Chronic illness | |

| | | | |
|----|---------|--|----|
| 41 | PE23.7 | Elicit appropriate history for a cardiac disease, analyse the symptoms e.g. breathlessness, chest pain, tachycardia, feeding difficulty, failing to thrive, reduced urinary output, swelling, syncope, cyanotic spells, Suck rest cycle, frontal swelling in infants. Document and present | CP |
| | PE23.8 | Identify external markers of a cardiac disease e.g. Cyanosis, Clubbing, dependent edema, dental caries, arthritis, erythema rash, chorea, subcutaneous nodules, Osler's node, Janeway lesions and document | |
| | PE23.9 | Record pulse, blood pressure, temperature and respiratory rate and interpret as per the age | |
| | PE23.10 | Perform independently examination of the cardiovascular system – look for precordial bulge, pulsations in the precordium, JVP and its significance in children and infants, relevance of percussion in Pediatric examination, Auscultation and other system examination and document | |
| | PE23.11 | Develop a treatment plan and prescribe appropriate drugs including fluids in cardiac diseases, anti -failure drugs, and inotropic agents | |
| | PE23.12 | Interpret a chest X ray and recognize Cardiomegaly | |
| | PE23.13 | Choose and Interpret blood reports in Cardiac illness | |
| | PE23.14 | Interpret Pediatric ECG | |
| | PE23.15 | Use the ECHO reports in management of cases | |
| 42 | PE24.9 | Elicit, document and present history pertaining to diarrheal diseases | CP |
| | PE24.10 | Assess for signs of dehydration, document and present | |
| | PE24.11 | Apply the IMNCI guidelines in risk stratification of children with diarrheal dehydration and refer | |
| | PE24.12 | Perform and interpret stool examination including Hanging Drop | |
| | PE24.13 | Interpret RFT and electrolyte report | |
| | PE24.14 | Plan fluid management as per the WHO criteria | |
| 43 | PE26.5 | Elicit document and present the history related to diseases of Gastrointestinal system | CP |
| | PE26.6 | Identify external markers for GI and Liver disorders e.g.. Jaundice, Pallor, Gynaecomastia, Spider angioma, Palmar erythema, Ichthyosis, Caput medusa, Clubbing, Failing to thrive, Vitamin A and D deficiency | |
| | PE26.7 | Perform examination of the abdomen, demonstrate organomegaly, ascites etc. | |
| | PE26.8 | Analyse symptoms and interpret physical signs to make a provisional/ differential diagnosis | |
| | PE26.9 | Interpret Liver Function Tests, viral markers, ultra sonogram report | |
| | PE26.13 | Counsel and educate patients and their family appropriately on liver diseases | |

| | | | |
|-------------------|---------|--|------|
| 44 | PE28.9 | Elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor | CP |
| | PE28.13 | Analyse the clinical symptoms and interpret physical findings and make a provisional / differential diagnosis in a child with ENT symptoms | |
| | PE28.14 | Develop a treatment plan and document appropriately in a child with upper respiratory symptoms | |
| | PE28.15 | Stratify risk in children with stridor using IMNCI guidelines | |
| | PE28.16 | Interpret blood tests relevant to upper respiratory problems | |
| | PE28.17 | Interpret X-ray of the paranasal sinuses and mastoid; and /or use written report in case of management Interpret CXR in foreign body aspiration and lower respiratory tract infection, understand the significance of thymic shadow in pediatric chest X-rays | |
| 45 | PE29.10 | Elicit, document and present the history related to Hematology | CP |
| | PE29.11 | Identify external markers for hematological disorders e.g.. Jaundice, Pallor, Petechiae purpura, Ecchymosis, Lymphadenopathy, bone tenderness, loss of weight, Mucosal and large joint bleed | |
| | PE29.12 | Perform examination of the abdomen, demonstrate organomegaly | |
| | PE29.13 | Analyse symptoms and interpret physical signs to make a provisional/ differential diagnosis | |
| | PE29.14 | Interpret CBC, LFT | |
| | PE29.18 | Enumerate the referral criteria for Hematological | |
| | | conditions | |
| | PE29.19 | Counsel and educate patients about prevention and treatment of anemia | |
| 46 | PE34.5 | Able to elicit, document and present history of contact with tuberculosis in every patient encounter | CP |
| | PE34.6 | Identify a BCG scar | |
| | PE34.7 | Interpret a Mantoux test | |
| | PE34.8 | Interpret a Chest Radiograph | |
| | PE34.9 | Interpret blood tests in the context of laboratory evidence for tuberculosis | |
| | PE34.10 | Discuss the various samples for demonstrating the organism e.g. Gastric Aspirate, Sputum , CSF, FNAC | |
| Video/DOAP | | | |
| 47 | PE18.4 | Provide intra-natal care and conduct a normal delivery in a simulated environment | DOAP |
| | PE18.5 | Provide intra-natal care and observe the conduct of a normal delivery | |
| 48 | PE19.7 | Educate and counsel a patient for immunization | |
| | PE19.10 | Observe the handling and storing of vaccines | |

| | | | |
|---|------------|--|--------------------|
| 49 | PE19.12 | Observe the administration of UIP vaccines | DOAP |
| | PE19.14 | Practice Infection control measures and appropriate handling of the sharps | |
| 50 | PE19.13 | Demonstrate the correct administration of different vaccines in a mannequin | DOAP |
| 51 | PE24.15 | Perform NG tube insertion in a manikin | DOAP |
| | PE24.16 | Perform IV cannulation in a model | |
| | PE24.17 | Perform Interosseous insertion model | |
| | PE26.10 | Demonstrate the technique of liver biopsy in a Perform Liver Biopsy in a simulated environment | |
| 52 | PE28.10 | Perform otoscopic examination of the ear | DOAP |
| | PE28.11 | Perform throat examination using tongue depressor | |
| | PE28.12 | Perform examination of the nose | |
| 53 | PE29.15 | Perform and interpret peripheral smear | DOAP |
| 54 | PE34.11 | Perform AFB staining | DOAP |
| Debate/OSPE | | | |
| 55 | PE17.2 | Analyse the outcomes and appraise the monitoring and evaluation of NHM | Debate |
| | PE2.3 | Counselling a parent with failing to thrive child | OSPE |
| Skill Lab | | | |
| 56 | PE30.23 | Perform in a mannequin lumbar puncture. Discuss the indications, contraindication of the procedure | SL |
| Demonstration | | | |
| 57 | PE27.9 | Discuss oxygen therapy, in Pediatric emergencies and modes of administration | SL |
| | PE27.10 | Observe the various methods of administering Oxygen | |
| | PE31.11 | Observe administration of Nebulisation | |
| 3 rd MBBS Part II Theory for the Department of PediatricsTotal :30 | | | |
| SL no | Topic code | Topic | Method of Teaching |
| Common problems related to Development -1 (Developmental delay , Cerebral palsy) | | | |
| 58 | PE3.1 | Define, enumerate and discuss the causes of developmental delay and disability including intellectual disability in children | LGT |
| | PE3.2 | Discuss the approach to a child with developmental delay | |
| | PE3.8 | Discuss the etio-pathogenesis, clinical presentation and multi- disciplinary approach in the management of Cerebral palsy | |
| Common problems related to Development-2 (Scholastic backwardness, Learning Disabilities , Autism , ADHD) | | | |
| | PE4.1 | Discuss the causes and approach to a child with scholastic backwardness | |

| | | | |
|--|--------------------------------------|---|-----|
| 59 | PE4.2 | Discuss the etiology, clinical features, diagnosis and management of a child with Learning Disabilities | LGT |
| | PE4.3 | Discuss the etiology, clinical features, diagnosis and management of a child with Attention Deficit Hyperactivity Disorder (ADHD) | |
| | PE4.4 | Discuss the etiology, clinical features, diagnosis and management of a child with Autism | |
| : Provide nutritional support , assessment and monitoring for common nutritional problems-1hrs | | | |
| 13 | | | |
| 60 | PE10.1 | Define and describe the etio-pathogenesis, classify including WHO classification, clinical features, complication and management of Severe Acute Malnourishment (SAM) and Moderate Acute Malnutrition (MAM) | LGT |
| | PE10.2 | Outline the clinical approach to a child with SAM and MAM | |
| Care of the Normal New born, and High risk New born | | | |
| 61 | PE20.7 | Discuss the etiology, clinical features and management of Birth asphyxia | LGT |
| 62 | PE20.9 | Discuss the etiology, clinical features and management of Birth injuries | LGT |
| | PE20.8 | Discuss the etiology, clinical features and management of respiratory distress in New born including meconium aspiration and transient tachypnoea of newborn | |
| 63 | PE20.10 | Discuss the etiology, clinical features and management of Hemorrhagic disease of New born | LGT |
| | PE20.19 | Discuss the etiology, clinical features and management of Neonatal hyperbilirubinemia | |
| 64 | PE20.11 | Discuss the clinical characteristics, complications and management of Low birth weight (preterm and Small for gestation) | LGT |
| | PE20.16 | Discuss the etiology, clinical features and management of Neonatal Sepsis | LGT |
| | PE20.17 | Discuss the etiology, clinical features and management of Perinatal infections | |
| | Cardiovascular system-Heart Diseases | | |
| 65 | PE23.1 | Discuss the Hemodynamic changes, clinical presentation, complications and management of Acyanotic Heart Diseases –VSD, ASD and PDA | LGT |
| | PE23.2 | Discuss the Hemodynamic changes, clinical presentation, complications and management of Cyanotic Heart Diseases – Fallot’s Physiology | LGT |
| | PE23.3 | Discuss the etio-pathogenesis, clinical presentation and management of cardiac failure in infant and children | LGT |
| | PE23.6 | Discuss the etio-pathogenesis, clinical features and management of Infective endocarditis in children | |

| | | | | |
|---|---------|--|-----|--|
| | PE23.4 | Discuss the etio-pathogenesis, clinical presentation and management of Acute Rheumatic Fever in children | LGT | |
| | PE23.5 | Discuss the clinical features, complications, diagnosis, management and prevention of Acute Rheumatic Fever | | |
| Genito-Urinary system | | | | |
| 66 | PE21.1 | Enumerate the etio-pathogenesis, clinical features, complications and management of Urinary Tract infection in children | LGT | |
| | PE21.2 | Enumerate the etio-pathogenesis, clinical features, complications and management of acute post-streptococcal Glomerular Nephritis in children | | |
| | PE21.5 | Enumerate the etio-pathogenesis, clinical features, complications and management of Acute Renal Failure in children | LGT | |
| | PE21.6 | Enumerate the etio-pathogenesis, clinical features, complications and management of Chronic Renal Failure in Children | | |
| | PE21.14 | Recognize common surgical conditions of the abdomen and genitourinary system and enumerate the indications for referral including acute and subacute intestinal obstruction, appendicitis, pancreatitis, perforation intussusception, Phimosis, undescended testis, Chordee, hypospadiasis, Torsion testis, hernia Hydrocele, Vulval Synechiae | LGT | |
| | PE21.15 | Discuss and enumerate the referral criteria for children with genitourinary disorder | | |
| Approach to and recognition of a child with possible Rheumatologic problem | | | | |
| 67 | PE22.1 | Enumerate the common Rheumatological problems in children. Discuss the clinical approach to recognition and referral of a child with | LGT | |
| | | Rheumatological problem | | |
| Pediatric Emergencies – Common Pediatric Emergencies | | | | |
| 68 | PE27.1 | List the common causes of morbidity and mortality in the under five children | LGT | |
| | PE27.3 | Describe the etio-pathogenesis of respiratory distress in children | LGT | |
| | PE27.4 | Describe the clinical approach and management of respiratory distress in children | | |
| Systemic Pediatrics-Central Nervous system | | | | |
| 69 | PE30.1 | Discuss the etio-pathogenesis, clinical features , complications, management and prevention of meningitis in children | LGT | |
| | PE30.2 | Distinguish bacterial, viral and tuberculous meningitis | | |

| | | | |
|--|---------|--|-----|
| | PE30.3 | Discuss the etio-pathogenesis, classification, clinical features, complication and management of Hydrocephalus in children | |
| | PE30.8 | Define epilepsy. Discuss the pathogenesis, clinical types, presentation and management of Epilepsy in children | LGT |
| | PE30.9 | Define status Epilepticus. Discuss the clinical presentation and management | |
| | PE30.10 | Discuss the etio-pathogenesis, clinical features and management of Mental retardation in children | LGT |
| | PE30.11 | Discuss the etio-pathogenesis, clinical features and management of children with cerebral palsy | |
| | PE30.12 | Enumerate the causes of floppiness in an infant and discuss the clinical features, differential diagnosis and management | |
| Allergic Rhinitis , Atopic Dermatitis, Bronchial Asthma , Urticaria Angioedema | | | |
| 70 | PE31.5 | Discuss the etio-pathogenesis, clinical types, presentations, management and prevention of childhood Asthma | LGT |
| Endocrinology-2hr | | | |
| 71 | PE33.1 | Describe the etio-pathogenesis clinical features, management of Hypothyroidism in children | LGT |
| | PE33.4 | Discuss the etio-pathogenesis, clinical types, presentations, complication and management of Diabetes mellitus in children | LGT |

| 3 rd MBBS Part II SGD for the Department of Pediatrics | | | |
|---|------------|--|--------------------|
| Total: 60 | | | |
| SL no | Topic code | Topic | Method of teaching |
| Common problems related to Development -1 (Developmental delay , Cerebral palsy) | | | |
| 72 | PE 3.6 | Discuss the referral criteria for children with developmental delay | SGD |
| | PE 3.7 | Visit a Child Developmental Unit and observe its functioning | |
| Common problems related to Development-2 (Scholastic backwardness, Learning Disabilities , Autism , ADHD) | | | |
| 73 | PE 4.5 | Discuss the role of Child Guidance clinic in children with Developmental problems | SGD |
| | PE 4.6 | Visit to the Child Guidance Clinic | |
| Provide nutritional support , assessment and monitoring for common nutritional problems | | | |
| 74 | PE10.4 | Identify children with under nutrition as per IMNCI criteria and plan referral | SGD |
| Micronutrients in Health and disease-1 (Vitamins ADEK, B Complex and C)) | | | |
| | PE 12.1 | Discuss the RDA, dietary sources of Vitamin A and their role in Health and disease | |

| | | | | |
|---|---------|--|-----|--|
| 75 | PE 12.2 | Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin A | SGD | |
| | PE 12.5 | Discuss the Vitamin A prophylaxis program and their recommendations | | |
| 76 | PE12.8 | Identify the clinical features of dietary deficiency of Vitamin D | SGD | |
| | PE 12.9 | Assess patients with Vitamin D deficiency, diagnose, classify and plan management | | |
| Micronutrients in Health and disease -2: Iron, Iodine, Calcium, Magnesium) | | | | |
| 77 | PE13.1 | Discuss the RDA, dietary sources of Iron and their role in health and disease | SGD | |
| | PE13.2 | Describe the causes, diagnosis and management of Fe deficiency | | |
| | PE13.6 | Discuss the National anaemia control program and its recommendations | | |
| Fluid and electrolyte balance) | | | | |
| 78 | PE15.1 | Discuss the fluid and electrolyte requirement in health and disease | SGD | |
| | PE15.2 | Discuss the clinical features and complications of fluid and electrolyte imbalance and outline the management | | |
| | PE15.3 | Calculate the fluid and electrolyte requirement in health | | |
| 79 | PE15.4 | Interpret electrolyte report | SGD | |
| | PE15.5 | Calculate fluid and electrolyte imbalance | | |
| | PE33.5 | Interpret Blood sugar reports and explain the diagnostic criteria for Type 1 Diabetes | | |
| | PE33.6 | Perform and interpret Urine Dip Stick for Sugar | | |
| Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Guideline) | | | | |
| 80 | PE16.1 | Explain the components of Integrated Management of Neonatal and Childhood Illnesses (IMNCI) guidelines and method of Risk stratification | SGD | |
| | PE20.18 | Identify and stratify risk in a sick neonate using IMNCI guidelines | | |
| Care of the Normal New born, and High risk New born | | | | |
| 81 | PE20.1 | Define the common neonatal nomenclatures including the classification and describe the characteristics of a Normal Term Neonate and High Risk Neonates | SGD | |
| | PE20.2 | Explain the care of a normal neonate | | |
| 82 | PE20.12 | Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypothermia | SGD | |
| | PE20.13 | Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypoglycemia | | |
| | PE20.14 | Discuss the etiology, clinical features and management of Neonatal hypocalcemia | | |
| | PE20.15 | Discuss the etiology, clinical features and management of Neonatal seizures | | |

| | | | | | |
|--------|--|--|---|-----|--|
| | PE20.20 | Identify clinical presentations of common surgical conditions in the new born including TEF, esophageal atresia, anal atresia, cleft lip and palate, congenital diaphragmatic hernia and causes of acute abdomen | | SGD | |
| | Acute and chronic liver disorder | | | | |
| | 83 | PE26.1 | Discuss the etio-pathogenesis, clinical features and management of acute hepatitis in children | LGT | |
| | | PE26.2 | Discuss the etio-pathogenesis, clinical features and management of Fulminant Hepatic Failure in children | | |
| | | PE26.3 | Discuss the etio-pathogenesis, clinical features and management of chronic liver diseases in children | | |
| | | PE26.4 | Discuss the etio-pathogenesis, clinical features and management of Portal Hypertension in children | | |
| | Respiratory System | | | | |
| | 84 | PE28.1 | Discuss the etio-pathogenesis, clinical features and management of Naso pharyngitis | LGT | |
| | | PE28.2 | Discuss the etio-pathogenesis of Pharyngo Tonsillitis | | |
| | | PE28.3 | Discuss the clinical features and management of Pharyngo Tonsillitis | | |
| | | PE28.4 | Discuss the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM) | | |
| | | PE28.5 | Discuss the etio-pathogenesis, clinical features and management of Epiglottitis | | |
| | | PE28.6 | Discuss the etio-pathogenesis, clinical features and management of Acute laryngo- trachea-bronchitis | | |
| | | PE28.7 | Discuss the etiology, clinical features and management of Stridor in children | | |
| | 85 | PE28.18 | Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of lower respiratory infections including bronchiolitis, wheeze associated LRTI Pneumonia and empyema | LGT | |
| | | PE28.19 | Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of asthma in children | | |
| | Anaemia and other Hemato-oncologic disorders in children | | | | |
| | 86 | PE29.1 | Discuss the etio-pathogenesis, clinical features, classification and approach to a child with anaemia | LGT | |
| | | PE29.2 | Discuss the etio-pathogenesis, clinical features and management of Iron Deficiency anaemia | | |
| | | PE29.3 | Discuss the etiopathogenesis, clinical features and management of VIT B12, Folate deficiency anaemia | | |
| PE29.4 | | Discuss the etio-pathogenesis, clinical features and management of Hemolytic anemia, Thalassemia Major, Sickle cell anaemia, Hereditary spherocytosis, Auto-immune hemolytic anaemia and hemolytic uremic syndrome | | | |

| | | | | | |
|---|---------|---|---|-----|--|
| | 87 | PE29.6 | Discuss the cause of thrombocytopenia in children: describe the clinical features and management of Idiopathic Thrombocytopenic Purpura (ITP) | LGT | |
| | | PE29.7 | Discuss the etiology, classification, pathogenesis and clinical features of Hemophilia in children | | |
| | | PE29.8 | Discuss the etiology, clinical presentation and management of Acute Lymphoblastic Leukemia in children | | |
| | | PE29.9 | Discuss the etiology, clinical presentation and management of lymphoma in children | | |
| Genito-Urinary system) | | | | | |
| 88 | PE21.3 | Discuss the approach and referral criteria to a child with Proteinuria | SGD | | |
| | PE21.11 | Perform and interpret the common analytes in a Urine examination | | | |
| | PE21.12 | Interpret report of Plain X Ray of KUB | | | |
| | PE21.4 | Discuss the approach and referral criteria to a child with Hematuria | SGD | | |
| | PE21.7 | Enumerate the etio-pathogenesis, clinical features, complications and management of Wilms Tumor | | | |
| | PE21.17 | Describe the etiopathogenesis, grading, clinical features and management of hypertension in children | SGD | | |
| Pediatric Emergencies – Common Pediatric Emergencies | | | | | |
| 89 | PE27.2 | Describe the etio-pathogenesis, clinical approach and management of cardiorespiratory arrest in children | SGD | | |
| | PE27.5 | Describe the etio-pathogenesis, clinical approach and management of Shock in children | SGD | | |
| | PE27.6 | Describe the etio-pathogenesis, clinical approach and management of Status epilepticus | | | |
| | PE27.7 | Describe the etio-pathogenesis, clinical approach and management of an unconscious child | SGD | | |
| | PE27.8 | Discuss the common types, clinical presentations and management of poisoning in children | | | |
| | PE27.11 | Explain the need and process of triage of sick children brought to health facility | SGD | | |
| | PE27.12 | Enumerate emergency signs and priority signs | | | |
| | PE27.13 | List the sequential approach of assessment of emergency and priority signs | | | |
| | PE27.24 | Monitoring and maintaining temperature: define hypothermia. Describe the clinical features, complications and management of Hypothermia | SGD | | |
| | PE27.25 | Describe the advantages and correct method of keeping an infant warm by skin to skin contact | | | |
| | PE27.26 | Describe the environmental measures to maintain temperature | SGD | | |
| | PE27.27 | Assess for hypothermia and maintain temperature | | | |
| | PE27.28 | Provide BLS for children in manikin | | | |

| | | | |
|--|--|---|-----|
| | PE27.30 | Demonstrate confidentiality with regard to abuse | SGD |
| | PE27.31 | Assess child for signs of abuse | |
| | PE27.32 | Counsel parents of dangerously ill / terminally ill child to break a bad news | SGD |
| | PE27.33 | Obtain Informed Consent | |
| | PE27.34 | Willing to be a part of the ER team | |
| | PE27.35 | Attends to emergency calls promptly | |
| Systemic Pediatrics-Central Nervous system | | | |
| 90 | PE30.4 | Discuss the etio-pathogenesis, classification, clinical features, and management of Microcephaly in children | SGD |
| | PE30.5 | Enumerate the Neural tube defects. Discuss the causes, clinical features, types, and management of Neural Tube defect | |
| | PE30.6 | Discuss the etio-pathogenesis, clinical features, and management of Infantile hemiplegia | SGD |
| | PE30.7 | Discuss the etio-pathogenesis, clinical features, complications and management of Febrile seizures in children | SGD |
| | PE30.13 | Discuss the etio-pathogenesis, clinical features, management and prevention of Poliomyelitis in children | SGD |
| | PE30.14 | Discuss the etio-pathogenesis, clinical features and management of Duchene muscular dystrophy | |
| | PE30.15 | Discuss the etio-pathogenesis, clinical features and management of Ataxia in children | SGD |
| | PE30.16 | Discuss the approach to and management of a child with headache | |
| | PE30.20 | Interpret and explain the findings in a CSF analysis | SGD |
| PE30.23 | Perform in a mannequin lumbar puncture. Discuss the indications, contraindication of the procedure | | |
| Allergic Rhinitis , Atopic Dermatitis, Bronchial Asthma , Urticaria Angioedema | | | |
| 91 | PE31.1 | Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children | SGD |
| | PE31.2 | Recognize the clinical signs of Allergic Rhinitis | |
| | PE31.3 | Describe the etio-pathogenesis, clinical features and management of Atopic dermatitis in Children | |
| | PE31.12 | Discuss the etio-pathogenesis, clinical features and complications and management of Urticaria | |
| | | Angioedema | |
| | PE31.9 | Interpret CBC and CX Ray in Asthma | SGD |
| | PE31.10 | Enumerate the indications for PFT | |
| | PE31.11 | Observe administration of Nebulisation | |
| Chromosomal Abnormalities | | | |

| | | | |
|---------------|---------|--|-----|
| 92 | PE32.1 | Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Down’s Syndrome | SGD |
| | PE32.6 | Discuss the genetic basis, risk factors, clinical features, complications, prenatal diagnosis, management and genetic counselling in Turner’s Syndrome | SGD |
| | PE32.11 | Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Klinefelter Syndrome | |
| Endocrinology | | | |
| 93 | PE33.2 | Recognize the clinical signs of Hypothyroidism and refer | SGD |
| | PE33.3 | Interpret and explain neonatal thyroid screening report | |
| | PE33.8 | Define precocious and delayed Puberty | SGD |
| | PE33.9 | Perform Sexual Maturity Rating (SMR) and interpret | |
| | PE33.10 | Recognize precocious and delayed Puberty and refer | |
| | PE33.11 | Identify deviations in growth and plan appropriate referral | |

3rd MBBS Part II SDL 2020-2021 for the Department of Pediatrics Total :30 hrs

| SL no | Topic code | Topic | Method of teaching |
|---|------------|---|--------------------|
| Common problems related to Development -1 (Developmental delay , Cerebral palsy) | | | |
| 94 | PE3.5 | Discuss the role of the child developmental unit in management of developmental delay | Seminar |
| Obesity in children | | | |
| 95 | PE11.1 | Describe the common etiology, clinical features and management of obesity in children | Seminar |
| | PE11.2 | Discuss the risk approach for obesity and discuss the prevention strategies | |
| | PE11.6 | Discuss criteria for referral | |
| | PE12.6 | Discuss the RDA, dietary sources of Vitamin D and their role in health and disease | |
| | PE12.7 | Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin D (Rickets and Hypervitaminosis D) | |
| | PE12.10 | Discuss the role of screening for Vitamin D deficiency | |
| | PE12.11 | Discuss the RDA, dietary sources of Vitamin E and their role in health and disease | |
| | PE12.12 | Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin E | |
| | PE12.13 | Discuss the RDA, dietary sources of Vitamin K and their role in health and disease | |

| | | | |
|--|---------|--|---------|
| 96 | PE12.14 | Describe the causes, clinical features, diagnosis management and prevention of deficiency of Vitamin K | Seminar |
| | PE12.15 | Discuss the RDA, dietary sources of Vitamin B and their role in health and disease | |
| | PE12.16 | Describe the causes, clinical features, diagnosis and management of deficiency of B complex Vitamins | |
| | PE12.17 | Identify the clinical features of Vitamin B complex deficiency | |
| | PE12.18 | Diagnose patients with Vitamin B complex deficiency and plan management | |
| | PE12.19 | Discuss the RDA , dietary sources of Vitamin C and their role in Health and disease | |
| | PE12.20 | Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin C (scurvy) | |
| Micronutrients in Health and disease -2: Iron, Iodine, Calcium, Magnesium | | | |
| 97 | PE13.7 | Discuss the RDA , dietary sources of Iodine and their role in Health and disease | Seminar |
| | PE13.8 | Describe the causes, diagnosis and management of deficiency of Iodine | |
| | PE13.9 | Identify the clinical features of Iodine deficiency disorders | |
| | PE13.10 | Discuss the National Goiter Control program and their recommendations | |
| | PE13.11 | Discuss the RDA, dietary sources of Calcium and their role in health and disease | Seminar |

| | | | |
|---|----------|--|---------|
| | PE13.12 | Describe the causes, clinical features, diagnosis and management of Ca Deficiency | |
| | PE13.13 | Discuss the RDA, dietary sources of Magnesium and their role in health and disease | |
| | PE13.14 | Describe the causes, clinical features, diagnosis and management of Magnesium Deficiency | |
| Acute and chronic liver disorders | | | |
| 98 | PE26.12 | Discuss the prevention of Hep B infection – Universal precautions and Immunisation | SGD |
| | PE26.13 | Counsel and educate patients and their family appropriately on liver diseases | |
| Toxic elements and free radicals and oxygen toxicity | | | |
| 99 | PE14.1 | Discuss the risk factors, clinical features, diagnosis and management of Lead Poisoning | Seminar |
| | PE14.2 | Discuss the risk factors, clinical features, diagnosis and management of Kerosene ingestion | |
| | PE14.3 | Discuss the risk factors, clinical features, diagnosis and management of Organophosphorous poisoning | |
| | PE14.4 | Discuss the risk factors, clinical features, diagnosis and management of paracetamol poisoning | |
| | PE14.5 | Discuss the risk factors, clinical features, diagnosis and management of Oxygen toxicity | |
| Pediatric Emergencies – Common Pediatric Emergencies | | | |
| 100 | PE.27.29 | Discuss the common causes, clinical presentation, medico-legal implications of abuse | Seminar |

| 3rd MBBS Part II Clinical Posting for the Department of Pediatrics Total:(5weeks, 6days per week) | | | |
|---|------------|--|--------------------|
| Clinical Posting | | | |
| SL no | Topic code | Topic | Method of teaching |
| 101 | PE3.3 | Assessment of a child with developmental delay - Elicit document and present history | CP |
| | PE10.3 | Assessment of a patient with SAM and MAM, diagnosis, classification and planning management including hospital and community based intervention, rehabilitation and prevention | |
| | PE10.4 | Identify children with under nutrition as per IMNCI criteria and plan referral | |
| | PE10.5 | Counsel parents of children with SAM and MAM | |
| 102 | PE11.3 | Assessment of a child with obesity with regard to eliciting history including physical activity, charting and dietary recall | |

| | | | |
|--|--------|---|----|
| | PE11.4 | Examination including calculation of BMI, measurement of waist hip ratio, identifying external markers like acanthosis, striae, pseudogynaecomastia etc | CP |
|--|--------|---|----|

| | | | |
|-----|---------|---|----|
| | PE11.5 | Calculate BMI, document in BMI chart and interpret | |
| 103 | PE12.3 | Identify the clinical features of dietary deficiency / excess of Vitamin A | CP |
| | PE12.4 | Diagnose patients with Vitamin A deficiency, classify and plan management | |
| | PE12.8 | Identify the clinical features of dietary deficiency of Vitamin D | |
| | PE12.9 | Assess patients with Vitamin D deficiency, diagnose, classify and plan management | |
| | PE12.17 | Identify the clinical features of Vitamin B complex deficiency | |
| | PE12.18 | Diagnose patients with Vitamin B complex deficiency and plan management | |
| | PE12.21 | Identify the clinical features of Vitamin C deficiency | |
| 104 | PE13.3 | Identify the clinical features of dietary deficiency of Iron and make a diagnosis | CP |
| | PE13.4 | Interpret hemogram and Iron Panel | |
| | PE13.5 | Propose a management plan for Fe deficiency anaemia | |
| 105 | PE20.4 | Assessment of a normal neonate | CP |
| 106 | PE21.8 | Elicit, document and present a history pertaining to diseases of the Genitourinary tract | CP |
| | PE21.9 | Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Ichthyosis, anasarca | |
| | PE21.10 | Analyse symptom and interpret the physical findings and arrive at an appropriate provisional / differential diagnosis | |
| | PE21.11 | Perform and interpret the common analytes in a Urine examination | |
| | PE21.12 | Interpret report of Plain X Ray of KUB | |
| | PE21.13 | Enumerate the indications for and Interpret the written report of Ultra sonogram of KUB | |
| | PE21.16 | Counsel / educate a patient for referral appropriately | |
| 107 | PE27.23 | Assess for signs of severe dehydration | CP |
| 108 | PE30.17 | Elicit document and present an age appropriate history pertaining to the CNS | CP |
| | PE30.18 | Demonstrate the correct method for physical examination of CNS including identification of external markers. Document and present clinical findings | |
| | PE30.19 | Analyse symptoms and interpret physical findings and propose a provisional / differential diagnosis | |
| | PE30.21 | Enumerate the indication and discuss the limitations of EEG, CT, MRI | |
| | PE30.22 | Interpret the reports of EEG, CT, MRI | |

| | | | |
|-------------------|---------|---|------|
| 109 | PE31.2 | Recognize the clinical signs of Allergic Rhinitis | CP |
| | PE31.4 | Identify Atopic dermatitis and manage | |
| | PE31.6 | Recognise symptoms and signs of Asthma | |
| | PE31.7 | Develop a treatment plan for Asthma appropriate to clinical presentation & severity | |
| | PE31.8 | Enumerate criteria for referral | |
| | PE31.9 | Interpret CBC and CX Ray in Asthma | |
| | PE31.10 | Enumerate the indications for PFT | |
| 110 | PE32.2 | Identify the clinical features of Down's Syndrome | CP |
| | PE32.3 | Interpret normal Karyotype and recognize Trisomy 21 | |
| | PE32.5 | Counsel parents regarding 1. Present child 2. Risk in the next pregnancy | |
| | PE32.7 | Identify the clinical features of Turner Syndrome | CP |
| | PE32.8 | Interpret normal Karyotype and recognize the Turner Karyotype | |
| | PE32.10 | Counsel parents regarding 1. Present child 2. Risk in the next pregnancy | |
| | PE32.12 | Identify the clinical features of Klinefelter Syndrome | CP |
| | PE32.13 | Interpret normal Karyotype and recognize the Klinefelter Karyotype | |
| 111 | PE33.2 | Recognize the clinical signs of Hypothyroidism and refer | CP |
| | PE33.3 | Interpret and explain neonatal thyroid screening report | |
| | PE33.5 | Interpret Blood sugar reports and explain the diagnostic criteria for Type 1 Diabetes | |
| | PE33.6 | Perform and interpret Urine Dip Stick for Sugar | |
| | PE33.7 | Perform genital examination and recognize Ambiguous Genitalia and refer appropriately | CP |
| | PE33.9 | Perform Sexual Maturity Rating (SMR) and interpret | |
| | PE33.10 | Recognize precocious and delayed Puberty and refer | |
| | PE33.11 | Identify deviations in growth and plan appropriate referral | |
| Video/DOAP | | | |
| 112 | PE16.2 | Assess children <2 months using IMNCI Guidelines | DOAP |
| | PE16.3 | Assess children >2 to 5 years using IMNCI guidelines and Stratify Risk | |
| | PE20.18 | Identify and stratify risk in a sick neonate using IMNCI guidelines | |

| | | | |
|-----|---------|---|------|
| 113 | PE20.3 | Perform Neonatal resuscitation in a manikin | DOAP |
| | PE20.5 | Counsel / educate mothers on the care of neonates | |
| | PE20.6 | Explain the follow up care for neonates including Breast Feeding, Temperature maintenance, immunization, importance of growth monitoring and red flags | |
| 114 | PE27.14 | Assess emergency signs and prioritize | DOAP |
| | PE27.15 | Assess airway and breathing: recognise signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting | |
| | PE27.16 | Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment | |
| | PE27.17 | Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate | |
| | PE27.18 | Assess airway and breathing: perform assisted ventilation by Bag and mask in a simulated environment | |
| | PE27.19 | Check for signs of shock i.e. pulse, Blood pressure, CRT | DOAP |
| | PE27.20 | Secure an IV access in a simulated environment | |
| | PE27.21 | Choose the type of fluid and calculate the fluid requirement in shock | |
| | PE27.22 | Assess level of consciousness & provide emergency treatment to a child with convulsions/ coma - Position an unconscious child - Position a child with suspected trauma - Administer IV/per rectal Diazepam for a convulsing child in a simulated environment | |
| | PE27.30 | Demonstrate confidentiality with regard to abuse | DOAP |
| | PE27.31 | Assess child for signs of abuse | |
| | PE27.32 | Counsel parents of dangerously ill / terminally ill child to break a bad news | |
| | PE27.33 | Obtain Informed Consent | |
| | PE27.34 | Willing to be a part of the ER team | |

| | | | |
|------------------|---------|--|----|
| | PE27.35 | Attends to emergency calls promptly | |
| Skill lab | | | |
| 115 | PE15.6 | Demonstrate the steps of inserting an IV cannula in a model | SL |
| | PE15.7 | Demonstrate the steps of inserting an interosseous line in a mannequin | |
| 116 | PE27.27 | Assess for hypothermia and maintain temperature | SL |
| | PE27.28 | Provide BLS for children in manikin | |
| | PE29.17 | Demonstrate performance of bone marrow aspiration in manikin | |

AETCOM

| | | |
|-------------|------|--|
| Paediatrics | 4.9A | The student should be able to : identify discuss and defend medico legal, socio cultural, professional and ethical issues pertaining to medical negligence |
| | 4.9B | The student should be able to: identify, discuss and defend medico legal, socio – cultural, professional and ethical issues pertaining to malpractice |

Summary of course content, teaching and learning methods and student assessment for the undergraduate (MBBS) Curriculum in Paediatrics

Course content

The course content has been given in detail in the above Table, which includes competencies, specific learning objectives for each competencies and the suggested Teaching-Learning methods and assessment methods. The competencies have been developed by an expert group nominated by NMC, while the SLOs, T-L methods and assessments methods have been written by the expert committee constituted by Rajiv Gandhi University of Health Sciences, with inputs taken from IAP Taskforce.

Teaching-Learning methods and Time allotted

| | Clinics | Lectures | Small group discussion | Self – Directed learning | Total |
|----------------------------------|---|----------|------------------------|--------------------------|-------|
| Professional Year-II | 4weeks (3 hours per day, 6days a week) | - | - | - | - |
| Professor year-III Part-I | 4 weeks (3 hours per day 6days a week) | 25 | 30 | 10 | 65 |
| Professional year –III part – II | 5weeks (3hours per day, 6days a week | 30 | 60 | 30 | 120 |

Teaching-learning methods shall be learner centric and shall predominantly include small group learning, interactive teaching methods and case-based learning. Didactic lectures not to exceed one-third of the total teaching time. The teaching learning activity focus should be on application of knowledge rather than acquisition of knowledge.

The curricular contents shall be vertically and horizontally aligned and integrated to the

maximum extent possible to enhance learner's interest and eliminate redundancy and

Overlap. Integration allows the student to understand the structural basis of paediatric problems, their management and correlation with function, rehabilitation and quality of life. Acquisition and certification of skills shall be through experiences in patient care, diagnostic and skill laboratories. Use of skill lab to train undergraduates is desirable. Newer T-L method like Learner-doctor method (Clinical clerkship) should be mandatorily implemented, from 1st clinical postings itself.

The goal of this type of T-L activity is to provide learners with experience in longitudinal patient care, being part of the health care team, and participate in hands-on care of patients in outpatient and inpatient setting. During the 1st clinical postings, the students are oriented to the working of the department. During the subsequent clinical

the hospital, participating in that patient's care including case work-up, following-up on investigations, presenting patient findings on rounds, observing procedures, if any, till patient is discharged.

The development of ethical values and overall professional growth as integral part of curriculum shall be emphasized through a structured longitudinal and dedicated programme on professional development including attitude, ethics, and communication which is called the AETCOM module. The purpose is to help the students apply principles of bioethics, system based care, apply empathy and other human values in patient care, communicate effectively with patients and relatives and to become a professional who exhibits all these values. This will be a longitudinal programme spread across the continuum of the MBBS programme including internship.

Assessment

Eligibility to appear for University examinations is dependent on fulfilling criteria in two main areas – attendance and internal assessment marks

Attendance

Attendance requirements are 75% in theory and 80% in clinical postings for eligibility to appear for the examinations in Paediatrics.

75% attendance in AETCOM Module is required for eligibility to appear for final examination in Professional year III part II.

Internal Assessment

Progress of the medical learner shall be documented through structured periodic assessment that includes formative and summative assessments. Logs of skill-based training shall be also maintained.

There shall be no less than three internal assessment examinations in Paediatrics. An end of posting clinical assessment shall be conducted for each of the Paediatric clinical postings.

Day to day records and logbook (including required skill certifications) should be given importance in internal assessment. Internal assessment should be based on competencies and skills.

Learners must secure at least 50% marks of the total marks (combined in theory and clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in Paediatrics in order to be eligible for appearing at the final University examination.

Internal assessment marks will reflect as separate head of passing at the summative examination.

The results of internal assessment should be displayed on the notice board within 1-2 weeks of the test.

Remedial measures should be offered to students who are either not able to score qualifying marks or have missed on some assessments due to any reason.

Learners must have completed the required certifiable competencies for that phase of training and Paediatric logbook entry completed to be eligible for appearing at the final

AETCOM assessment will include: (a) Written tests comprising of short notes and creative writing experiences, (b) OSCE based clinical scenarios / viva voce.

University examinations

University exam shall be held at the end of Professional year III part II of training (Final year MBBS) in the subjects of Paediatrics, General Medicine, Obstetrics and gynaecology and General Surgery.

University examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary knowledge, minimal level of skills, ethical and professional values with clear concepts of the fundamentals which are necessary for him/her to function effectively and appropriately as a physician of first contact.

Assessment shall be carried out on an objective basis to the extent possible.

Marks allotted:

Eligibility to appear for University Examination

| | |
|-------------------------------|--|
| Attendance Eligibility | 75% in theory and 80% in practical in each subject and in each professional year |
| Internal Assessment | Learners must secure at least 50% marks of the total marks (combined in theory and practical / clinical not less than 40 % marks in theory and practical separately) |

Examination

a. Assessment method of theory

1st PCT practical/First ward leaving examination-100
2nd PCT practical / Second ward leaving examination-100
Prelims practical-100
Home assignment -10
Continuous class test –LMS-25
Seminar -10
Museum study -10
Library assignement -10
Attendance -10
Total -375

b. Assessment method of practical

1st PCT practical/First ward leaving examination-100
2nd PCT practical / Second ward leaving examination-100
Prelims practical-100
Certificate skill based competencies-100
AETCOM-30
SVL lab activity-50
Research-20
Journal-40
Attendance-10
Total-500

University examination Theory

Examination

Theory examination consists of one paper- 100 marks.

Question paper pattern

Theory question paper pattern for 100 marks for a duration of 3 hours

| | | |
|---|--------|------------|
| MCQ (15 Direct & 5 Case Based): | 20 X 1 | = 20 marks |
| Long Answer Question: Direct/Case Based Essay: | 2 X 15 | = 30 marks |
| Short Answer Question (SAQ): | 10 X 5 | = 50 marks |

Topics and marks distribution matrix for PAPER

| S. No | TOPICS | MCI Competency Number | LAQ | SAQ |
|-------|---|-----------------------|-----|-----|
| 1 | General Pediatrics including infections | 1.1 – 15.7 | ✓ | ✓ |
| 2 | Newborn | 20.1 – 20.20 | ✓ | ✓ |
| 4 | Community Pediatrics | 16.1 – 19.16 | ✓ | ✓ |
| 5 | Systemic Pediatrics -I | 21.1 – 29.12 | ✓ | ✓ |
| 6 | Systemic Pediatrics - II | 30.1 – 36.1 | ✓ | ✓ |

Practical Syllabus

Distribution of Marks for Practical Examinations

Practical examination will be conducted under heads of Practical examination and Viva Voce.

| | | |
|----|-------------------------------|-------------------|
| 1. | Practical Examination | (80 marks) |
| | PAEDIATRIC (CASE) | 40 |
| | NEW BORN | 20 |
| | OSCE (OBSERVED / UNOBSERVED) | 20 |
| 2 | Viva –Voce Examination | (20 marks) |
| | X-RAYS | 5 |
| | INSTRUMENT | 5 |
| | NUTRITION | 5 |
| | DRUGS & VACCINES | 5 |
| | TOTAL MARKS | 100 MARKS |

| | Maximum Marks | Passing minimum in each component | Passing Criteria (Theory & Practical) |
|------------------|---------------|-----------------------------------|---|
| Theory | 100 | 50 | 100 [Mandatory 50% marks in theory and practical (practical = practical/ clinical + viva) [theory=theory paper(s)only] |
| Practical + viva | 100 | 50 | |

The theory paper should include different types such as structured essays, short essays, Short Answers Questions (SAQ) and MCQs (Multiple Choice Questions). Marks for each part should be indicated separately.

All the question papers to follow the suggested **blueprint**(APPENDIX 1). It is desirable that the marks allotted to a particular topic are adhered to.

A minimum of **80%** of the marks should be from the **must know (core)** component of the curriculum. A maximum of **20%** can be from the **desirable to know** component.

All **main essay questions** to be from the **must know component** of the curriculum.

Main essay questions to be of the **modified variety** containing a clinical case scenario. At least 30% of questions should be clinical case scenario based. Questions to be constructed to test higher cognitive levels.

Clinical examinations will be conducted in the hospital wards. Clinical cases kept in the examination must be common conditions that the learner may encounter as a physician of first contact in the community. Selection of rare syndromes and disorders asexamination cases is to be discouraged. Emphasis should be on candidate's capability to elicit history, demonstrate physical signs, write a case record, analyze the case and develop a management plan.

Viva/oral examination should assess approach to patient management, emergencies, attitudinal, ethical and professional values. Candidate's skill in interpretation of common investigative data, X-rays, identification of specimens, ECG, etc. is to be also assessed.

At least one question in each paper of the clinical specialties in the University examination should test knowledge competencies acquired during the professional development programme. Skill competencies acquired during the Professional Development Programme must be tested during the clinical, practical and viva voce.

Pass criteria

Internal Assessment: 50% combined in theory and practical (not less than 40% in each) for eligibility for appearing for University Examinations

University Examination: Mandatory 50% marks separately in theory and clinicals (clinicals = clinical + viva)

APPENDIX 1: Blueprint for Paediatric theory Examinations

| Topics | Marks allotted |
|---|----------------|
| Growth, development & Adolescent health • Nutrition and micronutrients | 15 |
| Neonatology | 10 |
| Fluid & Electrolytes | 3 |
| • Immunity & Immunization • Infections & Infestation | 15 |
| Gastrointestinal system | 5 |
| Hematology including malignancies | 10 |
| • Respiratory system • Cardiovascular system | 15 |
| Endocrine, metabolic & genetic Disorders | 3 |
| Central Nervous system, neuromuscular disorders | 10 |
| Disorders of kidney & urinary Tract | 5 |
| Pediatric emergencies | 3 |
| Miscellaneous – Eye, ENT, skin, Rheumatology, Psychiatry & social paediatrics | 6 |
| Total | 100 |

Sample Paediatrics Question Paper**Paediatrics Paper –MBBS , Phase III Part 2****Time: 3 hours****Marks: 100****Your answers should be specific to the questions asked.**

Draw neat, labelled diagrams wherever necessary.

Long essays (2 X 15 = 30 marks)

1. 5 year old female child from presented with 3 days history of periorbital oedema and anasarca. There was no fever or other complaints. On Examination, Vitals were normal and systemic examination was non contributory. Discuss the differential diagnosis and justify the most probable diagnosis. Write a note on management
2. A 3 month old boy was brought to the emergency room with complaints of fever for the last 2 days, cough and respiratory distress for the last 24 hour. Discuss the differential diagnosis and justify the most likely diagnosis. Add a note on management.

Short essays (10x5=40marks)

3. A term male baby delivered by caesarean section developed fast breathing soon after birth and was taken to the NICU. There was history of meconium stained liquor
. On examination, respiratory rate was 80/min. with retractions and grunting. Discuss the causes for distress in this newborn.
 4. 4 year old girl presented with epistaxis of one day duration. On examination she was afebrile, echymotic patches were seen over lower limbs and trunk, otherwise clinical examination was unremarkable. How do you approach and manage this child ?
 5. Complicated malaria
 6. Clinical features and management of hypothyroidism
 7. Management of cyanotic spell
 8. Define failure to thrive and outline management
 9. WHO classification of vitamin A deficiency
 10. Nocturnal enuresis
 11. Age independent anthropometric indices
 12. HPV vaccine – Age and schedule
-

Multiple choice questions (20x1=20marks, with no negative marking)

- 1) Which blood group is used for exchange transfusion
 - A) O positive
 - B) O negative
 - C) AB positive
 - D) AB negative
- 2) Anterior fontanelle is closed at
 - A) less than 3 months
 - B) 12 months
 - C) 12-18 months
 - D) <3 years
- 3) Bronchiolitis is commonly caused by
 - A) Respiratory syncytial virus
 - B) Adeno virus
 - C) Influenza virus
 - D) Rhinovirus
- 4) Differential cyanosis occurs in
 - A) PDA
 - B) TGA
 - C) TOF
 - D) ASD
- 5) All are symptoms of CCF in infant except
 - A) Diaphoresis
 - B) Cold extremities
 - C) Reduced urine output
 - D) Pallor
- 6) Anti infective factors available in breast milk are all except
 - A) Lactoferrin
 - B) Bifidus factor
 - C) PABA
 - D) DHA
- 7) Congestive heart failure in fetus is caused by all except
 - A) Severe anemia
 - B) VSD
 - C) Supraventricular Tachycardia
 - D) Complete heart block
- 8) Red flag sign in child development if not attained
 - A) Vocalization at 2 months
 - B) Walking at 12 months
 - C) Single word at 12 months
 - D) Social smile at 3 months
- 9) Vesicoureteric reflex is commonly diagnosed by
 - A) MCUG
 - B) USG
 - C) DMSA
 - D) DTPA
- 10) Nephrotic range proteinuria
 - A) Urine protein creatinine ratio >2
 - B) Proteinuria >3.5gm/24hr
 - C) >40 mg /m2/hr
 - D) All of the above

11. While examining 2 days old infant, small vesicles on erythematous base are noted on face and chest. Wright stain of the lesions revealed sheets of Eosinophils. Diagnosis of this rash is
- A) miliaria rubra
 - B) milia
 - C) neonatal acne
 - D) erythema toxicum
12. A 2 year old, active, asymptomatic boy is examined by a physician for the first time. His blood pressure is 130/86 in the right arm with a barely palpable right femoral pulse. The most likely diagnosis is
- A) Coarctation of aorta
 - B) Tetralogy of Fallot
 - C) Aortic stenosis
 - D) Pulmonary stenosis
13. Which of the following hemolytic anemias is associated with an extracorporeal defect?
- A) Hereditary spherocytosis
 - B) Sickle cell anemia
 - C) Autoimmune hemolytic anemia
 - D) Glucose-6-phosphate dehydrogenase (G6PD) deficiency
14. Calorie requirement in a 3 year old is (kcal/day)
- A) 1000
 - B) 1100
 - C) 1200
 - D) 1300
15. A 6 week old infant presents with a history of noisy breathing. The noise was first noted shortly after birth, is inspiratory in nature, is worse now that the infant has a viral respiratory illness, and remits almost completely when the child is asleep. The most likely etiology of this child's noisy breathing is
-

- A) asthma
- B) bronchopulmonary dysplasia
- C) cystic fibrosis
- D) laryngomalacia

16. A 10 year old develops nephrotic syndrome. Several urinalyses reveal the presence of red blood cell casts. The creatinine is 2.8 mg/dl and the blood pressure is 146/96 mm Hg. The next best course of action is

- A) begin a course of oral prednisone
- B) follow the child and see if the nephrotic syndrome resolves
- C) perform a diagnostic renal biopsy
- D) collect a 24 hour urine for creatinine clearance and protein excretion

17. All the following conditions are characterized by hypochromic, microcytic red cells EXCEPT

- A) iron deficiency anemia
- B) thalassemia major
- C) glucose-6-phosphate dehydrogenase
- D) anemia of chronic disease

18. Drug used for treatment of autonomic storm due to scorpion sting is

- A) Adrenaline
- B) Propranolol
- C) Prazosin
- D) Noradrenaline

19. An 8 month old girl is noted to have asymmetric use of her arms. The right arm is held in a flexed position with the hand in a fist. The neurologic examination also reveals increased tone in the right ankle and hyper reflexia on the right side. The past history is significant for premature delivery at 28 weeks gestation. The most likely diagnosis for this child is

- a) Duchenne muscular dystrophy
- b) Spinomuscular atrophy
- c) Brachial palsy
- d) Cerebral palsy

20. 2 year old child was brought with history of fever, cough and cold for 1 day and 1 episode of generalized tonic clonic seizure. Temperature was 102°F. What

- a) Duration of seizure
- b) Any features suggestive of meningitis
- c) Is she developmentally normal?
- d) All of the above

Theory and practical assessment marks as per table provided by NMC

a. Assessment method of theory

| S. N O | Roll nO | Name of the student | 1 st PCT practical/First ward leaving examination | 2 nd PCT practical / Second ward leaving examination | Prelims practical | Home assignment | Continuous class test (LMS) | Seminar | Museum study | Library assignment | Attendance theory | Total |
|--------|---------|---------------------|--|---|-------------------|-----------------|-----------------------------|---------|--------------|--------------------|-------------------|-------|
| | | | 100 | 100 | 100 | 10 | 25 | 10 | 10 | 10 | 10 | 375 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

b. Assessment method of practical

| | | | Formative assessment | | | Continuous internal assessment | | | | | | |
|-------|----------|---------|--|---|-------------------|--------------------------------------|----------|------------------|----------|---------|------------|-------|
| | | | | | | Long book (150) | | | | | | |
| S. No | Roll. No | Student | 1 st PCT practical/First ward leaving examination | 2 nd PCT practical / Second ward leaving examination | Prelims practical | Certificate skill based competencies | AET CO M | SVL lab activity | Research | Journal | Attendance | Total |
| | | | 100 | 100 | 100 | 60 | 30 | 50 | 20 | 40 | 10 | 500 |

Department of Orthopedics

COURSE DESCRIPTION

GOAL:

The broad goal of the teaching of undergraduate students in orthopedics is to enable them capable of delivering efficient first contact orthopedic care.

COMPETENCIES:

The student must demonstrate:

1. Ability to recognize and assess bone injuries, dislocation and poly-trauma and provide first Contact care prior to appropriate referral,
2. Knowledge of the medico-legal aspects of trauma,
3. Ability to recognize and manage common infections of bone and joints in the primary care Setting,
4. Recognize common congenital, metabolic, neoplastic, degenerative and inflammatory bone Diseases and refer appropriately,
5. Ability to perform simple orthopaedic techniques as applicable to a primary care setting,
6. Ability to recommend rehabilitative services for common orthopaedic problems across all Ages.

Integration: The teaching should be aligned and integrated horizontally and vertically in order to allow the student to understand the structural basis of orthopaedic problems, their management and correlation with function, rehabilitation and quality of life.

COURSE OUTCOMES

At the end of the course, the learner shall be able to:

A. Knowledge

The student shall be able to:

1. Explain the principles of recognition of bone injuries and dislocations;
2. Apply suitable methods to detect and managed common infections of bones and joints;
3. Identify congenital, skeletal anomalies and their referral for appropriate correction or rehabilitation;
4. Recognize metabolic bone diseases as seen in this country;
5. Explain etiology, pathogenesis, manifestations, and diagnosis of neoplasm affecting bones
6. Enumerate few recent advances in Orthopaedics.

B. Skills

1. Detect sprains and deliver first aid measures for common fractures and sprains and manage Uncomplicated fractures of clavicle, Colle's fracture, and phalanges fractures;
2. Use technique of splinting, plaster, and immobilization;
3. Manage common bone infections
4. Describe indications for sequestrectomy, amputations & corrective measures for bone deformities;
5. Advice aspects of rehabilitation for polio, cerebral palsy and amputation

C. Application

Be able to perform certain orthopaedics skills, provide sound advice of skeletal and related conditions at primary OR secondary health care level.

ORTHOPAEDICS

Total teaching hours for MBBS Third Professional year (Part I)

| Subject | Lecture (hours) | Tutorials/Seminars/Integrated teaching (hours) | Self-Directed Learning (hours) | Clinical Posting (hours) | Skill lab (hours) | Total |
|---------------------|----------------------------|---|---|---|------------------------------|--------------|
| Orthopaedics | 15 | 20 | 5 | 60 | 12 | 112 |

The clinical postings in third professional part I shall be 18hours per week (3hours per day from Monday to Saturday)

Atleast 3hours of clinical instruction each week must be allotted to training in clinical and procedural skill laboratories

Orthopaedics topics for MBBS Third Professional year (Part I)

| SL. NO. | TOPIC | Lectures (hours) | Tutorials/Seminars/ Integrated teaching (hours) |
|----------------|------------------------------------|-----------------------------|--|
| 1. | SKELETAL TRAUMA, POLYTRAUMA | 1 | 3 |
| 2. | FRACTURES | 9 | 12 |
| 3. | MUSCULOSKELETAL INFECTION | 3 | 3 |
| 4. | SKELETAL TUBERCULOSIS | 2 | 2 |

COURSE CONTENTS:

OR 1.1- Competency as represented in the MCI Competency Based Undergraduate Curriculum for the Indian Medical Graduate Volume – III 2018, where first two alphabets OR represents subject Orthopaedics and number following alphabet reflects topic number.

THEORY

| Topics | Number | COMPETENCIES | Domain K/S/A/ C | Level K/K H/SH /P | Core | Suggested Teaching Learning method | Suggested Assessment method | Vertical Integration(VI) | Horizontal Integration(HI) |
|------------------------------------|--------|--|-----------------------|----------------------------|------|--|-----------------------------------|-----------------------------|-------------------------------|
| SKELETAL TRAUMA, POLYTRAUMA | OR1.1 | Describe and discuss the Principles of pre-hospital care and Casualty management of a trauma victim including principles of triage | K | KH | Y | Lecture / Small group discussion | Written and VivaVoice | ----- | ----- |
| | OR1.2 | Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of shock | K | KH | Y | Lecture | Written and VivaVoice | ----- | ----- |
| | OR1.3 | Describe and discuss the aetiopathogenesis, clinical features, investigations | K | KH | Y | Lecture / Small group discussion | Written and VivaVoice | ----- | ----- |
| | | s, and principles of management of soft tissue injuries | | | | | | | |
| | OR1.4 | Describe and discuss the Principles of management of soft tissue | K | KH | Y | Lecture / Small group | Written and VivaVoice | ----- | ----- |

| | | | | | | | | | |
|------------------|-------|---|-----|----|---|----------------------------------|-----------------------|-------|-------|
| | | injuries | | | | discussion | ce | | |
| | OR1.5 | Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of dislocation of major joints, shoulder, knee, hip | K | KH | Y | Lecture / Bed side clinic | Written and VivaVoice | ----- | ----- |
| | OR1.6 | Participate as a member in the team for closed reduction of shoulder dislocation / hip dislocation / knee dislocation | K/S | SH | Y | Simulation/DO AP Session | Written and VivaVoice | ----- | ----- |
| FRACTURES | OR2.1 | Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fracture of clavicle | K | KH | Y | Lecture | Written and VivaVoice | ----- | ----- |
| | OR2.2 | Describe and discuss the mechanism of Injury, clinical features, | K | KH | Y | Lecture | Written and VivaVoice | ----- | ----- |
| | | investigations and plan management of fractures of proximal humerus | | | | | | | |
| | OR2.3 | Select, prescribe and communicate appropriate medications for relief of | K | KH | Y | Lecture / Small group discussion | Written and VivaVoice | ----- | ----- |

| | | | | | | | | | |
|--|-------|--|---|----|---|---|-----------------------|-------|-------|
| | | joint pain | | | | on/ Bed side clinic | | | |
| | OR2.4 | Describe and discuss the mechanism of injury, clinical features, investigations and principles of management of fracture of shaft of humerus and intercondylar fracture humerus with emphasis on neurovascular deficit | K | KH | Y | Lecture / Small group discussion/ Bed side clinic | Written and VivaVoice | ----- | ----- |
| | OR2.5 | Describe and discuss the aetiopathogenesis, clinical features, mechanism of injury, investigation & principles of management of fractures of both bones forearm and Galeazzi and Monteggia injury | K | KH | Y | Lecture / Small group discussion(X2)/ Bed side clinic | Written and VivaVoice | ----- | ----- |
| | OR2.6 | Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of distal radius | K | KH | Y | Lecture / Bed side clinic | Written and VivaVoice | ----- | ----- |
| | OR2.7 | Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management | K | KH | Y | Lecture | Written and VivaVoice | ----- | ----- |

| | | | | | | | | | |
|--|--------|--|---|----|---|---|-----------------------|-------|-------|
| | | of pelvic injuries with emphasis on hemodynamic instability | | | | | | | |
| | OR2.8 | Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of spine injuries with emphasis on mobilisation of the patient | K | KH | Y | Lecture | Written and VivaVoice | ----- | ----- |
| | OR2.9 | Describe and discuss the mechanism of injury, Clinical features, investigations and principle of management of acetabular fracture | K | KH | Y | Lecture | Written and VivaVoice | ----- | ----- |
| | OR2.10 | Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of proximal femur | K | KH | Y | Lecture / Small group discussion/ Bed side clinic | Written and VivaVoice | ----- | ----- |
| | OR2.11 | Describe and discuss the aetiopathogenesis, mechanism | K | KH | Y | Lecture / Small group discussion / | Written and VivaVoice | ----- | ----- |
| | | of injury, | | | | on / | ce | | |

| | | | | | | | | | |
|--|--------|--|---|----|---|----------------------------------|-----------------------|-------|-------|
| | | clinical features, investigations and principles of management of (a)Fracture patella (b) Fracture distal femur (c) Fracture proximal tibia with special focus on neurovascular injury and compartment syndrome | | | | Bed side clinic | | | |
| | OR2.12 | Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of Fracture shaft of femur in all age groups and the recognition and management of fat embolism as a complication | K | KH | Y | Lecture / Small group discussion | Written and VivaVoice | ----- | ----- |
| | OR2.13 | Describe and discuss the aetiopathogenesis, clinical features, Investigation and principles of management of: (a) Fracture both bones leg (b) Calcaneus (c) Small bones of foot | K | KH | Y | Lecture / Small group discussion | Written and VivaVoice | ----- | ----- |
| | OR2.14 | Describe and discuss the aetiopathogenesis, clinical | K | KH | Y | Lecture / Small group | Written and VivaVoice | ----- | ----- |

| | | | | | | | | | |
|----------------------------------|--------|--|---|----|---|---|----------------------|------------|-------|
| | | features, Investigation and principles of management of ankle fractures | | | | discussion/ Bed side clinic | ce | | |
| | OR2.15 | Plan and interpret the investigations to diagnose complications of fractures like malunion, non-union, infection, compartmental syndrome | K | SH | Y | Lecture / Small group discussion/ Bed side clinic | Written and VivaVoce | ----- | ----- |
| | OR2.16 | Describe and discuss the mechanism of injury, clinical features, investigations and principles of management of open fractures with focus on secondary infection prevention and management | K | KH | Y | Lecture / Small group discussion/ Bed side clinic | Written and VivaVoce | ----- | ----- |
| MUSCULOSKELETAL INFECTION | OR3.1 | Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of Bone and Joint infections a) Acute Osteomyelitis b) Subacute osteomyelitis c) Acute Suppurative arthritis d) Septic arthritis & HIV infection e) Spirochaetal | K | KH | Y | Lecture / Small group discussion/ Bed side clinic | Written and VivaVoce | AN, MI,PA, | RD |

| | | | | | | | | | |
|------------------------------|-------|---|-----|----|---|---|-----------------------|-----------|-------|
| | | infection f) Skeletal Tuberculosis | | | | | | | |
| | OR3.2 | Participate as a member in team for aspiration of joints under supervision | K/S | SH | Y | Small group discussion/DOAP session | Written and VivaVoice | ----- | ----- |
| | OR3.3 | Participate as a member in team for procedures like drainage of abscess, sequestrectomy/ saucerisation and arthrotomy. | K/S | SH | Y | DOAP session | Written and VivaVoice | ----- | ----- |
| SKELETAL TUBERCULOSIS | OR4.1 | Describe and discuss the clinical features, Investigation and principles of management of Tuberculosis affecting major joints (Hip, Knee) including cold abscess and caries spine | K | KH | Y | Lecture / Small group discussion/ Bed side clinic | Written and VivaVoice | MI,PA, PH | RD |

* AN – Anatomy, PA - Pathology, PH – Pharmacology, RD - Radio diagnosis,

Theory: Competencies with Specific Learning Objectives (SLOs) and teaching learning methods (TLM)

| Section | Competencies with SLOs At the end of the course, Third professional part I MBBS student should be able to | Lecture15 | Seminar/Tutorials 20 | SDL 5 |
|------------------------------------|---|-----------|-------------------------|----------|
| SKELETAL TRAUMA, POLYTRAUMA | OR1.1 Describe and discuss the Principles of pre-hospital care and Casualty management of a trauma victim including principles of triage | | | |

| | | | | |
|--|--|---|---|---|
| | 1-Describe the principles of field triage? 2-Define the zones of triage and describe its principles? 3-Describe the principles of first aid? 4-Demonstrate the principles of prevention of blood loss in a trauma victim? 5-Demonstrate the principles of stabilization of spine and transport of accident victim? 6-Demonstrate the principles of splinting the injured upper and lower limb? | | ✓ | - |
| | OR1.2 Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of shock | | | |
| | 1-Define shock? 2-Mention the types of shock? 3-Describe the etiopathogenesis of the shock? 4-Describe the clinical features and management of haemorrhagic shock? | ✓ | | |
| | OR1.3 Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of soft tissue injuries | | | |
| | 1-Describe the types of soft tissue injury? 2-Describe ligament injuries and muscle injuries? 3-Describe open and closed injuries? 4-Discuss the importance of soft tissue injuries on fractures? | | ✓ | |
| | OR1.4 Describe and discuss the Principles of management of soft tissue injuries | | | |
| | 1-Describe the types of soft tissue injury? 2-Describe ligament injuries and muscle injuries? 3-Describe open and closed injuries? 4-Discuss the importance of soft tissue injuries on fractures? | | | |
| | OR1.5 Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of dislocation of major joints, shoulder, knee, hip | | | |
| | 1-Define subluxation and dislocation? 2. Mention the types of shoulder joint dislocation? 3. Discuss the aetiopathogenesis of anterior & posterior shoulder dislocation? 4. Discuss the clinical features (signs & symptoms) of anterior & posterior shoulder dislocation? 5. Discuss the complications of shoulder joint dislocation? 6. Describe the reduction manoeuvre (Kocher's & Stimson's methods | | ✓ | |
| | OR1.6 Participate as a member in the team for closed reduction of shoulder dislocation / hip dislocation / knee dislocation | | | |

| | | | | |
|--|---|---|--|--|
| | 1. Mention the types of hip joint dislocation? 2. Discuss the aetiopathogenesis of posterior hip dislocation? 3. Discuss the clinical features (signs & symptoms) of posterior hip dislocation? 4. Discuss the complications of hip joint dislocation? 5. Describe the reduction manoeuvre of hip dislocation (Allis methods) | | | |
| | OR 2.1 Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fracture of clavicle | | | |
| | 1. Describe salient anatomical features of clavicle 2. Describe the mechanism of injury of fracture of clavicle 3. Describe clinical feature and investigations for a patient with clavicle fracture 4. Discuss the conservative and surgical management of clavicular fractures 5. Discuss the complications of clavicular fractures | ✓ | | |
| | OR 2.2 Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fractures of proximal humerus | | | |
| | 1. Describe the anatomy of proximal part of humerus and attachments of rotator cuff 2. Describe the blood supply of proximal humerus 3. Describe the i) clinical features and ii) radiological views for proximal humerus fractures 4. Discuss the i) conservative management ii) surgical management of fracture of proximal humerus | ✓ | | |
| | OR 2.3 Select, prescribe and communicate appropriate medications for relief of joint pain | | | |
| | 1. Mention the various causes of joint pain 2. Discuss the investigations in a patient with joint pain 3. Discuss the various drugs prescribed to a patient with joint pain 4. What are the different types of NSAIDs and its contraindications in orthopaedic pain management | | | |
| | 5. Mention the precautions to be taken while prescribing NSAIDs | | | |
| | OR 2.4 Describe and discuss the mechanism of injury, clinical features, investigations and principles of management of fracture of shaft of humerus and intercondylar fracture humerus with emphasis on neurovascular deficit | | | |

| | | | | |
|--|--|---|---|--|
| | 1. Describe the mechanism of injury in a patient with fracture shaft of humerus. 2. Discuss the clinical features and investigations in a patient with fracture shaft of humerus 3. Should be able to identify Holstein-Lewis fracture 4. Discuss the management of fracture shaft of humerus 5. Describe the mechanism of injury in a patient with intercondylar fracture of humerus. 6. Discuss the anatomy of distal end of humerus 7. Discuss the clinical features and investigations in a patient with intercondylar fracture of humerus 8. Discuss the management of intercondylar fracture of humerus | ✓ | | |
| | OR 2.5 Describe and discuss the aetiopathogenesis, clinical features, mechanism of injury, investigation & principles of management of fractures of both bones forearm and Galeazzi and Monteggia injury | | | |
| | 1. Describe the flexor muscles of forearm 2. Describe the mechanism of injury for both bone fracture of forearm 3. Define Galeazzi fracture the mechanism of injury for Galeazzi fracture 4. Define Monteggia fracture and describe the mechanism of injury for Monteggia fracture 5. Describe the clinical features and management for both bone fracture of forearm 6. Describe the clinical features and management for Galeazzi fracture 7. Describe the clinical features and management for Monteggia fracture | ✓ | | |
| | OR 2.6 Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of distal radius | | | |
| | 1. Enumerate the named fractures around the distal end of radius 2. Describe mechanism of injury of each fracture around distal end of radius 3. Define Colles fracture and discuss mechanism of injury 4. Mention the different types of displacement in Colles fracture 5. Discuss the clinical feature and investigations of Colles fracture 6. Discuss the conservative line of management and of Colles fracture | ✓ | ✓ | |
| | 7. Discuss the surgical line of management of Colles fracture 8. Enumerate the complications of Colles fracture | | | |
| | OR 2.7 Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of pelvic injuries with emphasis on hemodynamic instability | | | |

| | | | | |
|--|---|---|---|--|
| | 1. Describe the gross anatomy of pelvic bone 2. Describe the mechanism of pelvic injury and classify pelvic fracture 3. Describe the clinical features of pelvis injury 4. Discuss the investigations and management of pelvic injuries 5. Discuss the hemodynamic instability in pelvis injuries and its management | ✓ | ✓ | |
| | OR 2.8 Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of spine injuries with emphasis on mobilisation of the patient | | | |
| | 1. Describe the gross anatomy of spine 2. Describe the mechanism of spine injuries and classify spine fracture 3. Describe the clinical features of spine injuries 4. Discuss the investigations and management of spine injuries 5. Discuss the clinical features of spinal shock and its management 6. Discuss the complications of spine injuries | ✓ | | |
| | OR 2.9 Describe and discuss the mechanism of injury, Clinical features, investigations and principle of management of acetabular fracture | | | |
| | 1. Describe the gross anatomy of acetabulum 2. Describe the mechanism of acetabulum fracture and classify 3. Describe the clinical features of acetabulum fracture 4. Discuss the investigations and management of acetabulum fracture | ✓ | | |
| | OR 2.10 Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of proximal femur | | | |
| | a) 1. Describe the gross anatomy of proximal femur 2. Describe the mechanism of injury and classification of fracture neck of femur 3. Describe the clinical features of fracture neck of femur 4. Discuss the investigations and management of fracture neck of femur b) 1. Describe the gross anatomy of proximal femur 2. Describe the mechanism of injury and classification of Trochanteric fracture 3. Describe the clinical features of Trochanteric fracture 4. Discuss the investigations and management of Trochanteric fracture | ✓ | ✓ | |
| | fracture | | | |

| | | | | |
|--|---|---|---|--|
| | OR 2.11 Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of a)Fracture patella (b) Fracture distal femur (c) Fracture proximal tibia with special focus on neurovascular injury and compartment syndrome | | | |
| | a)1. Describe the anatomy of patella 2. Describe the mechanism of injury of patella bone fracture 3. Describe the clinical features of patella bone fracture 4. Discuss the investigations and management of patella bone fracture b)1. Describe the anatomy of distal femur 2. Describe the mechanism of injury of distal femur fracture 3. Describe the clinical features of distal femur fracture 4. Discuss the investigations and management of distal femur fracture c) 1. Describe the anatomy of proximal tibia 2. Describe the mechanism of injury of proximal tibia fracture 3. Describe the clinical features of proximal tibia fracture 4. Discuss the investigations and management of proximal tibia fracture 5. Discuss compartment syndrome with respect to proximal tibia fracture | ✓ | ✓ | |
| | OR 2.12 Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of Fracture shaft of femur in all age groups and the recognition and management of fat embolism as a complication | | | |
| | A) Paediatric femur bone 1. Describe the anatomy of paediatric femur bone 2. Describe the mechanism of injury of paediatric femur shaft fracture 3. Describe the clinical features of paediatric femur shaft fracture 4. Discuss the investigations and management of paediatric femur shaft fracture B) Adult femur bone 1. Describe the anatomy of adult femur bone 2. Describe the mechanism of injury of adult femur shaft fracture 3. Describe the clinical features of adult femur shaft fracture 4. Discuss the investigations and management of adult femur shaft fracture C) Fat embolism 1. Define fat embolism 2. Describe the aetiopathogenesis of fat embolism 3. Describe the clinical features of fat embolism 4. Discuss the investigations and management of fat embolism | ✓ | ✓ | |
| | | | | |

| | | | | |
|--|---|---|---|--|
| | OR 2.13 Describe and discuss the aetiopathogenesis, clinical features, Investigation and principles of management of: (a) Fracture both bones leg (b) Calcaneus (c) Small bones of foot | | | |
| | a)1. Describe the anatomy of tibia and fibula 2. Describe the mechanism of injury of fracture both bone leg 3. Describe the clinical features of fracture both bone leg 4. Discuss the investigations and management of fracture both bone leg b)1. Describe the anatomy of calcaneus 2. Describe the mechanism of injury of fracture calcaneus 3. Describe the clinical features of fracture calcaneus 4. Discuss the investigations and management of fracture calcaneus c)1. Describe the anatomy of small bone of foot 2. Describe the mechanism of injury of fracture small bone of foot 3. Describe the clinical features of fracture small bone of foot 4. Discuss the investigations and management of fracture small bone of foot | ✓ | ✓ | |
| | OR 2.14 Describe and discuss the aetiopathogenesis, clinical features, Investigation and principles of management of ankle fractures | | | |
| | 1. Describe the anatomy of ankle joint 2. Describe the mechanism of injury of ankle fractures, ankle injuries 3. Describe the clinical features of ankle fractures 4. Discuss the investigations and management of ankle fractures | ✓ | ✓ | |
| | OR 2.15 Plan and interpret the investigations to diagnose complications of fractures like malunion, non-union, infection, compartmental syndrome | | | |
| | 1. Define malunion, delayed union and non-union 2. Describe the etiopathogenesis of malunion, delayed union, non-union and infective non-union 3. Describe the clinical features of malunion, delayed union non-union and infective non-union 4. Discuss the investigations and principles of management of malunion, delayed union non-union and infective non-union b) 1. Define compartmental syndrome 2. Describe the etiopathogenesis of compartmental syndrome 3. Describe the clinical features of compartmental syndrome 4. Discuss the investigations compartmental syndrome 5. Discuss the principles of management of compartmental syndrome 6. Describe the complications of compartmental syndrome | | ✓ | |

| | | | | |
|--|---|---|---|--|
| | OR 2.16 Describe and discuss the mechanism of injury, clinical features, investigations and principles of management of open fractures with focus on secondary infection prevention and management | | | |
| | 1. Define fracture and classify fractures 2. Describe the Mechanism of injury of open fractures 3. Describe the clinical features of open fractures 4. Discuss the investigations of open fractures 5. Discuss the principles of management of open fractures 6. Describe the complications of open fractures | ✓ | | |
| | OR 3.1 describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of Bone and Joint infections a) Acute Osteomyelitis b) Subacute osteomyelitis c) Chronic osteomyelitis d) Septic arthritis & HIV infection e) Spirochaetal infection f) Skeletal Tuberculosis | | | |
| | a) 1. Define Osteomyelitis and Classify 2. Describe the etiopathogenesis of Acute Osteomyelitis 3. Describe the clinical features of Acute Osteomyelitis 4. Discuss the investigations of Acute Osteomyelitis 5. Discuss the principles of management of Acute Osteomyelitis 6. Describe the complications of Acute Osteomyelitis b) 1. Define Subacute osteomyelitis / Brodie's abscess 2. Describe the etiopathogenesis of Subacute osteomyelitis 3. Describe the clinical features of Subacute osteomyelitis 4. Discuss the investigations of Subacute osteomyelitis 5. Discuss the principles of management of Subacute osteomyelitis 6. Describe the complications of Subacute osteomyelitis c) 1. Define Chronic osteomyelitis 2. Describe the etiopathogenesis of Chronic osteomyelitis / Garre's Osteomyelitis 3. Describe the clinical features of Chronic osteomyelitis 4. Discuss the investigations of Chronic osteomyelitis 5. Discuss the principles of management of Chronic osteomyelitis 6. Describe the complications of Chronic osteomyelitis d) 1. Define Septic arthritis and Tom Smith arthritis 2. Describe the etiopathogenesis of Septic arthritis of hip & knee and Tom Smith arthritis 3. Describe the clinical features of Septic arthritis of hip & knee and Tom Smith arthritis 4. Discuss the investigations of Septic arthritis of hip & knee and Tom Smith arthritis 5. Discuss the principles of management of Septic arthritis of hip & knee and Tom Smith arthritis | ✓ | ✓ | |

| | | | | |
|--|---|---|---|--|
| | 6. Describe the complications of Septic arthritis of hip & knee and Tom Smith arthritis e) 1. Define Skeletal Tuberculosis- TB HIP 2. Describe the etiopathogenesis of Skeletal Tuberculosis - TB HIP 3. Describe the clinical features of Skeletal Tuberculosis - TB HIP 4. Discuss the investigations of Skeletal Tuberculosis - TB HIP 5. Discuss the principles of management of Skeletal Tuberculosis - TB HIP 6. Describe the complications of Skeletal Tuberculosis -TB HIP f) 1. Define Skeletal Tuberculosis- TB SPINE 2. Describe the etiopathogenesis of Skeletal Tuberculosis - TB SPINE 3. Describe the clinical features of Skeletal Tuberculosis - TB SPINE 4. Discuss the investigations of Skeletal Tuberculosis - TB SPINE 5. Discuss the principles of management of Skeletal Tuberculosis - TB SPINE 6. Describe the complications of Skeletal Tuberculosis -TB SPINE | | | |
| | OR 3.2 Participate as a member in team for aspiration of joints under supervision | | | |
| | 1. Describe the normal anatomy of knee joint 2. Describe normal characteristic of synovial fluid. 3. Mention the indication for Aspiration of knee joint 4. Explain steps involved in aspiration of knee joint | | ✓ | |
| | OR 3.3 Participate as a member in team for procedures like drainage of abscess, sequestrectomy/ saucerisation and arthrotomy | | | |
| | 1. Define abscess and its etiology 2. Explain steps of incision and drainage 3. Define chronic osteomyelitis, etiology and types 4. Define sequestrectomy and saucerisation 5. Discuss steps involved in sequestrectomy and saucerisation 6. Define arthrotomy and its indications 7. discuss technique involved in knee arthrotomy | | ✓ | |
| | OR 4.1 Describe and discuss the clinical features, Investigation and principles of management of Tuberculosis affecting major joints (Hip, Knee) including cold abscess and caries spine | | | |
| | a) Tuberculosis of hip joint 1. Describe the etiopathogenesis of Tuberculosis of hip joint 2. Describe the clinical features of Tuberculosis of hip joint 3. Describe the different stages of Tuberculosis of hip joint 4. Discuss the investigations of Tuberculosis of hip joint 5. Discuss the principles of management of Tuberculosis of hip joint 6. Describe the complication of Tuberculosis of hip joint b) Tuberculosis of knee joint | ✓ | ✓ | |

| | | | |
|---|--|--|--|
| 1. Describe the etiopathogenesis of Tuberculosis of knee joint 2. Describe the clinical features of Tuberculosis of knee joint 3. Discuss the investigations of Tuberculosis of hip joint 4. Discuss the principles of management of Tuberculosis of hip joint 5. Describe the complication of Tuberculosis of hip joint c) Tuberculosis of spine 1. Describe the etiopathogenesis of Tuberculosis of spine 2. Describe the clinical features of Tuberculosis of spine 3. Discuss the investigations of Tuberculosis of spine 4. Discuss the principles of management of Tuberculosis of spine 5. Describe the complication of Tuberculosis of spine d) Cold abscess Tutorials e) Carries spine Tutorial | | | |
|---|--|--|--|

Bedside Clinics in Orthopaedics for MBBS Third Professional year (Part I)

| Topics | Number | COMPETENCIES | Hours |
|------------------------------------|------------------|--|-------|
| SKELETAL TRAUMA, POLYTRAUMA | OR1.5 | Elicit, document and present a history in a patient presenting with dislocation of shoulder, hip and knee joint | |
| FRACTURES | OR2.4 OR2.15 | Elicit, document, present a history and clinical findings in a patient presenting with malunited Supracondylar fracture with emphasis of neurovascular deficit | |
| | OR2.6 OR2.15 | Elicit, document, present a history and clinical findings in a patient presenting with malunited distal end radius fracture | |
| | OR2.10 OR2.15 | Elicit, document, present a history and clinical findings in a patient presenting with malunited intertrochanteric femur fracture | |
| | OR2.10 OR2.15 | Elicit, document, present a history and clinical findings in a patient presenting with non-union of femur neck fracture | |
| | OR2.11 OR2.15 | Elicit, document and present a history in a patient presenting with proximal tibia fracture with emphasis of neurovascular injury and compartment syndrome. | |
| | OR2.14 | Elicit, document and present a history in a patient presenting with ankle fractures | |

| | | | |
|----------------------------------|------------------|---|--|
| | OR2.16 OR2.15 | Elicit, document and present a history in a patient presenting with open fractures and focus on secondary infection prevention. | |
| MUSCULOSKELETAL INFECTION | OR3.1 | Elicit, document, present a history and clinical findings in a patient presenting with acute osteomyelitis | |
| | OR3.1 | Elicit, document, present a history and clinical findings in a patient presenting with chronic osteomyelitis. | |
| SKELETAL TUBERCULOSIS | OR4.1 | Elicit, document, present a history and clinical findings in a patient presenting with skeletal tuberculosis | |

Clinical postings and skill lab

1st week

| | | Method of Assessment |
|--------------------------------|---|---------------------------------------|
| OPD | Observe and record new and follow up cases in OPD(2hrs) AETCOM (1hr) | OSCE |
| Post Admission day ward rounds | Follow up of assigned cases(1hr), Bedside clinics (General scheme of History taking) SGD,DOAP(1hr), SDL, Discussion and closure (1hr) | OSCE |
| OT | Observe OT procedures and document in the logbook with Discussion(3hrs) | OSCE |
| Ward | Follow up of assigned cases(1hr), Bedside clinics (General physical examination) SGD, DOAP(1hr), SDL, Discussion and closure (1hr) | OSCE |
| Ward | Follow up of assigned cases(1hr), Bedside clinics (General physical examination) SGD, DOAP(1hr), SDL, Discussion and closure (1hr) | OSCE |
| Skill lab | OR13.2 Describe the Principles of FIRST AID Small group discussion (1 hr) DOAP(1hr), SDL, Discussion and closure (1hr) | OSCE with Simulation based assessment |

2nd week

| | | Method of Assessment |
|--------------------------------|---|---------------------------------------|
| OPD | Observe and record new and follow up cases in OPD(2hrs) AETCOM (1hr) | OSCE |
| Post Admission day ward rounds | Follow up of assigned cases(1hr), Bedside clinics (History taking, physical examination of a case of discharging sinus) SGD,DOAP(1hr), Discussion and closure (1hr) | OSCE |
| OT | Observe OT procedures and document in the logbook with Discussion(3hrs) | OSCE |
| Ward | Follow up of assigned cases(1hr), Bedside clinics (History taking, physical examination of a case of Swelling) SGD,DOAP(1hr), SDL, Discussion and closure (1 hr) | OSCE |
| Ward | Follow up of assigned cases(1hr), Bedside clinics (History taking, physical examination of a case of deformity) SGD,DOAP(1hr), SDL, Discussion and closure (1 hr) | OSCE |
| Skill lab | OR13.2 Participate as a member in team for Resuscitation of Polytrauma victim Small group discussion (1 hr), DOAP(1 hr), SDL, Discussion and closure (1 hr) | OSCE with Simulation based assessment |

3rd week

| | | Method of Assessment |
|--------------------------------|--|----------------------|
| OPD | Observe and record new and follow up cases in OPD(2hrs) AETCOM (1hr) | OSCE |
| Post Admission day ward rounds | Follow up of assigned cases(1hr), Bedside clinics (History taking, physical examination of a case of deformed limb) DOAP(1hr), Discussion and closure (1hr) | OSCE |
| OT | Observe OT procedures and document in the logbook with Discussion(3hrs) | OSCE |
| Ward | Follow up of assigned cases(1hr), Bedside clinics (History taking, physical examination of a case of Malunited fracture) SGD,DOAP(1hr), SDL, Discussion and closure (1 hr) | OSCE |

| | | |
|-----------|--|---------------------------------------|
| Ward | Follow up of assigned cases(1hr), Bedside clinics (History taking, physical examination of a case of non-union) SGD,DOAP(1hr), SDL, Discussion and closure (1 hr) | OSCE |
| Skill lab | OR13.2 Demonstrate maintenance of an airway and Splintage of injured limb in a mannequin or equivalent Small group discussion (1 hr) DOAP(1 hr), SDL, Discussion and closure (1 hr) | OSCE with Simulation based assessment |

4th week

| | | |
|--------------------------------|---|---------------------------------------|
| | | Method of Assessment |
| OPD | Observe and record new and follow up cases in OPD(2hrs) AETCOM (1hr) | OSCE |
| Post Admission day ward rounds | Follow up of assigned cases(1hr), Bedside clinics (History taking, physical examination of a case of swelling) DOAP(1hr), Discussion and closure (1hr) | OSCE |
| OT | Observe OT procedures and document in the logbook with Discussion(3hrs) | OSCE |
| Ward | Follow up of assigned cases(1hr), Bedside clinics (History taking, physical examination of a case of joint effusion) SGD,DOAP(1hr), Discussion and closure (1hr) | OSCE |
| Ward | Follow up of assigned cases(1hr), Bedside clinics (History taking, physical examination of a case of joint pain) SGD,DOAP(1hr), SDL, Discussion and closure (1 hr) | OSCE |
| Skill lab | OR13.1 Participate in a team for above elbow plaster application in patients and Demonstrate ability to perform in a mannequin or equivalent. Small group discussion (1 hr) DOAP(1 hr), SDL, Discussion and closure (1 hr) | OSCE with Simulation based assessment |

Internal Assessment

examination: -- **Theory: 100**

marks

One internal assessments (IA) will be conducted at the end of module one and module two for 100 marks. Average marks of all theory internal assessment examinations (IAE) is taken into consideration for calculating the final internal assessment marks. Marks obtained by Periodic Assessment tests like Quiz, PCT, MCQs, will be added to theory internal marks.

Please note: Prior to submission to the University, the marks for each of the two internal examination theory assessments will be calculated out of 10 marks(1/4th of General Surgery marks), regardless of the maximum marks.

| Type of Questions | Number of questions | Marks for each question | Total |
|--|---------------------|-------------------------|------------|
| Multiple Choice Questions | 20 | 1 | 20 |
| Long Essay Questions | 2 | 10 | 20 |
| Short Essay Questions | 6 | 5 | 30 |
| Reasoning Questions / Short Answer Questions | 10 | 3 | 30 |
| Total marks | | | 100 |

Note:

- Case Based Questions: 20% of total marks.
- Two questions based on integration (AITo) in Internal Assessment Examination and one question from AETCOM.
- A student who has not taken minimum required number of tests for Internal Assessment, each in theory and practical will not be eligible for University examinations.
- The results of Internal Assessment should be displayed on notice board within 2 weeks of the test and an opportunity to be provided to the students to discuss the results and get feedback on making their performance better.
- Internal assessment marks will not be added to University examination marks and will reflect as a separate head of passing at the summative examination.

Practical/Viva: --100 Marks

Two practical assessments will be conducted along with the Theory Internal Assessments. Average marks of the practical IAE will be taken. The marks obtained for Logbook, Record Book and Professionalism will be added to practical IAE marks. Objective Structured Practical Examination will be a method of assessment in Internal Assessment and Summative examination.

Total teaching hours for MBBS Third Professional year (Part II)

| Subject | Lecture (hours) | Tutorials/Seminars/Integrated teaching (hours) | Self-Directed Learning (hours) | Clinical Posting (hours) | Skill lab (hours) | Total |
|--------------|-----------------|--|--------------------------------|--------------------------|-------------------|-------|
| Orthopaedics | 20 | 25 | 5 | 30 | 6 | 86 |

The clinical postings in third professional part II shall be 18hours per week (3hours per day from Monday to Saturday)

Atleast 3hours of clinical instruction each week must be allotted to training in clinical and procedural skill laboratories

Orthopaedics topics for MBBS Third Professional year (Part II)

| SL. NO. | TOPIC | Lectures (hours) | Tutorials/Seminars /Integrated teaching (hours) |
|---------|-------|------------------|---|
| | | | |

| | | | |
|-----|--|---|---|
| 1. | RHEUMATOID ARTHRITIS AND ASSOCIATED INFLAMMATORY DISORDERS | 3 | 4 |
| 2. | DEGENERATIVE DISORDERS | 1 | 1 |
| 3. | METABOLIC BONE DISORDERS | 2 | 3 |
| 4. | POLIOMYELITIS | 1 | 1 |
| 5. | CEREBRAL PALSY | 1 | 1 |
| 6. | BONE TUMOURS | 6 | 3 |
| 7. | PERIPHERAL NERVE INJURIES | 3 | 4 |
| 8. | CONGENITAL LESIONS | 3 | 4 |
| 9. | PROCEDURAL SKILLS | | 2 |
| 10. | COUNSELLING SKILLS | | 2 |

COURSE CONTENTS:

OR 1.1- Competency as represented in the MCI Competency Based Undergraduate Curriculum for the Indian Medical Graduate Volume – III 2018, where first two alphabets OR represents subject Orthopaedics and number following alphabet reflects topic number.

| Topics | Number | COMPETENCIES | Domain K/S/A/C | Level K/KH/SH/P | Core | Suggested Teaching Learning method | Suggested Assessment method | Vertical Integration (VI) | Horizontal integration (HI) |
|--|--------|--|-------------------|--------------------|------|--|-----------------------------|---------------------------|-----------------------------|
| RHEUMATOID ARTHRITIS AND ASSOCIATED INFLAMMATORY DISORDERS | OR 5.1 | Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of various inflammatory disorder of joints | K | KH | Y | Lecture/ Small group discussion/ Bed side clinic | Written and VivaVoice | ✓ PA,IM, PH | ----- |
| DEGENERATIVE DISORDERS | OR 6.1 | Describe and discuss the clinical features, investigations and principles of management of degenerative condition of spine (Cervical Spondylosis, Lumbar Spondylosis, PID) | K | KH | Y | Lecture/ Small group discussion/ Bed side clinic | Written and VivaVoice | ----- | ----- |

| | | | | | | | | | |
|---------------------------------|---------|--|---|----|---|--|-----------------------|-----------------|-------|
| METABOLIC BONE DISORDERS | OR 7.1 | Describe and discuss the aetiopathogenesis, clinical features, investigation and principles of management of metabolic bone disorders in particular osteoporosis, osteomalacia, rickets, Paget's disease | K | KH | Y | Lecture/ Small group discussion/ Bed side clinic | Written and VivaVoice | ✓ AN, PA, RD | ----- |
| POLIOMYELITIS | OR 8.1 | Describe and discuss the aetiopathogenesis, clinical features, assessment and principles of management a patient with Post-Polio Residual Paralysis | K | KH | Y | Lecture/ Small group discussion/ Bed side clinic | Written and VivaVoice | ----- | ----- |
| CEREBRAL PALSY | OR 9.1 | Describe and discuss the aetiopathogenesis, clinical features, assessment and principles of management of Cerebral palsy patient | K | KH | Y | Lecture/ Small group discussion | Written and VivaVoice | ----- | ----- |
| BONE TUMOURS | OR 10.1 | Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of | K | KH | Y | Lecture/ Small group discussion/ Bed side | Written and VivaVoice | ✓ AN, PA, RD | ----- |

| | | | | | | | | | |
|----------------------------------|---------|---|---|----|---|--|-----------------------|-------|-------|
| | | management of benign and malignant bone tumours and pathological fractures | | | | clinic | | | |
| PERIPHERAL NERVE INJURIES | OR 11.1 | Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of peripheral nerve injuries in diseases like foot drop, wrist drop, claw hand, palsies of Radial, Ulnar, Median, Lateral Popliteal and Sciatic Nerves | K | KH | Y | Lecture/ Small group discussion/ Bed side clinic | Written and VivaVoice | ----- | ----- |

| | | | | | | | | | |
|---------------------------|---------|--|---|-------|---|--|-----------------------|-------|-------|
| CONGENITAL LESIONS | OR 12.1 | Describe and discuss the clinical features, investigations and principles of management of Congenital and acquired malformations and deformities of: a. limbs and spine - Scoliosis and spinal bifida b. Congenital dislocation of Hip, Torticollis, c. congenital talipes equinovarus | K | KH | Y | Lecture/ Small group discussion/ Bed side clinic | Written and VivaVoice | ----- | ----- |
| | OR 13.1 | Participate in a team for procedures in patients and demonstrating the ability to perform on mannequins / simulated patients in the following: i. Above elbow plaster ii. Below knee plaster iii. Above knee plaster iv. Thomas splint v. splinting for long bone fractures vi. Strapping for shoulder and clavicle trauma | K | KH/SH | Y | Video assisted Lecture/ Small group discussion/ Skill lab sessions | Written and VivaVoice | ----- | ----- |
| PROCEDURAL SKILLS | OR 13.2 | Participate as a member in team for Resuscitation of Polytrauma victim by doing all of the following : (a) I.V. access central - peripheral (b) Bladder | K | KH/SH | Y | Video assisted Lecture/ Small group discussion/ Skill lab sessions | Written and VivaVoice | ----- | ----- |
| | | catheterization c) Endotracheal intubation (d) Splintage | | | | | | | |

| | | | | | | | | | |
|--------------------------|---------|--|---|-------|---|---|-----------------------|-------|-------|
| COUNSELING SKILLS | OR 14.1 | Demonstrate the ability to counsel patients regarding prognosis in patients with various orthopaedic illnesses like a. fractures with disabilities b. fractures that require prolonged bed stay c. bone tumours d. congenital disabilities | K | KH/SH | Y | Videoassisted Lecture/ Small group discussion/ Skill lab sessions | Written and VivaVoice | ----- | ----- |
| | OR 14.2 | Demonstrate the ability to counsel patients to obtain consent for various orthopaedic procedures like limb amputation, permanent fixations etc. | K | KH/SH | Y | Videoassisted Lecture/ Small group discussion/ Skill lab sessions | Written and VivaVoice | ----- | ----- |
| | OR 14.3 | Demonstrate the ability to convince the patient for referral to a higher centre in various orthopaedic illnesses, based on the detection of warning signals and need for sophisticated management | K | KH/SH | Y | Videoassisted Lecture/ Small group discussion/ Skill lab sessions | Written and VivaVoice | ----- | ----- |

* PA - Pathology, PH – Pharmacology, RD - Radio diagnosis, IM - General Medicine

Theory: Competencies with Specific Learning Objectives (SLOs) and teaching learning methods (TLM)

| Section | Competencies with SLOs | Lecture15 | Seminar20 | SDL5 |
|---|--|-----------|-----------|------|
| | At the end of the course, Third professional part IIMBBS student should be able to | | | |
| RHEUMATOID ARTHRITIS AND ASSOCIATED INFLAMMATORY DISORDERS | OR5.1 Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of various inflammatory disorder of joints | | | |
| | a) Rheumatoid Arthritis 1. Define Rheumatoid Arthritis 2. Describe the etiopathogenesis of Rheumatoid Arthritis | ✓ | ✓ | - |

| | | | | |
|---------------------------------|--|---|---|--|
| | <p>3. Describe the clinical features of Rheumatoid Arthritis</p> <p>4. Discuss EULAR criteria to diagnose Rheumatoid Arthritis</p> <p>5. Discuss the investigations of Rheumatoid Arthritis</p> <p>6. Discuss the principles of management of Rheumatoid Arthritis</p> <p>7. Discuss the deformities of hand and foot in Rheumatoid Arthritis</p> <p>b) Seronegative arthritis.</p> <p>1. Define Seronegative arthritis.</p> <p>2. Describe the etiopathogenesis of Seronegative arthritis.</p> <p>3. Describe the clinical features of Seronegative arthritis.</p> <p>4. Discuss the investigations of Seronegative arthritis.</p> <p>5. Discuss the principles of management of Seronegative arthritis.</p> <p>c) Gout</p> <p>1. Define Gout.</p> <p>2. Describe the etiopathogenesis of Gout</p> <p>3. Describe the clinical features of Gout</p> <p>4. Discuss the investigations of Gout.</p> <p>5. Discuss the principles of management of Gout</p> <p>d) Pseudogout</p> <p>1. Define Pseudo-Gout.</p> <p>2. Describe the etiopathogenesis of Pseudo-Gout</p> <p>3. Describe the clinical features of Pseudo-Gout</p> <p>4. Discuss the investigations of Pseudo-Gout.</p> <p>5. Discuss the principles of management of Gout</p> | | | |
| DEGENERATIVE DISORDERS | OR6.1 Describe and discuss the clinical features, investigations and principles of management of degenerative condition of spine (Cervical Spondylosis, Lumbar Spondylosis, PID) | | | |
| | <p>a) Cervical spondylosis</p> <p>1. Define Cervical spondylosis</p> <p>2. Describe the etiopathogenesis of Cervical spondylosis .</p> <p>3. Describe the clinical features of Cervical spondylosis .</p> <p>4. Discuss the investigations of Cervical spondylosis .</p> <p>5. Discuss the principles of management of Cervical spondylosis</p> <p>b) Lumbar spondylosis</p> <p>1. Define Lumbar spondylosis</p> <p>2. Describe the etiopathogenesis of Lumbar spondylosis .</p> <p>3. Describe the clinical features of Lumbar spondylosis .</p> <p>4. Discuss the investigations of Lumbar spondylosis .</p> <p>5. Discuss the principles of management of Lumbar spondylosis</p> <p>c) Posterior Intervertebral Disc Prolapse</p> <p>1. Define Posterior Intervertebral Disc Prolapse</p> <p>2. Describe the etiopathogenesis of Posterior Intervertebral Disc Prolapse.</p> <p>3. Describe the clinical features of Posterior Intervertebral Disc Prolapse.</p> <p>4. Discuss the investigations of Posterior Intervertebral Disc Prolapse</p> <p>5. Discuss the principles of management Posterior Intervertebral Disc Prolapse</p> | ✓ | ✓ | |
| METABOLIC BONE DISORDERS | OR7.1 Describe and discuss the aetiopathogenesis, clinical features, investigation and principles of management of metabolic bone disorders in particular osteoporosis, Osteomalacia, rickets, Paget's disease | | | |

| | | | | |
|-----------------------|---|---|---|--|
| | a) Osteoporosis 1. Define Osteoporosis 2. Describe the etiopathogenesis of Osteoporosis . 3. Describe the clinical features of Osteoporosis . 4. Discuss the investigations of Osteoporosis . 5. Discuss the principles of management of Osteoporosis b) Osteomalacia | ✓ | ✓ | |
| | 1. Define Osteomalacia 2. Describe the etiopathogenesis of Osteomalacia . 3. Describe the clinical features of Osteomalacia . 4. Discuss the investigations of Osteomalacia. 5. Discuss the principles of management of Osteomalacia c) Rickets 1. Define Rickets 2. Describe the etiopathogenesis of Rickets. 3. Describe the clinical features of Rickets . 4. Discuss the investigations of Rickets . 5. Discuss the principles of management of Rickets d) Paget's Disease 1. Define Pagets Disease 2. Describe the etiopathogenesis of Pagets Disease. 3. Describe the clinical features of Pagets Disease . 4. Discuss the investigations of Pagets Disease . 5. Discuss the principles of management of Pagets Disease | | | |
| POLIOMYELITIS | OR8.1 Describe and discuss the aetiopathogenesis, clinical features, assessment and principles of management a patient with Post-Polio Residual Paralysis | | | |
| | 1. Describe etiopathogenesis of polio 2. Describe natural history of polio 3. Describe evaluation of case of PPRP 4. Describe orthopaedic management of case of PPRP | ✓ | ✓ | |
| CEREBRAL PALSY | OR9.1 Describe and discuss the aetiopathogenesis, clinical features, assessment and principles of management of Cerebral palsy patient | | | |
| | 1. Define cerebral palsy 2. Classify types 3. Evaluation of case of cerebral palsy 4. Describe management of cerebral palsy | ✓ | ✓ | |
| BONE TUMOURS | OR10.1 A Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of benign bone tumors and pathological fractures | | | |
| | 1. describe classification of bone tumours, 2. describe etiopathogenesis, clinical features and management of a. Osteochondroma, b. Osteoid osteoma c. Osteoblastoma, d. Enchondroma, e. Chondroblastoma, f. Fibrous dysplasia g. GCT | ✓ | ✓ | |
| BONE TUMOURS | OR10.1B Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of malignant bone tumours (A. Osteosarcoma, B. Ewings sarcoma, C. Chondrosarcoma, D. Multiple myeloma) | | | |

| | | | | |
|----------------------------------|---|---|---|--|
| | a) 1. Define malignant bone tumours 2. Describe types of osteosarcoma and its clinical features 3. Describe etiopathogenesis 4. Explain the investigation and management b) 1. Define Ewing's sarcoma 2. Describe clinical feature of Ewing's sarcoma 3. Describe etiopathogenesis of Ewing's sarcoma 4. Enumerate investigation for Ewing's sarcoma 5. Explain how to manage Ewing's sarcoma c) 1. Define chondrosarcoma and its clinical features | ✓ | ✓ | |
| | 2. Describe etiopathogenesis of chondrosarcoma 3. Enumerate investigation for chondrosarcoma 4. Explain how to manage these chondrosarcoma d) 1. Define Multiple Myeloma and mention its clinical feature 2. Describe etiopathogenesis of Ewing's sarcoma 3. Enumerate investigation for Ewing's sarcoma 4. Describe the management of Ewing's sarcoma | | | |
| PERIPHERAL NERVE INJURIES | OR11.1 Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of peripheral nerve injuries in diseases like foot drop, wrist drop, claw hand, palsies of Radial, Ulnar, Median, Lateral Popliteal and Sciatic Nerves | | | |
| | a) Radial Nerve injury 1. Describe the anatomy and course of Radial Nerve 2. Describe etiopathogenesis of radial nerve injury 3. Describe clinical feature of radial nerve injury 4. Enumerate investigation for radial nerve injury 5. Describe the management of radial nerve injury b) Ulnar Nerve injury 1. Describe the anatomy and course of Ulnar Nerve 2. Describe etiopathogenesis of Ulnar nerve injury 3. Describe clinical feature of Ulnar nerve injury 4. Enumerate investigation for Ulnar nerve injury 5. Describe the management of Ulnar nerve injury c) Median Nerve injury 1. Describe the anatomy and course of Median Nerve 2. Describe etiopathogenesis of Median nerve injury 3. Describe clinical feature of Median nerve injury 4. Enumerate investigation for Median nerve injury 5. Describe the management of Median nerve injury d) Lateral Popliteal nerve injury 1. Describe the anatomy and course of Lateral Popliteal Nerve 2. Describe etiopathogenesis of Lateral Popliteal nerve injury 3. Describe clinical feature of Lateral Popliteal nerve injury 4. Enumerate investigation for Lateral Popliteal nerve injury 5. Describe the management of Lateral Popliteal nerve injury e) Sciatic Nerve injury 1. Describe the anatomy and course of Sciatic Nerve 2. Describe etiopathogenesis of Sciatic nerve injury 3. Describe clinical feature of Sciatic nerve injury 4. Enumerate investigation for Sciatic nerve injury 5. Describe the management of Sciatic nerve injury | ✓ | ✓ | |

| | | | | |
|---------------------------|--|---|---|--|
| CONGENITAL LESIONS | OR12.1 Describe and discuss the clinical features, investigations and principles of management of Congenital and acquired malformations and deformities of: a. limbs and spine - Scoliosis and spinal bifida b. Congenital dislocation of Hip, Torticollis, c. congenital talipes equinovarus | | | |
| | A). limbs and spine - Scoliosis and spinal bifida i) Scoliosis 1. Describe etiopathogenesis of. Scoliosis 2. Describe clinical feature of Scoliosis 3. Enumerate investigation for Scoliosis 4. Describe the management of Scoliosis ii) Spinal bifida 1. Describe etiopathogenesis of Spinal bifida 2. Describe clinical feature of Spinal bifida | ✓ | ✓ | |
| | 3. Enumerate investigation for Spinal bifida 4. Describe the management of Spinal bifida b. Congenital dislocation of Hip, Torticollis, i) Congenital dislocation of Hip 1. Describe etiopathogenesis of Congenital dislocation of Hip 2. Describe clinical feature of Congenital dislocation of Hip 3. Enumerate investigation for Congenital dislocation of Hip 4. Describe the management of Congenital dislocation of Hip ii) Torticollis 1. Describe etiopathogenesis of Torticollis 2. Describe clinical feature of Torticollis 3. Enumerate investigation for Torticollis 4. Describe the management of Torticollis c. congenital talipes equinovarus 1. Describe etiopathogenesis of congenital talipes equinovarus 2. Describe clinical feature of congenital talipes equinovarus 3. Enumerate investigation for congenital talipes equinovarus 4. Describe the management of congenital talipes equinovarus | | | |
| PROCEDURAL SKILLS | OR13.1 Participate in a team for procedures in patients and demonstrating the ability to perform on mannequins / simulated patients in the following: i. Above elbow plaster ii. Below knee plaster iii. Above knee plaster iv. Thomas splint v. splinting for long bone fractures vi. Strapping for shoulder and clavicle trauma | | ✓ | |
| | OR13.2 Participate as a member in team for Resuscitation of Polytrauma victim by doing all of the following : (a) I.V. access central -peripheral (b) Bladder catheterization (c) Endotracheal intubation (d) Splintage | | ✓ | |

| | | | | |
|---------------------------|--|--|---|--|
| COUNSELLING SKILLS | OR14.1 Demonstrate the ability to counsel patients regarding prognosis in patients with various orthopaedic illnesses like a. fractures with disabilities b. fractures that require prolonged bed stay c. Bone tumours d. Congenital disabilities | | ✓ | |
| | OR14.2 Demonstrate the ability to counsel patients to obtain consent for various orthopaedic procedures like limb amputation, permanent fixations etc. | | ✓ | |
| | OR14.3 Demonstrate the ability to convince the patient for referral to a higher centre in various orthopaedic illnesses, based on the detection of warning signals and need for sophisticated management | | ✓ | |

Certifiable procedural skills

The undergraduate learns

1. Application of basic splints and slings (I)
2. Basic fracture and dislocation management (O)
3. Compression bandage (I)

I- Independently performed on patients,

O- Observed in patients or on simulations,

List and number of sessions for skill certification:

| Competency | Number required to certify | Hours (Each session=1 hr) |
|---|-----------------------------------|----------------------------------|
| Application of basic splints and slings | 3 | 1 |
| Basic fracture and dislocation management (O) | 3 | 1 |
| Compression bandage (I) | 3 | 1 |

Note: Learners must have completed the required certifiable competencies for that phase of training to be eligible for appearing at the final university examination of that subject.

AETCOM

Attitude, Ethics and Communication (AETCOM) Competencies” for the Indian Medical Graduate 2018

Learning modules for Professional

Year IV Number of modules:1;

Number of

hours:4

One modules of the AETCOM as prescribed in the MCI AETCOM booklet will be conducted by department of Orthopaedics is given below

Competencies addressed:

| | |
|--|-------|
| The student should be able to: | Level |
| 1. Identify, discuss and defend medico-legal, socio-cultural, professional and ethical issues pertaining to medical negligence | KH |
| 2. Identify, discuss and defend medico-legal, socio-cultural, professional and ethical issues pertaining to malpractice | KH |

Bedside Clinics in Orthopaedics for MBBS Third Professional year (Part II)

| Topics | Number | COMPETENCIES | Hours |
|---|--------|---|-------|
| RHEUMATOID ARTHRITIS AND ASSOCIATED INFLAMMATORY DISORDERS | OR5.1 | Elicit, document, present a history and clinical findings in a patient presenting with multiple joint pain and swelling | |
| DEGENERATIVE DISORDERS | OR6.1 | Elicit, document, present a history and clinical findings in a patient presenting with degenerative spine disorders | |
| METABOLIC BONE DISORDERS | OR7.1 | Elicit, document, present a history and clinical findings in a patient presenting with metabolic bone disorders | |
| POLIOMYELITIS | OR8.1 | Elicit, document, present a history and clinical findings in a patient presenting with post-polio residual paralysis | |
| BONE TUMOURS | OR10.1 | Elicit, document, and present a history and clinical findings in a patient presenting with swelling arising from bone. | |
| PERIPHERAL NERVE INJURIES | OR11.1 | Elicit, document, present a history and clinical findings in a patient presenting with peripheral nerve injuries | |
| CONGENITAL LESIONS | OR12.1 | Elicit, document, present a history and clinical findings in a child presenting with deformity of foot | |

Clinical postings and skill lab

1st week

| | | Method of Assessment |
|--------------------------------|---|----------------------|
| OPD | Observe and record new and follow up cases in OPD(2hrs) AETCOM (1hr) | OSCE |
| Post Admission day ward rounds | Follow up of assigned cases(1hr), Bedside clinics (History taking and physical examination of patient with multiple joint pain and swelling) SGD,DOAP(1hr), SDL, Discussion and closure (1hr) | OSCE |
| OT | Observe OT procedures and document in the logbook with Discussion(3hrs) | OSCE |

| | | |
|-----------|--|---------------------------------------|
| Ward | Follow up of assigned cases(1hr), Bedside clinics (History taking and physical examination of patient with degenerative joint or spine) SGD, DOAP(1hr), SDL, Discussion and closure (1hr) | OSCE |
| Ward | Follow up of assigned cases(1hr), Bedside clinics (History taking and physical examination of patient presenting with clinical manifestation of rickets) SGD, DOAP(1hr), SDL, Discussion and closure (1hr) | OSCE |
| Skill lab | OR13.1 Participate in a team for below knee and above knee plaster application in patients and Demonstrate ability to perform in a mannequin or equivalent. Small group discussion (1 hr) DOAP(1hr), SDL, Discussion and closure (1hr) | OSCE with Simulation based assessment |

2nd week

| | | Method of Assessment |
|--------------------------------|---|----------------------|
| OPD | Observe and record new and follow up cases in OPD(2hrs) AETCOM (1hr) | OSCE |
| Post Admission day ward rounds | Follow up of assigned cases(1hr), Bedside clinics (History taking, physical examination of patient presenting with swelling arising from bone.) SGD,DOAP(1hr), Discussion and closure (1hr) | OSCE |
| OT | Observe OT procedures and document in the logbook with Discussion(3hrs) | OSCE |
| Ward | Follow up of assigned cases(1hr), Bedside clinics (History taking, physical examination of patient presenting with peripheral nerve injuries) SGD,DOAP(1hr), SDL, Discussion and closure (1 hr) | OSCE |
| Ward | Follow up of assigned cases(1hr), Bedside clinics (History taking, physical examination of child presenting with deformity of foot) SGD,DOAP(1hr), SDL, Discussion and closure (1 hr) | OSCE |

| | | |
|-----------|--|---------------------------------------|
| Skill lab | <p>OR13.1 Participate in a team for Thomas splint application and strapping of shoulder and clavicle fracture in patients and Demonstrate ability to perform in a mannequin or equivalent.</p> <p>Small group discussion (1 hr), DOAP(1 hr), SDL, Discussion and closure (1 hr)</p> | OSCE with Simulation based assessment |
|-----------|--|---------------------------------------|

Internal Assessment examination: -- (Theory 100 marks and Clinical 100

Marks)Theory: 100 marks

One internal assessments (IA) will be conducted at the end of module one and module two for 100 marks. Average marks of all notified theory internal assessment examinations (IAE) is taken into consideration for calculating the final internal assessment marks. Marks obtained by Periodic Assessment tests like Quiz, PCT, MCQs, will be added to theory internal marks.

Please note: Prior to submission to the University, the marks for each of the two internal examination theory assessments must be calculated out of 10 marks (1/4th of General Surgery marks), regardless of the maximum marks.

| Type of Questions | Number of questions | Marks for each question | Total |
|--|---------------------|-------------------------|------------|
| Multiple Choice Questions | 20 | 1 | 20 |
| Long Essay Questions | 2 | 10 | 20 |
| Short Essay Questions | 6 | 5 | 30 |
| Reasoning Questions / Short Answer Questions | 10 | 3 | 30 |
| Total marks | | | 100 |

Note:

- Case Based Questions: 20% of total marks.
- Two questions based on integration (AITo) in Internal Assessment Examination and one question from AETCOM.
- A student who has not taken minimum required number of tests for Internal Assessment, each in theory and practical will not be eligible for University examinations.
- The results of Internal Assessment should be displayed on notice board within 2 weeks of the test and an opportunity to be provided to the students to discuss the results and get feedback on making their performance better.
- Internal assessment marks will not be added to University examination marks and will reflect as a separate head of passing at the summative examination.

Practical/Viva: 100 Marks

Two practical assessments will be conducted along with the Theory Internal Assessments. Average marks of the two practical IAE will be taken. The marks obtained for Logbook, Record Book and Professionalism will be added to practical IAE marks. Objective Structured Practical Examination will be a method of assessment in Internal Assessment and Summative examination

Department of General Medicine

The broad goal of undergraduate training in General Medicine is to impart basic knowledge, skill and behavioral attitudes to the students to function effectively as the first contact primary care physician.

Respiratory medicine (TB & RD)

- To impart comprehensive knowledge, skills, attitude and communication to the undergraduate medical students in Respiratory medicine.
- To identify respiratory health issues and to manage or refer at appropriate time.
- To create respiratory health awareness and to reduce the stigma associated with chronic respiratory illness
- To nurture students and mould them as an ideal Indian Medical Graduate who should be a good clinician, communicator, lifelong learner, professional, leader and member of health care team,

Psychiatry

- To impart comprehensive knowledge, skills, attitude and communication to the undergraduate medical students in psychiatry.
- To identify mental health issues and to manage or refer at appropriate time.
- To create mental health awareness and to reduce the stigma associated with mental illness
- To nurture students and mould them as an ideal Indian Medical Graduate who should be a good clinician, communicator, lifelong learner, professional, leader and member of health care team,

Dermatology, Venereology and Leprosy

The broad goal of the teaching of Undergraduate students in Dermatology, Venereology and Leprosy is to produce graduates capable of independently diagnosing and clinically evaluating basic skin lesions and further investigating them

The student should be able to develop the clinical skills, professional attitudes and knowledge base for the practice of Dermatology, Venereology & Leprosy, as a part of General Medicine through exposure to general and autoimmune skin disorders.

The student must appreciate the medical management and basic foundations underlying the care of patients with dermatological complaints

COMPETENCIES

GENERAL MEDICINE

- The student must demonstrate ability to do the following in relation to common medical problems of the adult in the community: Demonstrate understanding of the patho-physiologic basis, epidemiological profile, signs and symptoms of disease and their investigation and management,
- Competently interview and examine an adult patient and make a clinical diagnosis,
- Appropriately order and interpret laboratory tests,

- Initiate appropriate cost-effective treatment based on an understanding of the rational drug Prescriptions, medical interventions required and preventive measures,
- Follow up of patients with medical problems and refer whenever required,
- Communicate effectively, educate and counsel the patient and family,
- Manage common medical emergencies and refer when required,
- Independently perform common medical procedures safely and understand patient safety issues.

Respiratory Medicine (TB & RD)

The student must demonstrate:

- Knowledge of common chest diseases, their clinical manifestations, diagnosis and management,
- Ability to recognize, diagnose and manage pulmonary tuberculosis as contemplated in National Tuberculosis Control programme,
- Ability to manage common respiratory emergencies in primary care setting and refer appropriately.

Psychiatry

The undergraduate must demonstrate: (from NMC regulations amended up to 2023)

- History taking in patients with common mental disorders
- Mental status examination in patients with common mental disorders
- Approach to diagnosis in patients with common mental disorders
- Treatment or referral plan in patients with common mental disorders
- Integration: The teaching should be aligned and integrated horizontally and vertically in understanding the mental disorders with physiology, pharmacology, forensic medicine, community medicine, general medicine, obstetrics and pediatrics.

Dermatology, Venereology & Leprosy

The undergraduate student must demonstrate:

- Understanding of the principles of diagnosis of diseases of the skin, hair, nail and mucosa,
- Ability to recognize, diagnose, order appropriate investigations and treat common diseases of the skin including leprosy in the primary care setting and refer as appropriate,
- A syndrome approach to the recognition, diagnosis, prevention, counseling, testing and
- Management of common sexually transmitted diseases including HIV based on national health priorities,
- Ability to recognize and treat emergencies including drug reactions and refer as appropriate.

OBJECTIVES

General

Medicine

Competencies

The student must demonstrate ability to do the following in relation to common medical problems of the adult in the community:

- Demonstrate understanding of the pathophysiologic basis, epidemiological profile, signs and symptoms of disease and their investigation and management.
- Competently interview and examine an adult patient and make a clinical diagnosis.
- Appropriately order and interpret laboratory tests.
- Initiate appropriate cost-effective treatment based on an understanding of the rational drug prescriptions, medical interventions required and preventive measures.
- Follow up of patients with medical problems and refer whenever required.
- Communicate effectively, educate and counsel the patient and family.
- Manage common medical emergencies and refer when required.
- Independently perform common medical procedures safely and understand patient safety issues.

Broad subject specific objectives:

a) Knowledge:

At the end of the course, the student shall be able to:

- Diagnose common clinical disorders with special reference to infectious diseases, nutritional disorders, tropical and environmental diseases.
- Outline various modes of management including drug therapeutics especially dosage, side effects, toxicity, interactions, indications and contra-indications.
- Propose diagnostic and investigative procedures and ability to interpret them.
- Provide first level management of acute emergencies promptly and efficiently and decide the timing and level of referral, if required.
- Recognize geriatric disorders and their management.

b) Skills

At the end of the course, the student shall be able to

- Develop clinical skills (history taking, clinical examination and other instruments of examination) to diagnose various common medical disorders and emergencies.
- Refer a patient to secondary and/or tertiary level of health care after having instituted primary care.
- Perform simple routine investigations like hemogram, stool, urine, sputum and biological fluid examinations.
- Assist the common bedside investigative procedure like pleural tap, Lumbar puncture, bone marrow aspiration/biopsy and liver biopsy.

c) Integration:

The teaching should be aligned and integrated horizontally and vertically in order to provide sound biologic basis and incorporating the principles of general medicine into a holistic and comprehensive approach to the care of the patient. With other relevant academic inputs which provide scientific basis of clinical medicine e.g. anatomy, physiology, biochemistry, microbiology, pathology and pharmacology.

At the end of the undergraduate medical student will be able to:

Knowledge

- To understand the basics of clinical assessment, diagnosis and treatment of Tuberculosis including MDR, XDR TB patients.
- To know about the prevalence of common respiratory diseases
- To know the theoretical basis of diagnosis and management of obstructive airway diseases
- To know the theoretical basis of respiratory manifestations of General medical conditions
- To know the theoretical basis of Pharmacology of drugs used in respiratory medicine

Skills

- To elicit detailed history from patients and informants
- To perform Respiratory examination in patients with Respiratory disorders

Attitude and communication

- To establish rapport with patients and their family members
- To establish therapeutic alliance with patients
- To exhibit competencies in verbal, nonverbal and written communication
- Attitude to be a lifelong learner.

Integration

- At the end of the integrated teaching the student shall acquire an integrated knowledge of Respiratory disorders and its management
- To search the medical literature, including electronic databases, for enhancing the knowledge and skills in Respiratory medicine

Psychiatry

Knowledge:

At the end of the undergraduate medical student will be able to:

- To know about the classification of psychiatric disorders
- To understand the symptoms of common mental disorders in psychiatry
- To know the theoretical basis of differentiating psychiatric disorders from organicity
- To know the theoretical basis of psychiatric manifestations of General medical conditions
- To know the theoretical basis of substance use disorders
- To know about psychological, pharmacological and somatic interventions.

Skills

- To elicit detailed psychiatric history of common mental disorders from patients and informants
- To perform mental status examination in patients with common mental disorders

Attitude and communication

- To establish rapport with patients and their family members
- To exhibit competencies in verbal, non-verbal and written communication
- Attitude to be a lifelong learner.

Integration

- At the end of the integrated teaching the student shall acquire an integrated knowledge of mental disorders and its management
- To search the medical literature, including electronic databases, for enhancing the knowledge and skills in Psychiatry

Dermatology, Venereology & Leprosy Skills

At the end of the course, the student should be able to:

- Explain the basic skin lesions clinically and Bed side investigations for the same.
- Clinical Evaluations and bedside Demonstration for Laboratory diagnosis-
 - KOH MOUNT for Fungus
 - Gram stain
 - Scraping and mounting for infestations
- Clinical evaluations of lesions and nerve examinations for Hansens Disease with SSS (slit skin smear) and skin biopsy.
- Describe the various cutaneous findings and clinical aspects of conditions like systemic lupus erythematosus, Scleroderma, Dermatomyositis etc.

Attitude and Communication

- Communication with empathy to patients & patient's attenders.
- To counsel & obtain informed consent from patient & patients attenders.

Integration

The teaching should be aligned and integrated horizontally and vertically in order to emphasize the basis of diseases of the skin, sexually transmitted diseases and leprosy and to provide an understanding that skin diseases may be a manifestation of systemic disease.

Theory Syllabus: Topic and the competencies General Medicine

| Number | Unit 1 - Heart Failure |
|--------|---|
| IM1.1 | Describe and discuss the epidemiology, pathogenesis clinical evolution and course of common causes of heart disease including: rheumatic/ valvular, ischemic, hypertrophic inflammatory |
| IM1.2 | Describe and discuss the genetic basis of some forms of heart failure |
| IM1.3 | Describe and discuss the aetiology microbiology pathogenies and clinical evolution of rheumatic fever, criteria, degree of rheumatic activity and rheumatic valvular heart disease and its complications including infective endocarditis |
| IM1.9 | Describe and discuss the clinical presentation and features, diagnosis, recognition and management of acute rheumatic fever |

| | |
|--------|--|
| IM1.27 | Describe and discuss the role of penicillin prophylaxis in the prevention of rheumatic heart disease |
|--------|--|

| Number | Unit 2 - Acute Myocardial Infarction/ IHD |
|--------|--|
| IM2.1 | Discuss and describe the epidemiology, antecedents and risk factors for atherosclerosis and ischemic heart disease |
| IM2.2 | Discuss the aetiology of risk factors both modifiable and non-modifiable of atherosclerosis and IHD |
| IM2.3 | Discuss and describe the lipid cycle and the role of dyslipidemia in the pathogenesis of atherosclerosis |
| IM2.4 | Discuss and describe the pathogenesis natural history, evolution and complications of atherosclerosis and IHD |
| IM2.5 | Define the various acute coronary syndromes and describe their evolution, natural history and outcomes |
| IM2.13 | Discuss and enumerate the indications for and findings on echocardiogram, stress testing and coronary angiogram |
| IM2.14 | Discuss and describe the indications for admission to a coronary care unit and supportive therapy for a patient with acute coronary syndrome |
| IM2.15 | Discuss and describe the medications used in patients with an acute coronary syndrome based on the clinical presentation |
| IM2.16 | Discuss and describe the indications for acute thrombolysis, PTCA and CABG |
| IM2.17 | Discuss and describe the indications and methods of cardiac rehabilitation |
| IM2.18 | Discuss and describe the indications, formulations, doses, side effects and monitoring for drugs used in the management of dyslipidemia |
| IM2.19 | Discuss and describe the pathogenesis, recognition and management of complications of acute coronary syndromes including arrhythmias, shock, LV dysfunction, papillary muscle rupture and pericarditis |
| IM2.20 | Discuss and describe the assessment and relief of pain in acute coronary syndromes |
| IM2.23 | Describe and discuss the indications for nitrates, anti-platelet agents, gpIIb IIIa inhibitors, beta blockers, ACE inhibitors etc in the management of coronary syndromes |

| Number | Unit 3 – Pneumonia |
|--------|--|
| IM3.1 | Define, discuss, describe and distinguish community acquired pneumonia, nosocomial pneumonia and aspiration pneumonia |
| IM3.2 | Discuss and describe the aetiologies of various kinds of pneumonia and their microbiology depending on the setting and immune status of the host |
| IM3.3 | Discuss and describe the pathogenesis, presentation, natural history and complications of pneumonia |
| IM3.15 | Describe and enumerate the indications for hospitalisation in patients with pneumonia |
| IM3.16 | Describe and enumerate the indications for isolation and barrier nursing in patients with pneumonia |
| IM3.17 | Describe and discuss the supportive therapy in patients with pneumonia including oxygen use and indications for ventilation |

| Number | Unit 4 - Fever and febrile syndromes |
|--------|--|
| IM4.1 | Describe and discuss the febrile response and the influence of host immune status, risk factors and comorbidities on the febrile response |
| IM4.2 | Describe and discuss the influence of special populations on the febrile response including: the elderly, immune suppression, malignancy and neutropenia, HIV and travel |
| IM4.3 | Discuss and describe the common causes, pathophysiology and manifestations of fever in various regions in India including bacterial, parasitic and viral causes (e.g.Dengue, Chikungunya, Typhus) |
| IM4.4 | Describe and discuss the pathophysiology and manifestations of inflammatory causes of fever |
| IM4.5 | Describe and discuss the pathophysiology and manifestations of malignant causes of fever including hematologic and lymph node malignancies |
| IM4.6 | Discuss and describe the pathophysiology and manifestations of malaria |
| IM4.8 | Discuss and describe the pathophysiology, aetiology and clinical manifestations of fever of unknown origin (FUO) including in a normal host, neutropenic host, nosocomial host and a host with HIV disease |
| IM4.11 | Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes |

| | |
|--------|---|
| IM4.12 | Order and interpret diagnostic tests based on the differential diagnosis including: CBC with differential, peripheral smear, urinary analysis with sediment, Chest X ray, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture and QBC |
| IM4.22 | Describe and discuss the pharmacology, indications, adverse reactions, interactions of antimalarial drugs and basis of resistance |

| Number | Unit 5 - Liver disease |
|--------|---|
| IM5.1 | Describe and discuss the physiologic and biochemical basis of hyperbilirubinemia |
| IM5.2 | Describe and discuss the aetiology and pathophysiology of liver injury |
| IM5.3 | Describe and discuss the pathologic changes in various forms of liver disease |
| IM5.4 | Describe and discuss the epidemiology, microbiology, immunology and clinical evolution of infective (viral) hepatitis |
| IM5.5 | Describe and discuss the pathophysiology and clinical evolution of alcoholic liver disease |
| IM5.6 | Describe and discuss the pathophysiology, clinical evolution and complications of cirrhosis and portal hypertension including ascites, spontaneous bacterial peritonitis, hepatorenal syndrome and hepatic encephalopathy |
| IM5.7 | Enumerate and describe the causes and pathophysiology of drug induced liver injury |
| IM5.8 | Describe and discuss the pathophysiology, clinical evolution and complications cholelithiasis and cholecystitis |
| IM5.11 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom |
| IM5.13 | Enumerate the indications for ultrasound and other imaging studies including MRCP and ERCP and describe the findings in liver disease |
| IM5.16 | Describe and discuss the management of hepatitis, cirrhosis, portal hypertension, ascites spontaneous, bacterial peritonitis and hepatic encephalopathy |

| Number | Unit 6 - HIV |
|--------|--|
| IM6.1 | Describe and discuss the symptoms and signs of acute HIV seroconversion |
| IM6.2 | Define and classify HIV AIDS based on the CDC criteria |
| IM6.3 | Describe and discuss the relationship between CDC count and the risk of opportunistic infections |
| IM6.4 | Describe and discuss the pathogenesis, evolution and clinical features of common HIV related opportunistic infections |
| IM6.5 | Describe and discuss the pathogenesis, evolution and clinical features of common HIV related malignancies |
| IM6.6 | Describe and discuss the pathogenesis, evolution and clinical features of common HIV related skin and oral lesions |
| IM6.9 | Choose and interpret appropriate diagnostic tests to diagnose and classify the severity of HIV-AIDS including specific tests of HIV, CDC |
| IM6.11 | Enumerate the indications and describe the findings for CT of the chest and brain and MRI |
| IM6.12 | Enumerate the indications for and interpret the results of: pulse oximetry, ABG, Chest Radiograph |
| IM6.13 | Describe and enumerate the indications and side effects of drugs for bacterial, viral and other types of diarrhea |
| IM6.16 | Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions |
| IM6.17 | Discuss and describe the principles and regimens used in post exposure prophylaxis |

| Number | Unit 7 - Rheumatologic problems |
|--------|---|
| IM7.1 | Describe the pathophysiology of autoimmune disease |
| IM7.2 | Describe the genetic basis of autoimmune disease |
| IM7.3 | Classify cause of joint pain based on the pathophysiology |
| IM7.4 | Develop a systematic clinical approach to joint pain based on the pathophysiology |
| IM7.5 | Describe and discriminate acute, subacute and chronic causes of joint pain |

| | |
|--------|---|
| IM7.6 | Discriminate, describe and discuss arthralgia from arthritis and mechanical from inflammatory causes of joint pain |
| IM7.7 | Discriminate, describe and discuss distinguishing articular from periarticular complaints |
| IM7.8 | Determine the potential causes of joint pain based on the presenting features of joint involvement |
| IM7.9 | Describe the common signs and symptoms of articular and periarticular diseases |
| IM7.10 | Describe the systemic manifestations of rheumatologic disease |
| IM7.14 | Describe the appropriate diagnostic work up based on the presumed aetiology |
| IM7.15 | Enumerate the indications for and interpret the results of : CBC, anti- CCP, RA, ANA, DNA and other tests of autoimmunity |
| IM7.16 | Enumerate the indications for arthrocentesis |
| IM7.17 | Enumerate the indications and interpret plain radiographs of joints |
| IM7.19 | Develop an appropriate treatment plan for patients with rheumatologic diseases |
| IM7.23 | Describe the basis for biologic and disease modifying therapy in rheumatologic diseases |
| IM7.27 | Determine the need for specialist consultation |

| Number | UNIT 8 - Hypertension |
|--------|--|
| IM8.1 | Describe and discuss the epidemiology, aetiology and the prevalence of primary and secondary hypertension |
| IM8.2 | Describe and discuss the pathophysiology of hypertension |
| IM8.3 | Describe and discuss the genetic basis of hypertension |
| IM8.4 | Define and classify hypertension |
| IM8.5 | Describe and discuss the differences between primary and secondary hypertension |
| IM8.6 | Define, describe and discuss and recognise hypertensive urgency and emergency |
| IM8.7 | Describe and discuss the clinical manifestations of the various aetiologies of secondary causes of hypertension |
| IM8.8 | Describe, discuss and identify target organ damage due to hypertension |
| IM8.9 | Elicit document and present a medical history that includes: duration and levels, symptoms, comorbidities, lifestyle, risk factors, family history, psychosocial and environmental factors, dietary assessment, previous and concomitant therapy |
| IM8.12 | Describe the appropriate diagnostic work up based on the presumed aetiology |
| IM8.13 | Enumerate the indications for and interpret the results of : CBC, Urine routine, BUN, Cr, Electrolytes, Uric acid, ECG |
| IM8.14 | Develop an appropriate treatment plan for essential hypertension |

| Number | Unit 9 - Anemia |
|--------|--|
| IM9.1 | Define, describe and classify anemia based on red blood cell size and reticulocyte count |
| IM9.2 | Describe and discuss the morphological characteristics, aetiology and prevalence of each of the causes of anemia |
| IM9.7 | Describe and discuss the meaning and utility of various components of the hemogram |
| IM9.8 | Describe and discuss the various tests for iron deficiency |
| IM9.11 | Describe the indications and interpret the results of a bone marrow aspirations and biopsy |
| IM9.12 | Describe, develop a diagnostic plan to determine the aetiology of anemia |
| IM9.14 | Describe the national programs for anemia prevention |
| IM9.17 | Describe the indications for blood transfusion and the appropriate use of blood components |
| IM9.18 | Describe the precautions required necessary when performing a blood transfusion |

| Number | Unit 10 - Acute Kidney Injury and Chronic renal failure |
|--------|---|
| IM10.1 | Define, describe and differentiate between acute and chronic renal failure |
| IM10.2 | Classify, describe and differentiate the pathophysiologic causes of acute renal failure |
| IM10.3 | Describe the pathophysiology and causes of pre renal ARF, renal and post renal ARF |

| | |
|---------|--|
| IM10.4 | Describe the evolution, natural history and treatment of ARF |
| IM10.5 | Describe and discuss the aetiology of CRF |
| IM10.6 | Stage Chronic Kidney Disease |
| IM10.7 | Describe and discuss the pathophysiology and clinical findings of uraemia |
| IM10.8 | Classify, describe and discuss the significance of proteinuria in CKD |
| IM10.9 | Describe and discuss the pathophysiology of anemia and hyperparathyroidism in CKD |
| IM10.10 | Describe and discuss the association between CKD glycemia and hypertension |
| IM10.11 | Describe and discuss the relationship between CAD risk factors and CKD and in dialysis |
| IM10.14 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology |
| IM10.15 | Describe the appropriate diagnostic work up based on the presumed aetiology |
| IM10.16 | Enumerate the indications for and interpret the results of : renal function tests, calcium, phosphorus, PTH, urine electrolytes, osmolality, Anion gap |
| IM10.19 | Enumerate the indications and describe the findings in renal ultrasound |
| IM10.24 | Counsel patients on a renal diet |
| IM10.26 | Describe and discuss supportive therapy in CKD including diet, anti hypertensives, glycemic therapy, dyslipidemia, anemia, hyperkalemia, hyperphosphatemia and secondary hyperparathyroidism |

| Number | Unit 11 - Diabetes Mellitus |
|---------|---|
| IM11.1 | Define and classify diabetes |
| IM11.2 | Describe and discuss the epidemiology and pathogenesis and risk factors and clinical evolution of type 1 diabetes |
| IM11.3 | Describe and discuss the epidemiology and pathogenesis and risk factors economic impact and clinical evolution of type 2 diabetes |
| IM11.4 | Describe and discuss the genetic background and the influence of the environment on diabetes |
| IM11.5 | Describe and discuss the pathogenesis and temporal evolution of microvascular and macrovascular complications of diabetes |
| IM11.6 | Describe and discuss the pathogenesis and precipitating factors, recognition and management of diabetic emergencies |
| IM11.9 | Describe and recognise the clinical features of patients who present with a diabetic emergency |
| IM11.10 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology |
| IM11.14 | Recognise the presentation of hypoglycaemia and outline the principles on its therapy |
| IM11.15 | Recognise the presentation of diabetic emergencies and outline the principles of therapy |
| IM11.16 | Discuss and describe the pharmacologic therapies for diabetes their indications, contraindications, adverse reactions and interactions |
| IM11.18 | Describe and discuss the pharmacology, indications, adverse reactions and interactions of drugs used in the prevention and treatment of target organ damage and complications of Type II Diabetes including neuropathy, nephropathy, retinopathy, hypertension, dyslipidemia and cardiovascular disease |
| IM11.22 | Enumerate the causes of hypoglycaemia and describe the counter hormone response and the initial approach and treatment |
| IM11.23 | Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of diabetic ketoacidosis |
| IM11.24 | Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of Hyperosmolar non ketotic state |

| Number | Unit 12 - Thyroid dysfunction |
|--------|---|
| IM12.1 | Describe the epidemiology and pathogenesis of hypothyroidism and hyperthyroidism including the influence of iodine deficiency and autoimmunity in the pathogenesis of thyroid disease |
| IM12.2 | Describe and discuss the genetic basis of some forms of thyroid dysfunction |
| IM12.3 | Describe and discuss the physiology of the hypothalamopituitary - thyroid axis, principles of thyroid function testing and alterations in physiologic function |
| IM12.4 | Describe and discuss the principles of radio iodine uptake in the diagnosis of thyroid disorders |

| | |
|---------|--|
| IM12.8 | Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis |
| IM12.12 | Describe and discuss the iodisation programs of the government of India |
| IM12.13 | Describe the pharmacology, indications, adverse reaction, interactions of thyroxine and antithyroid drugs |
| IM12.15 | Describe and discuss the indications of thionamide therapy, radio iodine therapy and surgery in the management of thyrotoxicosis |

| Number | Unit 15 - GI bleeding |
|---------|---|
| IM15.1 | Enumerate, describe and discuss the aetiology of upper and lower GI bleeding |
| IM15.3 | Describe and discuss the physiologic effects of acute blood and volume loss |
| IM15.10 | Enumerate the indications for endoscopy, colonoscopy and other imaging procedures in the investigation of Upper GI bleeding |
| IM15.12 | Enumerate the indications for whole blood, component and platelet transfusion and describe the clinical features and management of a mismatched transfusion |
| IM15.14 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of pressors used in the treatment of Upper GI bleed |
| IM15.15 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of acid peptic disease including <i>Helicobacter pylori</i> |
| IM15.16 | Enumerate the indications for endoscopic interventions and surgery |

| Number | Unit 16 - Diarrheal disorder |
|---------|--|
| IM16.1 | Describe and discuss the aetiology of acute and chronic diarrhea including infectious and non-infectious causes |
| IM16.2 | Describe and discuss the acute systemic consequences of diarrhea including its impact on fluid balance |
| IM16.3 | Describe and discuss the chronic effects of diarrhea including malabsorption |
| IM16.11 | Enumerate the indications for stool cultures and blood cultures in patients with acute diarrhea |
| IM16.12 | Enumerate and discuss the indications for further investigations including antibodies, colonoscopy, diagnostic imaging and biopsy in the diagnosis of chronic diarrhea |
| IM16.13 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for parasitic causes of diarrhea |
| IM16.14 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for bacterial and viral diarrhea |
| IM16.16 | Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy including immunotherapy |
| IM16.17 | Describe and enumerate the indications for surgery in inflammatory bowel disease |

| Number | Unit 17 - Headache |
|---------|--|
| IM17.1 | Define and classify headache and describe the presenting features, precipitating factors, aggravating and relieving factors of various kinds of headache |
| IM17.3 | Classify migraine and describe the distinguishing features between classical and non-classical forms of migraine |
| IM17.7 | Enumerate the indications and describe the findings in the CSF in patients with meningitis |
| IM17.10 | Enumerate the indications for emergency care admission and immediate supportive care in patients with headache |
| IM17.11 | Describe the indications, pharmacology, dose, side effects of abortive therapy in migraine |
| IM17.12 | Describe the indications, pharmacology, dose, side effects of prophylactic therapy in migraine |
| IM17.13 | Describe the pharmacology, dose, adverse reactions and regimens of drugs used in the treatment of bacterial, tubercular and viral meningitis |

| Number | Unit 18 - Cerebrovascular accident |
|--------|---|
| IM18.1 | Describe the functional and the vascular anatomy of the brain |

| | |
|---------|---|
| IM18.2 | Classify cerebrovascular accidents and describe the aetiology, predisposing genetic and risk factors pathogenesis of hemorrhagic and non-hemorrhagic stroke |
| IM18.4 | Identify the nature of the cerebrovascular accident based on the temporal evolution and resolution of the illness |
| IM18.8 | Describe and distinguish, based on the clinical presentation, the types of bladder dysfunction seen in CNS disease |
| IM18.11 | Describe the initial supportive management of a patient presenting with a cerebrovascular accident (CVA) |
| IM18.12 | Enumerate the indications for and describe acute therapy of non hemorrhagic stroke including the use of thrombolytic agents |
| IM18.13 | Enumerate the indications for and describe the role of anti platelet agents in non hemorrhagic stroke |
| IM18.14 | Describe the initial management of a hemorrhagic stroke |
| IM18.15 | Enumerate the indications for surgery in a hemorrhagic stroke |

| Number | Unit 20 - Envenomation |
|--------|--|
| IM20.1 | Enumerate the local poisonous snakes and describe the distinguishing marks of each |
| IM20.3 | Describe the initial approach to the stabilisation of the patient who presents with snake bite |
| IM20.7 | Enumerate the indications and describe the pharmacology, dose, adverse reactions, hypersensitivity reactions of anti snake venom |
| IM20.8 | Describe the diagnosis, initial approach stabilisation and therapy of scorpion envenomation |
| IM20.9 | Describe the diagnosis initial approach stabilisation and therapy of bee sting allergy |

| Number | Unit 21 - Poisoning |
|--------|--|
| IM21.1 | Describe the initial approach to the stabilization of the patient who presents with poisoning |
| IM21.2 | Enumerate the common plant poisons seen in your area and describe their toxicology, clinical features, prognosis and specific approach to detoxification |
| IM21.3 | Enumerate the common corrosives used in your area and describe their toxicology, clinical features, prognosis and approach to therapy |
| IM21.4 | Enumerate the commonly observed drug overdose in your area and describe their toxicology, clinical features, prognosis and approach to therapy |
| IM21.8 | Enumerate the indications for psychiatric consultation and describe the precautions to be taken in a patient with suspected suicidal ideation / gesture |

| Number | Unit 22 - Mineral, Fluid Electrolyte and Acid base Disorder |
|---------|--|
| IM22.1 | Enumerate the causes of hypercalcemia and distinguish the features of PTH vs non PTH mediated hypercalcemia |
| IM22.2 | Describe the aetiology, clinical manifestations, diagnosis and clinical approach to primary hyperparathyroidism |
| IM22.3 | Describe the approach to the management of hypercalcemia |
| IM22.4 | Enumerate the components and describe the genetic basis of the multiple endocrine neoplasia syndrome |
| IM22.5 | Enumerate the causes and describe the clinical features and the correct approach to the diagnosis and management of the patient with hyponatremia |
| IM22.6 | Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hyponatremia |
| IM22.7 | Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hypokalemia |
| IM22.8 | Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hyperkalemia |
| IM22.9 | Enumerate the causes and describe the clinical and laboratory features of metabolic acidosis |
| IM22.10 | Enumerate the causes of describe the clinical and laboratory features of metabolic alkalosis |
| IM22.11 | Enumerate the causes and describe the clinical and laboratory features of respiratory acidosis |
| IM22.12 | Enumerate the causes and describe the clinical and laboratory features of respiratory alkalosis |

| Number | Unit 23 - Nutritional and Vitamin Deficiencies |
|--------|---|
| IM23.1 | Discuss and describe the methods of nutritional assessment in an adult and calculation of caloric requirements during illnesses |
| IM23.2 | Discuss and describe the causes and consequences of protein caloric malnutrition in the hospital |
| IM23.3 | Discuss and describe the aetiology, causes, clinical manifestations, complications, diagnosis and management of common vitamin deficiencies |
| IM23.4 | Enumerate the indications for enteral and parenteral nutrition in critically ill patients |

| Number | Unit 24 - Geriatrics |
|---------|---|
| IM24.1 | Describe and discuss the epidemiology, pathogenesis, clinical evolution, presentation and course of common diseases in the elderly |
| IM24.3 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of acute confusional states |
| IM24.4 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vascular events in the elderly |
| IM24.5 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of depression in the elderly |
| IM24.6 | Describe and discuss the aetiopathogenesis, causes, clinical presentation, difference in discussion presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of dementia in the elderly |
| IM24.7 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of personality changes in the elderly |
| IM24.8 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of osteoporosis in the elderly |
| IM24.9 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of CVA in the elderly |
| IM24.10 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of COPD in the elderly |
| IM24.11 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery |
| IM24.12 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of degenerative joint disease |
| IM24.13 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of falls in the elderly |
| IM24.14 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of common fractures in the elderly |
| IM24.15 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vision and visual loss in the elderly |
| IM24.16 | Describe and discuss the principles of physical and social rehabilitation, functional assessment, role of physiotherapy and occupational therapy in the management of disability in the elderly |
| IM24.17 | Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly |
| IM24.18 | Describe the impact of the demographic changes in ageing on the population |
| IM24.19 | Enumerate and describe the social problems in the elderly including isolation, abuse, change in family structure and their impact on health. |
| IM24.20 | Enumerate and describe social interventions in the care of elderly including domiciliary discussion services, rehabilitation facilities, old age homes and state interventions |
| IM24.21 | Enumerate and describe ethical issues in the care of the elderly |
| IM24.22 | Describe and discuss the aetiopathogenesis, clinical presentation, complications, assessment and management of nutritional disorders in the elderly |

| Number | Unit 25 - Miscellaneous Infections |
|--------|---|
| IM25.1 | Describe and discuss the response and the influence of host immune status, risk factors and comorbidities on zoonotic diseases (e.g. Leptospirosis, Rabies) and non-febrile infectious disease (e.g. Tetanus) |

| | |
|--------|---|
| IM25.2 | Discuss and describe the common causes, pathophysiology and manifestations of these diseases |
| IM25.3 | Describe and discuss the pathophysiology and manifestations of these diseases |
| IM25.7 | Order and interpret diagnostic tests based on the differential diagnosis including: CBC with differential, blood biochemistry, peripheral smear, urinary analysis with sediment, Chest X ray, blood and urine cultures, sputum gram stain and cultures, sputum AFB and cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture and QBC |

| Number | Unit 26 - The role of the physician in the community |
|---------|--|
| IM26.1 | Enumerate and describe professional qualities and roles of a physician |
| IM26.2 | Describe and discuss the commitment to lifelong learning as an important part of physician growth |
| IM26.3 | Describe and discuss the role of non-maleficence as a guiding principle in patient care |
| IM26.4 | Describe and discuss the role of autonomy and shared responsibility as a guiding principle in patient care |
| IM26.5 | Describe and discuss the role of beneficence of a guiding principle in patient care |
| IM26.6 | Describe and discuss the role of a physician in health care system |
| IM26.7 | Describe and discuss the role of justice as a guiding principle in patient care |
| IM26.8 | Identify discuss medicolegal, socioeconomic and ethical issues as it pertains to organ donation |
| IM26.9 | Identify, discuss and defend medicolegal, sociocultural, economic and ethical issues as it pertains to rights, equity and justice in access to health care |
| IM26.10 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to confidentiality in patient care |
| IM26.11 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to patient autonomy, patient rights and shared responsibility in health care |
| IM26.12 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to decision making in health care including advanced directives and surrogate decision making |
| IM26.13 | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to decision making in emergency care including situations where patients do not have the capability or capacity to give consent |
| IM26.17 | Identify, discuss physician's role and responsibility to society and the community that she/ he serves |
| IM26.44 | Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues pertaining to medical negligence |
| IM26.45 | Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues pertaining to malpractice |

Respiratory Medicine (TB & RD)

| Number | Unit 1 - Tuberculosis |
|--------|--|
| CT1.1 | Describe and discuss the epidemiology of tuberculosis and its impact on the work, life and economy of India |
| CT1.2 | Describe and discuss the microbiology of tubercle bacillus, mode of transmission, pathogenesis, clinical evolution and natural history of pulmonary and extra pulmonary forms (including lymph node, bone and CNS) |
| CT1.3 | Discuss and describe the impact of co-infection with HIV and other co-morbid conditions. Like diabetes on the natural history of tuberculosis |
| CT1.4 | Describe the epidemiology, the predisposing factors and microbial and therapeutic factors that determine resistance to drugs |
| CT1.8 | Generate a differential diagnosis based on the clinical history and evolution of the disease that prioritises the most likely diagnosis |
| CT1.9 | Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputum culture and sensitivity, pleural fluid examination and culture, HIV testing |
| CT1.12 | Enumerate the indications for tests including: serology, special cultures and polymerase chain reaction and sensitivity testing |
| CT1.13 | Describe and discuss the origin, indications, technique of administration, efficacy and complications of the BCG vaccine |
| CT1.14 | Describe and discuss the pharmacology of various anti-tuberculous agents, their indications, contraindications, interactions and adverse reactions |

| | |
|--|--|
| CT1.15 | Prescribe an appropriate antituberculosis regimen based on the location of disease, smear positivity and negativity and comorbidities based on current national guidelines including directly observed tuberculosis therapy (DOTS) |
| CT1.16 | Describe the appropriate precautions, screening, testing and indications for chemoprophylaxis for contacts and exposed health care workers |
| CT1.17 | Define criteria for the cure of Tuberculosis; describe and recognise the features of drug resistant tuberculosis, prevention and therapeutic regimens |
| CT1.18 | Educate health care workers on National Program of Tuberculosis and administering and monitoring the DOTS program |
| CT1.19 | Communicate with patients and family in an empathetic manner about the diagnosis, therapy |
| Number Unit 2: Obstructive airway disease | |
| CT2.1 | Define and classify obstructive airway disease |
| CT2.2 | Describe and discuss the epidemiology, risk factors and evolution of obstructive airway disease |
| CT2.3 | Enumerate and describe the causes of acute episodes in patients with obstructive airway disease |
| CT2.4 | Describe and discuss the physiology and pathophysiology of hypoxia and hypercapnea |
| CT2.5 | Describe and discuss the genetics of alpha 1 antitrypsin deficiency in emphysema |
| CT2.6 | Describe the role of the environment in the cause and exacerbation of obstructive airway disease |
| CT2.7 | Describe and discuss allergic and non-allergic precipitants of obstructive airway disease |
| CT2.10 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology |
| CT2.11 | Describe, discuss and interpret pulmonary function tests |
| CT2.13 | Describe the appropriate diagnostic work up based on the presumed aetiology |
| CT2.14 | Enumerate the indications for and interpret the results of : pulse oximetry, ABG, Chest Radiograph |
| CT2.15 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology |
| CT2.16 | Discuss and describe therapies for OAD including bronchodilators, leukotriene inhibitors, mast cell stabilisers, theophylline, inhaled and systemic steroids, oxygen and immunotherapy |
| CT2.17 | Describe and discuss the indications for vaccinations in OAD |
| CT2.18 | Develop a therapeutic plan including use of bronchodilators and inhaled corticosteroids |
| CT2.19 | Develop a management plan for acute exacerbations including bronchodilators, systemic steroids, antimicrobial therapy |
| CT2.20 | Describe and discuss the principles and use of oxygen therapy in the hospital and at home |
| CT2.24 | Recognize the impact of OAD on patient's quality of life, well being, work and family |
| CT2.25 | Discuss and describe the impact of OAD on the society and workplace |
| CT2.26 | Discuss and describe preventive measures to reduce OAD in workplaces |

Psychiatry

| | |
|---------------|--|
| Number | Unit 1 - Doctor patient relationship |
| PS1.1 | Establish rapport and empathy with patients |
| PS1.2 | Describe the components of communication |
| PS1.3 | Demonstrate breaking of bad news in a simulated environment |
| PS1.4 | Describe and demonstrate the importance of confidentiality in patient encounters |

| | |
|---------------|---|
| Number | Unit 2 - Mental health |
| PS2.1 | Define stress and describe its components and causes |
| PS2.2 | Describe the role of time management, study skills, balanced diet and sleep wake habits in stress avoidance |
| PS2.3 | Define and describe the principles and components of learning memory and emotions |
| PS2.4 | Describe the principles of personality development and motivation |
| PS2.5 | Define and distinguish normality and abnormality |

| Number | Unit 3 - Introduction to psychiatry |
|--------|---|
| PS3.1 | Describe the growth of psychiatry as a medical specialty, its history and contribution to society |
| PS3.2 | Enumerate, describe and discuss important signs & symptoms of common mental disorders |
| PS3.3 | Elicit, present and document a history in patients presenting with a mental disorder |
| PS3.4 | Describe the importance of establishing rapport with patients |
| PS3.5 | Perform, demonstrate and document a mini mental examination |
| PS3.6 | Describe and discuss biological, psychological & social factors & their interactions in the causation of mental disorders |
| PS3.7 | Enumerate and describe common organic psychiatric disorders, magnitude, etiology and clinical features |
| PS3.8 | Enumerate and describe the essential investigations in patients with organic psychiatric disorders |
| PS3.9 | Describe the steps and demonstrate in a simulated environment family education in patients with organic psychiatric disorders |
| PS3.10 | Enumerate and describe the pharmacologic basis and side effects of drugs used in psychiatric disorders |
| PS3.11 | Enumerate the appropriate conditions for specialist referral in patients with psychiatric disorders |
| PS3.12 | Describe, discuss and distinguish psychotic & non-psychotic (Mood, Anxiety, Stress related) disorders |

| Number | Unit 4 -Substance use disorders |
|--------|---|
| PS4.1 | Describe the magnitude and etiology of alcohol and substance use disorders |
| PS4.2 | Elicit, describe and document clinical features of alcohol and substance use disorders |
| PS4.3 | Enumerate and describe the indications and interpret laboratory and other tests used in alcohol and substance abuse disorders |
| PS4.4 | Describe the treatment of alcohol and substance abuse disorders including behavioral and pharmacologic therapy |
| PS4.5 | Demonstrate family education in a patient with alcohol and substance abuse in a simulated environment |
| PS4.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in alcohol and substance abuse |
| PS4.7 | Enumerate the appropriate conditions for specialist referral in patients with alcohol and substance abuse disorders |

| Number | Unit 5 - Psychotic disorders |
|--------|---|
| PS5.1 | Classify and describe the magnitude and etiology of schizophrenia & other psychotic disorders |
| PS5.2 | Enumerate, elicit, describe and document clinical features, positive and negative symptoms of schizophrenia |
| PS5.3 | Describe the treatment of schizophrenia including behavioural and pharmacologic therapy |
| PS5.4 | Demonstrate family education in a patient with schizophrenia in a simulated environment |
| PS5.5 | Enumerate and describe the pharmacologic basis and side effects of drugs used in schizophrenia |
| PS5.6 | Enumerate the appropriate conditions for specialist referral in patients with psychotic disorders |

| Number | Unit 6 - Mood disorder |
|--------|--|
| PS6.1 | Classify and describe the magnitude and etiology of depression |
| PS6.2 | Enumerate, elicit, describe and document clinical features in patients with depression |
| PS6.3 | Enumerate and describe the indications and interpret laboratory and other tests used in depression |
| PS6.4 | Describe the treatment of depression including behavioural and pharmacologic therapy |
| PS6.5 | Demonstrate family education in a patient with depression in a simulated environment |
| PS6.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in depression |
| PS6.7 | Enumerate the appropriate conditions for specialist referral in patients with depression |

| Number | Unit 7 - Bipolar disorder |
|--------|---|
| PS7.1 | Classify and describe the magnitude and etiology of bipolar disorders |

| | |
|-------|---|
| PS7.2 | Enumerate, elicit, describe and document clinical features in patients with bipolar disorders |
| PS7.3 | Enumerate and describe the indications and interpret laboratory and other tests used in bipolar disorders |
| PS7.4 | Describe the treatment of bipolar disorders including behavioural and pharmacologic therapy |
| PS7.5 | Demonstrate family education in a patient with bipolar disorders in a simulated environment |
| PS7.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in bipolar disorders |
| PS7.7 | Enumerate the appropriate conditions for specialist referral in patients with bipolar disorders |

| Number | Unit 8 - Anxiety disorders |
|--------|---|
| PS8.1 | Enumerate and describe the magnitude and etiology of anxiety disorders |
| PS8.2 | Enumerate, elicit, describe and document clinical features in patients with anxiety disorders |
| PS8.3 | Enumerate and describe the indications and interpret laboratory and other tests used in anxiety disorders |
| PS8.4 | Describe the treatment of anxiety disorders including behavioural and pharmacologic therapy |
| PS8.5 | Demonstrate family education in a patient with anxiety disorders in a simulated environment. |
| PS8.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in anxiety disorders |
| PS8.7 | Enumerate the appropriate conditions for specialist referral in anxiety disorders |

| Number | Unit 9 - Stress related disorders |
|--------|--|
| PS9.1 | Enumerate and describe the magnitude and etiology of stress related disorders |
| PS9.2 | Enumerate, elicit, describe and document clinical features in patients with stress related disorders |
| PS9.3 | Enumerate and describe the indications and interpret laboratory and other tests used in stress related disorders |
| PS9.4 | Describe the treatment of stress related disorders including behavioural and psychosocial therapy |
| PS9.5 | Demonstrate family education in a patient with stress related disorders in a simulated environment |
| PS9.6 | Enumerate and describe the pharmacologic basis and side effects of drugs used in stress related disorders |
| PS9.7 | Enumerate the appropriate conditions for specialist referral in stress disorders |

| Number | Unit 18 - Therapeutics |
|--------|---|
| PS18.1 | Enumerate the indications and describe the pharmacology, dose and side effects of commonly use drugs in psychiatric disorders |
| PS18.2 | Enumerate the indications for modified electroconvulsive therapy |
| PS18.3 | Enumerate and describe the principles and role of psychosocial interventions in psychiatric illness including psychotherapy, behavioural therapy and rehabilitation |

Dermatology, Venereology & leprosy

| Number | Unit 1 - Acne, (Etiopathogenesis & Management) |
|--------|--|
| DR1.1 | Enumerate the causative and risk factors of acne |
| DR1.3 | Describe the treatment and preventive measures for various kinds of acne |

| Number | Unit 2 - Vitiligo vulgaris |
|--------|------------------------------------|
| DR2.2 | Describe the treatment of vitiligo |

| Number | Unit 3 - Papulosquamous disorders |
|--------|-----------------------------------|
|--------|-----------------------------------|

| | |
|-------|--|
| DR3.1 | Identify and distinguish psoriatic lesions from other causes |
| DR3.3 | Enumerate the indications for and describe the various modalities of treatment of psoriasis. |

| | |
|---------------|---|
| Number | Unit 4 - Lichen Planus |
| DR4.2 | Enumerate and describe the treatment modalities for lichen planus |

| | |
|---------------|--|
| Number | Unit 5 - Scabies |
| DR5.1 | Describe the etiology, microbiology, pathogenesis, natural history, clinical features, presentations and complications of scabies in adults and children |
| DR5.3 | Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies |

| | |
|---------------|--|
| Number | Unit 6 - Pediculosis |
| DR6.1 | Describe the etiology pathogenesis and diagnostic features of pediculosis in adults and children |

| | |
|---------------|--|
| Number | Unit 7 - Dermatophytosis |
| DR7.1 | Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of dermatophytosis in adults and children |
| DR7.3 | Describe the pharmacology and action of antifungal (systemic and topical) agents. Enumerate side effects of antifungal therapy |

| | |
|---------------|---|
| Number | Unit 9 - Leprosy |
| DR9.1 | Classify, describe the epidemiology, etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of Leprosy |
| DR9.4 | Enumerate, describe and identify lepra reactions and supportive measures and therapy of lepra reactions |
| DR9.5 | Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for various classes of leprosy based on national guidelines |
| DR9.6 | Describe the treatment of Leprosy based on the current guidelines |
| DR9.7 | Enumerate and describe the complications of leprosy and its Management. |

| | |
|---------------|--|
| Number | Unit 10 - Sexually Transmitted Diseases |
| DR10.3 | Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for syphilis |
| DR10.4 | Describe the prevention of congenital syphilis |
| DR10.6 | Describe the etiology, diagnostic and clinical features of nonsyphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) |
| DR10.8 | Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the nonsyphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) |
| DR10.9 | Describe the syndromic approach to ulcerative sexually transmitted disease. |
| DR10.10 | Describe the etiology, diagnostic and clinical features and management of gonococcal and non-gonococcal urethritis. |
| DR10.11 | Describe the etiology, diagnostic and clinical features and management of vaginal discharge. |

| | |
|---------------|---|
| Number | Unit 11 - HIV |
| DR11.1 | Describe the etiology, pathogenesis and clinical features of the dermatologic manifestations of HIV |
| DR11.3 | Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for dermatologic lesions in HIV |

| | |
|---------------|--|
| Number | Unit 12 - Dermatitis and Eczema |
| DR12.1 | Describe the aetiopathogenesis of eczema |

| | |
|--------|---|
| DR12.3 | Classify and grade eczema |
| DR12.4 | Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the treatment of eczema |

| | |
|---------------|--|
| Number | Unit 14 - Urticaria Angioedema |
| DR14.1 | Describe the etiology, pathogenesis and clinical precipitating features and classification of Urticaria and angioedema. |
| DR14.5 | Enumerate the indications and describe the pharmacology indications and adverse reaction of drugs used in the urticaria and angioedema |

| | |
|---------------|---|
| Number | Unit 17 - Nutritional Deficiencies and Skin |
| DR17.1 | Enumerate and identify the cutaneous findings in vitamin A deficiency |
| DR17.2 | Enumerate and describe the various skin changes in Vitamin B complex deficiency |
| DR17.3 | Enumerate and describe the various changes in Vitamin C deficiency K |
| DR17.4 | Enumerate and describe the various changes in Zinc deficiency |

| | |
|---------------|---|
| Number | Unit 18 - Systemic diseases and the skin |
| DR18.1 | Enumerate the cutaneous features of Type 2 diabetes |
| DR18.2 | Enumerate the cutaneous features of hypo/hyper-thyroidism |

Practical Syllabus: Topic and the competencies
General Medicine

| Number | Unit 1 - Heart Failure |
|--------|---|
| IM1.10 | Elicit document and present an appropriate history that will establish the diagnosis, cause and severity of heart failure including: presenting complaints, precipitating and exacerbating factors, risk factors exercise tolerance, changes in sleep patterns, features suggestive of infective endocarditis |
| IM1.11 | Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and estimate its severity including: measurement of pulse, blood pressure and respiratory rate, jugular venous forms and pulses, peripheral pulses, conjunctiva and fundus, lung, cardiac examination including palpation and auscultation with identification of heart sounds and murmurs, abdominal distension and splenic palpation |
| IM1.12 | Demonstrate peripheral pulse, volume, character, quality and variation in various causes of heart failure |
| IM1.13 | Measure the blood pressure accurately, recognise and discuss alterations in blood pressure in valvular heart disease and other causes of heart failure and cardiac tamponade |
| IM1.14 | Demonstrate and measure jugular venous distension |
| IM1.15 | Identify and describe the timing, pitch quality conduction and significance of precordial murmurs and their variations |
| | |
| IM1.18 | Perform and interpret a 12 lead ECG |
| IM1.19 | Enumerate the indications for and describe the findings of heart failure with the following conditions including: 2D echocardiography, brain natriuretic peptide, exercise testing, nuclear medicine testing and coronary angiogram |
| IM1.22 | Assist and demonstrate the proper technique in collecting specimen for blood culture |
| IM1.26 | Develop document and present a management plan for patients with heart failure based on type of failure, underlying aetiology |
| IM1.30 | Administer an intramuscular injection with an appropriate explanation to the patient |

| Number | Unit 2 - Acute Myocardial Infarction/ IHD |
|--------|---|
| IM2.6 | Elicit document and present an appropriate history that includes onset evolution, presentation risk factors, family history, comorbid conditions, complications, medication, history of atherosclerosis, IHD and coronary syndromes |
| IM2.7 | Perform, demonstrate and document a physical examination including a vascular and cardiac examination that is appropriate for the clinical presentation |
| IM2.8 | Generate document and present a differential diagnosis based on the clinical presentation and prioritise based on "cannot miss", most likely diagnosis and severity |
| IM2.9 | Distinguish and differentiate between stable and unstable angina and AMI based on the clinical presentation |
| IM2.10 | Order, perform and interpret an ECG |
| IM2.11 | Order and interpret a Chest X-ray and markers of acute myocardial infarction |
| IM2.12 | Choose and interpret a lipid profile and identify the desirable lipid profile in the clinical context |
| IM2.21 | Observe and participate in a controlled environment an ACLS program |
| IM2.22 | Perform and demonstrate in a mannequin BLS |

| Number | Unit 3 - Pneumonia |
|--------|---|
| IM3.4 | Elicit document and present an appropriate history including the evolution, risk factors including immune status and occupational risk |
| IM3.5 | Perform, document and demonstrate a physical examination including general examination and appropriate examination of the lungs that establishes the diagnosis, complications and severity of disease |
| IM3.6 | Generate document and present a differential diagnosis based on the clinical features, and prioritise the diagnosis based on the presentation |
| IM3.7 | Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputum gram stain, sputum culture and sensitivity, pleural fluid examination and culture, HIV testing and ABG |
| IM3.8 | Demonstrate in a mannequin and interpret results of an arterial blood gas examination |

| | |
|-------|--|
| IM3.9 | Demonstrate in a mannequin and interpret results of a pleural fluid aspiration |
|-------|--|

| | |
|--------|--|
| IM3.10 | Demonstrate the correct technique in a mannequin and interpret results of a blood culture |
| IM3.11 | Describe and enumerate the indications for further testing including HRCT, Viral cultures, PCR and specialized testing |
| IM3.12 | Select, describe and prescribe based on the most likely aetiology, an appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum |
| IM3.13 | Select, describe and prescribe based on culture and sensitivity appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum. |
| IM3.14 | Perform and interpret a sputum gram stain and AFB |

| Number | Unit 4 - Fever and febrile syndromes |
|--------|---|
| IM4.9 | Elicit document and present a medical history that helps delineate the aetiology of fever that includes the evolution and pattern of fever, associated symptoms, immune status, comorbidities, risk factors, exposure through occupation, travel and environment and medication use |
| IM4.10 | Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen) |
| IM4.13 | Perform and interpret a sputum gram stain |
| IM4.14 | Perform and interpret a sputum AFB |
| IM4.15 | Perform and interpret a malarial smear |
| IM4.17 | Observe and assist in the performance of a bone marrow aspiration and biopsy in a simulated environment |
| IM4.19 | Assist in the collection of blood and wound cultures |
| IM4.20 | Interpret a PPD (Mantoux) |
| IM4.23 | Prescribe drugs for malaria based on the species identified, prevalence of drug resistance and national programs |

| Number | Unit 5 - Liver disease |
|--------|---|
| IM5.9 | Elicit document and present a medical history that helps delineate the aetiology of the current presentation and includes clinical presentation, risk factors, drug use, sexual history, vaccination history and family history |
| IM5.10 | Perform a systematic examination that establishes the diagnosis and severity that includes nutritional status, mental status, jaundice, abdominal distension ascites, features of portosystemic hypertension and hepatic encephalopathy |
| IM5.12 | Choose and interpret appropriate diagnostic tests including: CBC, bilirubin, function tests, Hepatitis serology and ascitic fluid examination in patient with liver diseases. |
| IM5.14 | Outline a diagnostic approach to liver disease based on hyperbilirubinemia, liver function changes and hepatitis serology |
| IM5.15 | Assist in the performance and interpret the findings of an ascitic fluid analysis |

| Number | Unit 6 - HIV |
|--------|---|
| IM6.7 | Elicit document and present a medical history that helps delineate the aetiology of the current presentation and includes risk factors for HIV, mode of infection, other sexually transmitted diseases, risks for opportunistic infections and nutritional status |
| IM6.8 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom |
| IM6.10 | Choose and interpret appropriate diagnostic tests to diagnose opportunistic infections including CBC, sputum examination and cultures, blood cultures, stool analysis, CSF analysis and Chest radiographs |
| IM6.14 | Perform and interpret AFB sputum |
| IM6.15 | Demonstrate in a model the correct technique to perform a lumbar puncture |

| Number | Unit 7 - Rheumatologic problems: |
|--------|---|
| IM7.11 | Elicit document and present a medical history that will differentiate the aetiologies of disease |
| IM7.12 | Perform a systematic examination of all joints, muscle and skin that will establish the diagnosis and severity of disease |

| Number | Unit 8 - Hypertension |
|--------|--|
| IM8.10 | Perform a systematic examination that includes : an accurate measurement of blood pressure, fundus examination, examination of vasculature and heart |
| IM8.11 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology |
| IM8.15 | Recognise, prioritise and manage hypertensive emergencies |
| IM8.17 | Perform and interpret a 12 lead ECG |

| Number | Unit 9 - Anemia |
|--------|--|
| IM9.3 | Elicit document and present a medical history that includes symptoms, risk factors including GI bleeding, prior history, medications, menstrual history, and family history |
| IM9.4 | Perform a systematic examination that includes : general examination for pallor, oral examination, DOAP session of hyper dynamic circulation, lymph node and splenic examination |
| IM9.5 | Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology |
| IM9.6 | Describe the appropriate diagnostic work up based on the presumed aetiology |
| IM9.9 | Order and interpret tests for anemia including hemogram, red cell indices, reticulocyte count, iron studies, B12 and folate |
| IM9.10 | Describe, perform and interpret a peripheral smear and stool occult blood |
| IM9.13 | Prescribe replacement therapy with iron, B12, folate |
| IM9.19 | Assist in a blood transfusion |

| Number | Unit 10 - Acute Kidney Injury and Chronic renal failure |
|---------|--|
| IM10.12 | Elicit document and present a medical history that will differentiate the aetiologies of disease, distinguish acute and chronic disease, identify predisposing conditions, nephrotoxic drugs and systemic causes |
| IM10.13 | Perform a systematic examination that establishes the diagnosis and severity including determination of volume status, presence of edema and heart failure, features of uraemia and associated systemic disease |
| IM10.17 | Describe and calculate indices of renal function based on available laboratories including FENa (Fractional Excretion of Sodium) and CrCl (Creatinine Clearance) |
| IM10.18 | Identify the ECG findings in hyperkalemia |
| IM10.20 | Describe and discuss the indications to perform arterial blood gas analysis: interpret the data |
| IM10.21 | Describe and discuss the indications for and insert a peripheral intravenous catheter |
| IM10.22 | Describe and discuss the indications, demonstrate in a model and assist in the insertion of a central venous or a dialysis catheter |

| Number | Unit 11 - Diabetes Mellitus |
|---------|--|
| IM11.7 | Elicit document and present a medical history that will differentiate the aetiologies of diabetes including risk factors, precipitating factors, lifestyle, nutritional history, family history, medication history, co-morbidities and target organ disease |
| IM11.8 | Perform a systematic examination that establishes the diagnosis and severity that includes skin, peripheral pulses, blood pressure measurement, fundus examination, detailed examination of the foot (pulses, nervous and deformities and injuries) |
| IM11.11 | Order and interpret laboratory tests to diagnose diabetes and its complications including: glucoses, glucose tolerance test, glycosylated hemoglobin, urinary micro albumin, ECG, electrolytes, ABG, ketones, renal function tests and lipid profile |
| IM11.12 | Perform and interpret a capillary blood glucose test |
| IM11.13 | Perform and interpret a urinary ketone estimation with a dipstick |

| Number | Unit 12 - Thyroid dysfunction |
|--------|--|
| IM12.5 | Elicit document and present an appropriate history that will establish the diagnosis cause of thyroid dysfunction and its severity |
| IM12.6 | Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and severity including systemic signs of thyrotoxicosis and hypothyroidism, palpation of the pulse for rate and rhythm abnormalities, neck palpation of the thyroid and lymph nodes and cardiovascular findings |
| IM12.7 | Demonstrate the correct technique to palpate the thyroid |

| | |
|---------|---|
| IM12.9 | Order and interpret diagnostic testing based on the clinical diagnosis including CBC, thyroid function tests and ECG and radio iodine uptake and scan |
| IM12.10 | Identify atrial fibrillation, pericardial effusion and bradycardia on ECG |
| IM12.11 | Interpret thyroid function tests in hypo and hyperthyroidism |

| Number | Unit 13 - Common malignancies |
|---------|--|
| IM13.7 | Elicit document and present a history that will help establish the aetiology of cancer and includes the appropriate risk factors, duration and evolution |
| IM13.8 | Perform and demonstrate a physical examination that includes an appropriate general and local examination that excludes the diagnosis, extent spread and complications of cancer |
| IM13.9 | Demonstrate in a mannequin the correct technique for performing breast exam, rectal examination and cervical examination and pap smear |
| IM13.10 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis |
| IM13.11 | Order and interpret diagnostic testing based on the clinical diagnosis including CBC and stool occult blood and prostate specific antigen |

| Number | Unit 14 - Obesity |
|--------|--|
| IM14.6 | Elicit and document and present an appropriate history that includes the natural history, dietary history, modifiable risk factors, family history, clues for secondary causes and motivation to lose weight |
| IM14.7 | Perform, document and demonstrate a physical examination based on the history that includes general examination, measurement of abdominal obesity, signs of secondary causes and comorbidities |
| IM14.8 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis |
| IM14.9 | Order and interpret diagnostic tests based on the clinical diagnosis including blood glucose, lipids, thyroid function tests etc. |

| Number | Unit 15 - GI bleeding |
|---------|---|
| IM15.2 | Enumerate, describe and discuss the evaluation and steps involved in stabilizing a patient who presents with acute volume loss and GI bleed |
| IM15.4 | Elicit and document and present an appropriate history that identifies the route of bleeding, quantity, grade, volume loss, duration, etiology, comorbid illnesses and risk factors |
| IM15.5 | Perform, demonstrate and document a physical examination based on the history that includes general examination, volume assessment and appropriate abdominal examination |
| IM15.6 | Distinguish between upper and lower gastrointestinal bleeding based on the clinical features |
| IM15.7 | Demonstrate the correct technique to perform an anal and rectal examination in a mannequin or equivalent |
| IM15.8 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis |
| IM15.9 | Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, PT and PTT, stool examination, occult blood, liver function tests, H.pylori test. |
| IM15.11 | Develop, document and present a treatment plan that includes fluid resuscitation, blood and blood component transfusion, and specific therapy for arresting blood loss |
| IM15.13 | Observe cross matching and blood / blood component transfusion |
| IM15.17 | Determine appropriate level of specialist consultation |
| IM15.18 | Counsel the family and patient in an empathetic non-judgmental manner on the diagnosis and therapeutic options |

| Number | Unit 16 - Diarrheal disorder |
|--------|--|
| IM16.4 | Elicit and document and present an appropriate history that includes the natural history, dietary history, travel , sexual history and other concomitant illnesses |
| IM16.5 | Perform, document and demonstrate a physical examination based on the history that includes general examination, including an appropriate abdominal examination |
| IM16.6 | Distinguish between diarrhea and dysentery based on clinical features |
| IM16.7 | Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis |

| | |
|---------|---|
| IM16.8 | Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, and stool examination |
| IM16.9 | Identify common parasitic causes of diarrhea under the microscope in a stool specimen |
| IM16.10 | Identify vibrio cholera in a hanging drop specimen |
| IM16.15 | Distinguish based on the clinical presentation Crohn's disease from Ulcerative Colitis |

| Number | Unit 17 - Headache |
|--------|---|
| IM17.2 | Elicit and document and present an appropriate history including aura, precipitating aggravating and relieving factors, associated symptoms that help identify the cause of headaches |
| IM17.4 | Perform and demonstrate a general neurologic examination and a focused examination for signs of intracranial tension including neck signs of meningitis |
| IM17.5 | Generate document and present a differential diagnosis based on the clinical features, and prioritise the diagnosis based on the presentation |
| IM17.6 | Choose and interpret diagnostic testing based on the clinical diagnosis including imaging |
| IM17.8 | Demonstrate in a mannequin or equivalent the correct technique for performing a lumbar puncture |
| IM17.9 | Interpret the CSF findings when presented with various parameters of CSF fluid analysis |

| Number | Unit 18 - Cerebrovascular accident |
|---------|--|
| IM18.3 | Elicit and document and present an appropriate history including onset, progression, precipitating and aggravating relieving factors, associated symptoms that help identify the cause of the cerebrovascular accident |
| IM18.5 | Perform, demonstrate & document physical examination that includes general and a detailed neurologic examination as appropriate, based on the history |
| IM18.9 | Choose and interpret the appropriate diagnostic and imaging test that will delineate the anatomy and underlying cause of the lesion |
| IM18.10 | Choose and interpret the appropriate diagnostic testing in young patients with a cerebrovascular accident (CVA) |
| IM18.16 | Enumerate the indications describe and observe the multidisciplinary rehabilitation of patients with a CVA |

| Number | Unit 19 - Movement disorders |
|--------|---|
| IM19.3 | Elicit and document and present an appropriate history including onset, progression precipitating and aggravating relieving factors, associated symptoms that help identify the cause of the movement disorders |
| IM19.4 | Perform, demonstrate and document a physical examination that includes a general examination and a detailed neurologic examination using standard movement rating scales |
| IM19.5 | Generate document and present a differential diagnosis and prioritise based on the history and physical examination |
| IM19.6 | Make a clinical diagnosis regarding on the anatomical location, nature and cause of the lesion based on the clinical presentation and findings |
| IM19.7 | Choose and interpret diagnostic and imaging tests in the diagnosis of movement disorders |

| Number | Unit 20 - Envenomation |
|--------|--|
| IM20.2 | Describe, demonstrate in a volunteer or a mannequin and educate (to other health care workers / patients) the correct initial management of patient with a snake bite in the field |
| IM20.4 | Elicit and document and present an appropriate history, the circumstance, time, kind of snake, evolution of symptoms in a patient with snake bite |
| IM20.5 | Perform a systematic examination, document and present a physical examination that includes general examination, local examination, appropriate cardiac and neurologic examination |
| IM20.6 | Choose and interpret the appropriate diagnostic testing in patients with snake bites |

| Number | Unit 21 - Poisoning |
|--------|--|
| IM21.5 | Observe and describe the functions and role of a poison center in suspected poisoning |
| IM21.6 | Describe the medico legal aspects of suspected suicidal or homicidal poisoning and demonstrate the correct procedure to write a medico legal report on a suspected poisoning |

| | |
|---------------|---|
| Number | Unit 22 - Mineral, Fluid Electrolyte and Acid base Disorder |
| IM22.13 | Identify the underlying acid based disorder based on an ABG report and clinical situation |
| Number | Unit 23 - Nutritional and Vitamin Deficiencies |
| IM23.5 | Counsel and communicate to patients in a simulated environment with illness on an appropriate balanced diet |
| Number | Unit 24 - Geriatrics |
| IM24.2 | Perform multidimensional geriatric assessment that includes medical, psycho-social and functional components |
| Number | Unit 25 - Miscellaneous Infections |
| IM25.4 | Elicit document and present a medical history that helps delineate the aetiology of these diseases that includes the evolution and pattern of symptoms, risk factors, exposure through occupation and travel |
| IM25.5 | Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin, mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen) |
| IM25.9 | Assist in the collection of blood and other specimen cultures |
| Number | Unit 26 - The role of the physician in the community |
| IM26.19 | Demonstrate ability to work in a team of peers and superiors |
| IM26.20 | Demonstrate ability to communicate to patients in a patient, respectful, non threatening, non judgemental and empathetic manner |
| IM26.21 | Demonstrate respect to patient privacy |
| IM26.22 | Demonstrate ability to maintain confidentiality in patient care |
| IM26.23 | Demonstrate a commitment to continued learning |
| IM26.24 | Demonstrate respect in relationship with patients, fellow team members, superiors and other health careworkers |
| IM26.25 | Demonstrate responsibility and work ethics while working in the health care team |
| IM26.26 | Demonstrate ability to maintain required documentation in health care (including correct use of medicalrecords) |
| IM26.27 | Demonstrate personal grooming that is adequate and appropriate for health care responsibilities |
| IM26.28 | Demonstrate adequate knowledge and use of information technology that permits appropriate patient careand continued learning |
| IM26.29 | Communicate diagnostic and therapeutic opitons to patient and family in a simulated environment |
| IM26.30 | Communicate care opitons to patient and family with a terminal illness in a simulated environment |
| IM26.31 | Demonstrate awareness of limitations and seeks help and consultations appropriately |
| IM26.32 | Demonstrate appropriate respect to colleagues in the profession |
| IM26.33 | Demonstrate an understanding of the implications and the appropriate procedures and response to befollowed in the event of medical errors |
| IM26.34 | Identify conflicts of interest in patient care and professional relationships and describe the correct responseto these conflicts |
| IM26.35 | Demonstrate empathy in patient encounters |
| IM26.36 | Demonstrate ability to balance personal and professional priorities |
| IM26.37 | Demonstrate ability to manage time appropriately |
| IM26.38 | Demonstrate ability to form and function in appropriate professional networks |
| IM26.39 | Demonstrate ability to pursue and seek career advancement |
| IM26.40 | Demonstrate ability to follow risk management and medical error reduction practices where appropriate |
| IM26.41 | Demonstrate ability to work in a mentoring relationship with junior colleagues |
| IM26.42 | Demonstrate commitment to learning and scholarship |
| IM26.48 | Demonstrate altruism |

| | |
|---------|---|
| IM26.49 | Administer informed consent and appropriately address patient queries to a patient being enrolled in a research protocol in a simulated environment |
|---------|---|

RESPIRATORY MEDICINE (TB & RD)

| NUMBER | UNIT: TUBERCULOSIS |
|---------|--|
| CT 1.5 | Elicit, document and present an appropriate medical history that includes risk factor, contacts, symptoms including cough and fever CNS and other manifestations |
| CT 1.6 | Demonstrate and perform a systematic examination that establishes the diagnosis based on the clinical presentation that includes a) general examination, b) examination of the chest and lung including loss of volume, mediastinal shift, percussion and auscultation (including DOAP session of lung sounds and added sounds) c) examination of the lymphatic system and d) relevant CNS examination |
| CT 1.7 | Perform and interpret a PPD (mantoux) and describe and discuss the indications and pitfalls of the test |
| CT 1.10 | Perform and interpret an AFB stain |
| CT 1.11 | Assist in the performance, outline the correct tests that require to be performed and interpret the results of a pleural fluid aspiration |

| NUMBER | UNIT: COPD |
|---------|--|
| CT 2.8 | Elicit document and present a medical history that will differentiate the aetiologies of obstructive airway disease, severity and precipitants |
| CT 2.9 | Perform a systematic examination that establishes the diagnosis and severity that includes measurement of respiratory rate, level of respiratory distress, effort tolerance, breath sounds, added sounds, identification of signs of consolidation pleural effusion and pneumothorax |
| CT 2.12 | Perform and interpret peak expiratory flow rate |
| CT 2.21 | Describe discuss and counsel patients appropriately on smoking cessation |
| CT 2.22 | Demonstrate and counsel patient on the correct use of inhalers |
| CT 2.23 | Communicate diagnosis treatment plan and subsequent follow up plan to patients |
| CT 2.27 | Demonstrate an understanding of patient's inability to change working, living and environmental factors that influence progression of airway disease |
| CT 2.28 | Demonstrate an understanding for the difficulties faced by patients during smoking cessation |

Dermatology

| Number | Topic |
|--------|--|
| DR1.2 | Identify and grade the various common types of acne |
| DR2.1 | Identify and differentiate vitiligo from other causes of hypopigmented lesions |
| DR3.2 | Demonstrate the grattage test |
| DR4.1 | Identify and distinguish lichen planus lesions from other causes |
| DR5.2 | Identify and differentiate scabies from other lesions in adults and children |
| DR6.2 | Identify and differentiate pediculosis from other skin lesions in adults and children |
| DR7.2 | Identify Candida species in fungal scrapings and KOH mount |
| DR8.2 | Identify and distinguish herpes simplex and herpes labialis from other skin lesions |
| DR8.3 | Identify and distinguish herpes zoster and varicella from other skin lesions |
| DR8.4 | Identify and distinguish viral warts from other skin lesions |
| DR8.5 | Identify and distinguish molluscum contagiosum from other skin lesions |
| DR8.6 | Enumerate the indications, describe the procedure and perform a Tzanck smear |
| DR9.2 | Demonstrate (and classify based on) the clinical features of leprosy including an appropriate neurologic examination |
| DR9.3 | Enumerate the indications and observe the performance of a slit skin smear in patients with leprosy |
| DR10.1 | Identify and classify syphilis based on the presentation and clinical manifestations |
| DR10.2 | Identify spirochete in a dark ground microscopy |
| DR10.7 | Identify and differentiate based on the clinical features non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV) |
| DR11.2 | Identify and distinguish the dermatologic manifestations of HIV, its complications, opportunistic infections and adverse reactions of Therapy. |
| DR12.2 | Identify eczema and differentiate it from lichenification and changes of aging |
| DR12.5 | Define erythroderma. Enumerate and identify the causes of erythroderma. Discuss the treatment |
| DR12.6 | Identify and distinguish exfoliative dermatitis from other skin lesions |
| DR12.7 | Identify and distinguish fixed drug eruptions and Steven Johnson syndrome from other skin lesions |
| DR13.1 | Distinguish bulla from vesicles |
| DR13.2 | Demonstrate the Tzanck test, nikolsky sign and bulla spread sign |
| DR13.3 | Calculate the body surface area of involvement of vesiculobullous lesions |
| DR14.2 | Identify and distinguish urticarial from other skin lesions |
| DR14.3 | Demonstrate dermographism |
| DR14.4 | Identify and distinguish angioedema from other skin lesions |
| DR15.1 | Identify and distinguish folliculitis impetigo and carbuncle from other skin lesions |
| DR15.2 | Identify staphylococcus on a gram stain |
| DR15.4 | Enumerate the indications for surgical referral |
| DR16.1 | Identify and distinguish skin lesions of SLE |
| DR16.2 | Identify and distinguish Raynaud's phenomenon |
| DR17.1 | Enumerate and identify the cutaneous findings in vitamin A deficiency |

ASSESSMENT

General Medicine Reference:

National Medical Commission (Undergraduate Medical Education) Guidelines, 2023

Internal assessment Theory IA:

- 7 Internal assessment exams in General Medicine (one in II MBBS, one in III MBBS – Part I, Five in III MBBS –Part II; Respiratory Medicine, Psychiatry, Dermatology syllabus will be included in General medicine internal assessment).
- Formative assessment will include day to day assessment, AETCOM, AITO, Assignments, quiz and tutorials.

Practical IA:

- 4 Internal assessment exams (one in II MBBS, one in III MBBS – Part I, Two in III MBBS – Part II) will be conducted.
- Formative assessments will include day to day assessment Record book / Logbook, AETCOM.

Note: As per new guidelines under Assessment module mentioned above, Internal Assessment marks will not be added to Final Summative University Examination but will be shown as a separate head under the Subject.

| DEPARTMENT OF Medicine, Surgery, OBGY | | | | | | | | | | | | |
|--|----------|-----------------|---|---|----------------------|---|------------------------|---------------------|----------|------------------------------------|---------------------------|-------|
| Faculty : Final MBBS | | | Year/Phase- Part - II | | | Continuous Internal Assessment (Practical) | | | | | Date : dd/mm/yyyy | |
| S.No. | Roll No. | Name of Student | Formative Assessment | | | Log book (200) | | | | Journal (Record book/Portfolio) | Attendance (Practical) | Total |
| | | | 1st PCT Practical/First Ward Leaving Examination | 2nd PCT Practical /Second Ward Leaving Examination | Prelims Practical | Certifiable skill based competencies (Through OSPE/OSCE/Spots/Exercise/Other) | AETCOM competencies | SVL Lab activity | Research | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | 100 | 100 | 200 | 100 | 40 | 40 | 20 | 40 | 10 | 650 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Professor & Head Department of _____ Name of Institute _____ | | | | | | | | | | | | |

| DEPARTMENT OF Medicine, Surgery, OBGY | | | | | | | | | | | | |
|--|----------|-----------------|-----------------------------|-------------------|-------------------------------------|---------------------------------------|-----------------------------------|------------------------|-----------------|------------------------|----------------------|-------|
| Final MBBS Year-3, Part II | | | Formative Assessment Theory | | | Continuous Internal assessment Theory | | | | | | Total |
| S.No. | Roll No. | Name of Student | 1st PCT Theory | 2nd PCT Theory | Prelims Theory (Paper I & II) | Home Assignment | Continuous Class Test (LMS) | Seminar | Museum study | Library assignments | Attendance Theory | |
| | | | | | | | | Self Directed Learning | | | | |
| | | | 100 | 100 | 200 | 15 | 30 | 15 | 15 | 15 | 10 | 500 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| Professor & Head Department of _____ Name of Institute _____ | | | | | | | | | | | | |

Eligibility to appear for University Examination

| | |
|-------------------------------|---|
| Attendance Eligibility | 75% in theory and 80% in clinical postings in each subject including allied branches and in each professional year. 75% attendance in the electives. 75% attendance in Professional Development Programme (AETCOM Module) |
| Internal Assessment | Learners must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40% marks in theory and practical separately) |

University examination

Theory Examination

Theory examination consists of two papers (Paper I & II). Each Theory paper will have 100 marks

Question paper pattern -Paper-I

Theory question paper pattern for 100 marks for a duration of 3 hours

| | | |
|--|--------|------------|
| MCQ (15 Direct & 5 Case Based): | 20 X 1 | = 20 marks |
| Long Answer Question: Direct/Case Based Essay: | 2 X 15 | = 30 marks |
| Short Answer Question (SAQ): | 10 X 5 | = 50 marks |

Question paper pattern - Paper-II

Theory question paper pattern for 100 marks for a duration of 3 hours

| | | |
|---|--------|------------|
| MCQ (15 Direct & 5 Case Based): | 20 X 1 | = 20 marks |
| Section A (General Medicine) | | |
| Long Answer Question: Direct/Case Based Essay | 1 X 15 | = 15 marks |
| Short Answer Question (SAQ) | 5 X 5 | = 25 marks |
| Section B (Psychiatry, Dermatology, Venereology & Leprosy, Respiratory Medicine, AETCOM) | | |
| Long Answer Question: Direct/Case Based Essay | 1 X 15 | = 15 marks |
| Short Answer Question (SAQ) | 5 X 5 | = 25 marks |

Syllabus for Paper I & II:

General Medicine Paper I

| Unit | Topic |
|---------------------------------|---|
| Unit 1, Unit 2, Unit 8 | Cardiology |
| Unit 10 | Renal system |
| Unit 3, Unit 4, Unit 6, Unit 25 | Infectious disease and HIV miscellaneous infections |
| Unit 5, Unit 15, Unit 16 | GIT & hepatology |
| Unit 20, Unit 21, | Toxicology |
| Unit 23, Unit 14 | Nutrition & obesity |
| Unit 22 | Critical care, fluid electrolyte and acid based disorders |

General Medicine Paper II

| Unit | Topic |
|---------------------------|-----------------------------|
| Unit 17, Unit 18, Unit 19 | CNS |
| Unit 7 | Musculoskeletal |
| Unit 9 | Haematology |
| Unit 11, Unit 12 | Endocrinology & diabetes |
| Unit 13 | Oncology |
| Unit 24, Unit 26 | Geriatrics & medical ethics |

Psychiatry, Dermatology, Venereology & Leprosy, Respiratory Medicine

| | |
|---------------------|------------------------------------|
| Unit | Topic |
| Unit 1, Unit 2 (CT) | Respiratory System |
| Unit 1 -19 (PS) | Psychiatry |
| Unit 1 – 18 (DR) | Dermatology, Venereology & Leprosy |

Topics and marks distribution matrix for PAPER - I

General Medicine – 100 Per Paper (200 Marks) (20 MCQ, 2 Essay, 10 Short Notes)

| S. No | TOPICS | MCI Competency Number | No. of MCQs | Weightage in % | LAQ | SAQ |
|-------|---|---|-------------|----------------|-----|-----|
| 1. | Cardiology | IM 1.1 TO IM1.19, IM 1.16,1.17, 1.21, 1.24,1.25,1.28,1.29 IM 2.1 TO 2.5, IM 2.13 TO 2.20, 2.23, IM 8.1 TO 8.9, 8.12, 8.13, 8.14, 8.20 | 3 | 15 to 18 | ✓ | ✓ |
| 2. | Renal system | IM 10.1 TO 10.11, 10.14, 10.15,10.16,10.19,10.24,10.26 | 3 | 15 to 18 | ✓ | ✓ |
| 3. | Infectious disease and HIV, Miscellaneous Infections | IM 4.1 TO 4.8, 4.11,4.12,4.16,4.18, 4.21,4.22, IM 6.1 TO 6.9,6.11,6.12,6.13, 6.16,6.17, IM 25.1 TO 25.3, 25.6,25.7,25.8,25,10 IM 3.1 TO 3.3, 3.15 TO 3.17 | 3 | 15 to 18 | ✓ | ✓ |
| 4. | GIT & Hepatology | IM 5.1 TO 5.8, IM 5.11,5.13,5.16,5.18, IM 15.1,15.3,15.10,15.12,5.14,5.15 ,5.16, IM 16.1 TO 16.3. 16.11 TO 16.14,16.16,16.17 | 3 | 15 to 18 | ✓ | ✓ |
| 5. | Toxicology | IM 20.1,20.3,20.7,20.8, 20.9, IM 21.1 TO 21.4, 21.8 | 3 | 7 to 10 | | ✓ |
| 6. | Nutrition & Obesity | IM 23.1 TO 23.4, IM 14.1 TO 14.5, IM 14.10 ,4.13,14.14,14.15 | 2 | 6 to 9 | | ✓ |
| 7. | Critical care, fluid electrolyte and acid based disorders | IM 22.1 TO 22.12 | 3 | 6 to 9 | | ✓ |

Topics and marks distribution matrix for PAPER II

| S. No | TOPICS | MCI Competency Number | No. of MCQs | Weightage in % | LAQ | SAQ |
|-------|----------------------|---|-------------|----------------|-----|-----|
| 1 | CNS | IM 17.1,17.3,17.7,17.10 TO 17.13, IM 18.1,18.2,18.4,18.8,18.11 TO 18.15, IM 19.1 ,19.2, 19.8,19.9 | 3 | 15 to 18 | ✓ | ✓ |
| 2 | Respiratory Medicine | CT 1.1 TO 1.19, CT 2.1 TO 2.27 | 3 | 20 | ✓ | ✓ |

| | | | | | | |
|----|------------------------------------|--|---|--------|---|---|
| 3 | Psychiatry | PS 1.1 -1.4, PS 2.1 -2.5, PS 3.1 TO 3.12, 4.1 TO 4.7, PS 5.1 TO 5.5, PS 6.1 TO 6.7, PS 7.1 TO 7.7, PS 8.1 TO 8.7, PS 9.1 TO 9.7, PS 10.1 TO 10.7, PS 11.1 TO 11.7, PS 12.1 TO 12.7, PS 13.1 TO 13.7, PS 14.1 TO 14.6, PS 15.1 TO 15.4, PS 16.1 TO 16.5, PS 17.1 TO 17.3, PS 18.1 TO 18.3 , PS 19.1 TO 19.6 | 3 | 15 | ✓ | ✓ |
| 4 | Dermatology, Venereology & Leprosy | DR1.1 to 1.3, 3.1, 3.3, 4.2, 5.1, 5.3,6.1,7.1,7.3,8.1, 8.7, 9.1, 9.4, to DR9.7, 10.3,10.4, 10.6,10.8 to DR11.1, 11.3, 12.1, 12.3, 12.4, 14.1, 14.5, 15.3, 17.1 to DR18.2 | 3 | 15 | ✓ | ✓ |
| 5 | Musculoskeletal | IM 7.1 TO 7.10, 7.14 TO 7.17,7.19,7.23,7.27 | 1 | 3 to 5 | | ✓ |
| 6 | Haematology | IM 9.1, 9.2,9.7,9.8,9.11,9.12,9.14,9.17, 9.18,9.21 | 2 | 5 to 8 | | ✓ |
| 7 | Endocrinology & diabetes | IM 12.1 TO 12.4, 12.8, 12.12,12.13,12.15, IM 11.1 TO 11.6, 11.9,11.10,11.14 TO 11.18,11.22 TO 11.24 | 3 | 5 to 9 | | ✓ |
| 8 | Oncology | IM 13.1 TO 13.6, 13.12 TO 13.15,13.17 ,13.18,13.19 | 1 | 3 to 5 | | ✓ |
| 9 | Geriatrics & medical ethics | IM 24.1, 24.3 TO 24.22. IM 26.1 TO 26.8, 26.43 TO 26.47 | 1 | 3 to 5 | | ✓ |
| 10 | AETCOM | Modules 4.1A ,4.1B, 4.3 | 1 | 3 | | ✓ |

Practical Syllabus

| LONG CASE | SHORT CASE |
|---|--|
| CVA | CVA- Motor system examination |
| CVS AS,AR,MS,MR,ASD,VSD,Heart Failure | Facial Palsy |
| Pulmonology COPD, Asthma, Fibro cavity / Fibrosis, Pneumonia, Pleural effusion, Bronchiectasis | Pulmonology COPD, Asthma, Fibro cavity / Fibrosis, Pneumonia,Pleural effusion, Bronchiectasis |
| Abdomen Cirrhosis / PHT, Hepato-splenomegaly, Ascites, Hepatomegaly, Splenomegaly | Abdomen Cirrhosis / PHT, Hepato-splenomegaly, Ascites,Hepatomegaly, Splenomegaly |
| Spotters | |
| Anemia Pedal Edema Clubbing Cyanosis Psoriasis Tenia versicolor | Vitiligo Hypo / Hyperthyroidism Rheumatoid Arthritis Hansen's disease |

Distribution of Marks for Practical Examinations: Practical examination will be conducted under headings of Practical examination and Viva Voce.

| | | |
|----|------------------------|-------------|
| 1. | Practical Examination | (100marks) |
| | LONG CASE | 50 |
| | SHORT CASE (2x 25) | 50 |
| 2 | Viva –Voce Examination | (100 marks) |
| | IMAGING | 15 |

| | Maximum Marks | Passing minimum in each component | Passing Criteria (Theory & Practical) |
|-----------------------------|---------------|--|--|
| Theory (Paper I & Paper II) | 200 | 100 (50% of marks in aggregate both papers together) | 200 [Mandatory 50% marks in theory and practical separately (practical = practical/ clinical + viva) [theory = theory paper(s) only] |
| Practical's + viva | 200 (100+100) | 100 (Minimum 50 % in practical / Viva) | |

There shall be no grace marks to be considered for passing in an examination.

RECOMMENDED BOOKS:

General Medicine Textbooks:

| S. No | Name of Book | Edition (Year) | Author/Editor | Publisher |
|-------|--|---------------------------------|---|-------------|
| 1. | Davidson's Principles And Practice of Medicine | 24 th Edition (2022) | Stuart H. Ralston | Elsevier |
| 2. | Harrison's principles of Internal Medicine | 21 st Edition (2022) | Jameson/ fauci / Kasper/ Hauser/ Longo Loscalzo | Mcgraw Hill |
| 3. | Kumar & Clark Clinical Medicine | 10 th Edition (2021) | Parveen Kumar, Michael Clark | Elsevier |
| 4. | Hutchinson's Clinical Methods | 25 th Edition (2022) | Michael Glynn | Elsevier |
| 5. | Macleod's Clinical Examination | 15 th Edition (2023) | J. Alastair Innes | Elsevier |
| 6. | Tuberculosis | 3 rd edition | S.K Sharma, Alladi Mohan | Jaypee |

Respiratory Medicine (TB & RD)

| S. No | Name of Book | Edition/Year | Author/Editor | Publisher |
|-------|--------------|--------------|---------------|-----------|
|-------|--------------|--------------|---------------|-----------|

| | | | | |
|----|---|-------------------------|---|--------|
| 1 | Crofton and Douglas Respiratory diseases | 5 th Edition | Anthony Seaton / Douglas Seaton / A.Gordon Leitch | Wiley |
| 2. | Tuberculosis | 3 rd edition | S.K Sharma, Alladi Mohan | Jaypee |
| 3 | Toman's Tuberculosis Case detection, Treatment and Monitoring | 2 nd Edition | Frieden | WHO |

Psychiatry

| S. No | Title | Author/Editor | Publisher | Edition/Year |
|-------|--|----------------------------------|----------------------------------|---------------------------------|
| 1 | Kaplan and Sadock's Synopsis of Psychiatry | Sadock | Wolters Kluwer | 12 th Edition (2021) |
| 2 | International Classification of Diseases– 11 | WHO | WHO | 2022 |
| 3 | Diagnostic and Statistical Manual of Mental Disorders-5-TR | American Psychiatric Association | American Psychiatric Association | 5 th Edition (2022) |
| 4 | Short textbook of Ahuja | Neeraj Ahuja | Jaypee | 7 th Edition |

Dermatology, Venereology & Leprosy

| S. No | Name of Book | Author(s) | Edition/Year | Publisher |
|-------|--|------------------------------|---------------------------------|---------------------------|
| 1 | Roxburg Text Book of Dermatology | RonaldMark s, Richard Motley | 19 th edition (2022) | Caroline Makpeace, Jaypee |
| 2 | IADVL Concise Textbook Of Dermatology | Vishalakshi Viswanath | 2 nd Edition (2022) | Jaypee |
| 3 | Andrews' Diseases of the Skin, International Edition: Clinical Dermatology | WilliamJames | 13 th Edition (2019) | Elsevier |
| 4 | Thappa Textbook of Dermatology | Devinder Mohan Thappa | 4 th Edition | Elsevier |

SRI VENKATESWARA INSTITUTE OF MEDICAL SCIENCES, TIRUPATI
SRI PADMAVATHI MEDICAL COLLEGE FOR WOMEN
3rd MBBS PART II – PRE FINAL EXAMINATION

Paper: General Medicine Paper -1

Dt:

Time: 3 hours

Maximum Marks:100

Instructions to the students: All questions are compulsory

| I | Multiple choice questions: | 20 x 1= 20M |
|-----|--|-------------|
| 1. | Barret's esophagus is commonly associated with one of the following a) Adenocarcinoma b) Squamous cell carcinoma c) Sarcoma d) Gastrointestinal stromal tumor | () |
| 2. | D-xylose test is not done in which of the following a)Pancreatic insufficiency b) Malabsorption c) Small intestinal mucoid disease d) Impaired carbohydrate absorption in small intestine | () |
| 3. | Toxic megacolon is most commonly associated with a) Ulcerative colitis b) Crohn's disease c) Whipple's disease d) Reiter's disease | () |
| 4. | Which of the following is not an indication for renal replacement therapy a) K ⁺ : >6 mmol/L b) Fluid overload c) Sr.Creatinine: >7 mg% d) Urine output > 600ml/ 24 hours | () |
| 5. | Chyluria is associated with passage of urine which is a) White b) Dark yellow c) Straw coloured d) Brown | () |
| 6. | All are true of nephrotic syndrome except a) RBC casts in urine b) Hypoproteinemia c) Oedema d) Hyperlipidemia | () |
| 7. | Increased IgA deposits are seen in a) Chronic pyelonephritis b) Minimal charge disease c) FSGS d) Henoch schonlein purpura | () |
| 8. | P wave in ECG is due to a) Atrial depolarization b) Atrial repolarization c) Ventricular depolarization d) Ventricular repolarization | () |
| 9. | The murmur of HOCM is decreased in which of the following a) Supine position b) Standing c) Volvular moment d) Amyl nitrate inhalation | () |
| 10. | All of the following are used for hypertensive emergencies except a) Fenoldopam b) Nitroglycerine c) Nitroprusside d) Clonidine | () |

11. Which of the following hepatitis virus cause gastrointestinal infection ()
a) Hepatitis B b) Hepatitis C c) Hepatitis D d) Hepatitis E
12. Diagnostic criteria for bulimia nervosa are all except ()
a) Recurrent bouts of binge eating b) Self-induced vomiting
c) Amenorrhoea for atleast 3 months d) Weight within normal limits
13. Which of the following causes normal anion gap metabolic acidosis ()
a) Salicylate poisoning b) Ketoacidosis
c) Methanol poisoning d) Diarrhoea
14. Activated charcoal is indicated in which poisoning ()
a) Iron b) Lithium
c) Mercury d) Aspirin
15. All of the following are cholinergic features of OPC poisoning except ()
a) Bronchorrhoea b) Seizures
c) Constipation d) Miosis
16. Biochemical assessment of vitamin A deficiency ()
a) Serum Retinol b) Serum retinyl esters
c) Serum tocopherol d) coagulation assays
17. All of the following are side effects of anti-tuberculosis treatment ()
a) Hepato toxicity b) Peripheral neuropathy
c) Achilles tendon rupture d) GI toxicity
18. Factors associated with high mortality from critical illness are all except ()
a) Young age b) Severe comorbidities
c) Poor nutritional status d) Multiple organ failure
19. All of the following infections are transmitted through skin except ()
a) Schistosomiasis b) Dracunculosis
c) Ankylostoma d) Ascaries
20. All of the following are causes of infectious gastroenteritis of <6 hours incubation except ()
a) Bacillus cerans b) Salmonella
c) Staph.aureus d) Clostridium enterotoxin

II Long answer questions**2 x 15= 30 M**

1. Enumerate various causes of viral hepatitis. Discuss lab diagnosis and management of acute hepatitis B
2. A 35 year old female known case of rheumatic heart disease presented to OPD with high grade fever of 1 week, rash over palms and soles. On 2D Echo new regurgitant lesion was noted. What is the diagnosis? Describe the diagnostic criteria, investigations and treatment of this condition.

III Short answer questions**10 x 5 = 50M**

1. Anaphylactic shock
2. Liver function tests
3. Hyponatremia
4. Paracetamol poisoning
5. Vitamin D deficiency
6. Immune reconstitution inflammatory syndrome
7. Complicated malaria
8. IgA nephropathy
9. Tropical sprue
10. Classification of pulmonary artery hypertension

SRI VENKATESWARA INSTITUTE OF MEDICAL SCIENCES, TIRUPATI
SRI PADMAVATHI MEDICAL COLLEGE FOR WOMEN
3rd MBBS PART II – PRE FINAL EXAMINATION

Paper: General Medicine Paper -2

Dt:

Time: 3 hours

Maximum Marks:100

Instructions to the students: All questions are compulsory

| I | Multiple choice questions: | 20 x 1= 20M |
|-----|---|-------------|
| 1. | Lambda-panda sign is typically seen in a) Sarcoidosis b) Tuberculosis c) Histoplasmosis d) Leishmoniasis | () |
| 2. | Treatment of neurogenic diabetes insipidus is a) Desmopressin b) Vasopressin c) Terlipressin d) Amiodarone | () |
| 3. | Hurthle cells are seen in a) Agranulomatous thyroiditis b) Hashimoto's thyroiditis c) Papillary carcinoma of the thyroid d) Thyrogland cyst | () |
| 4. | Epworth scale is used for assessing a) BMI b) Vital capacity of lung c) Sleep apnea d) Risk of pulmonary embolism | () |
| 5. | Hypoglycemia is caused by all of the following except a) Uremia b) Acromegaly c) Addison's disease d) Hepatocellular failure | () |
| 6. | Which of the following causes type 2 respiratory failure a) Pneumonia b) COPD c) Penumothorax d) ARDS | () |
| 7. | Which of the following causes exudative pleural effusion a) Cirrhosis b) Nephrotic syndrome c) Congestive heart failure d) Bronchogenic carcinoma | () |
| 8. | Which of the following vitamin is synthesized in skin? a) Vit.A b) Vit.E c) Vit.D d) Vit.K | () |
| 9. | Complications of Obesity are all except a) Metabolic syndrome b) Varicose veins c) Increased ventilation d) Stroke | () |
| 10. | All of the following will increase the core body temperature except a) Heat exhaustion b) Malaria c) Drug overdose d) Trench foot | () |

11. Hair on end appearance is seen in X-rays skull in ()
 a) Hydrocephalus b) Thalassemia
 c) Chronic malaria d) Sickle cell anaemia
12. All of the following are emergency complications of cancer except ()
 a) Spinal cord compression b) SVC obstruction
 c) Hypercalcemia d) Weight loss
13. Most common skin malignancy is ()
 a) Basal cell carcinoma b) Squamous cell carcinoma
 c) Actinic keratosis d) Intra-epidermal carcinoma
14. Which of the following sexually transmitted infection caused by virus ()
 a) Lymphogranuloma venereum b) Granuloma inguinale
 c) Molluscum contagiosum d) Syphilis
15. In prescribing medicines for elderly patient, all of the following should be considered except ()
 a) Poor drug adherence b) Decreased drug elimination
 c) Less drug interactions d) Cautious in prescribing lower threshold drugs
16. Type of sensation lost on same side in Brown Sequard Syndrome is ()
 a) Pain b) Touch
 c) Proprioception d) Temperature
17. Subacute combined degeneration of spinal cord is caused due to deficiency of ()
 a) Vitamin B1 b) Vitamin B5
 c) Vitamin B6 d) Vitamin B12
18. The drug of choice for absence seizure ()
 a) Valproate b) Gabapentin
 c) Carbamazepine d) Phenytoin
19. All of the following are anxiety disorders in Psychiatry except ()
 a) Phobic anxiety b) Obsessive compulsive disorder
 c) Anorexia nervosa d) Panic disorder
20. Which of the following is a symptom of depressive disorder ()
 a) Irritability b) Reduced self-esteem
 c) Palpitations d) Tremor

II Long answer questions**2 x 15= 30 M**

1. Name anterior pituitary hormones. Discuss clinical features and treatment of Cushing's disease
2. A 68 year old woman, who had backache and recurrent chest infections for 6 months, develops renal failure. Her investigations showed Hb:7.3g/dl, Sr.Calcium:12.6mg/dl, Phosphate:2.5 mg/dl. Alkaline phosphatase:100 U/L, Sr.Albumin:2 gm/dl, globulin:7.1 g/dl, Sr.Creatinine:2.6 mg/dl. X-Ray spine showed lytic lesions in lumbar region. Sr.Electrophoresis showed M-spike.
 - a) What is the likely diagnosis?
 - b) What is the diagnostic criteria
 - c) What are the complications of this disease?
 - d) Discuss the treatment

III Short answer questions**10 x 5 = 50M**

1. Write in brief about medico-legal issue pertaining to organ donation
2. Superior vena cava obstruction
3. Pulmonary function tests
4. Frailty
5. Turner's syndrome
6. Management of megaloblastic anaemia
7. Diagnosis of rheumatoid arthritis
8. Narcolepsy
9. CSF analysis in meningitis
10. Management of acne vulgaris

Department of General Surgery

Name of the program: COMPETENCY BASED UNDERGRADUATE CURRICULUM FOR INDIAN MEDICAL GRADUATE

Name of the subject: General Surgery (SU)

Paper I Course code: GES003

Paper II Course code: GES004

Practical's Course code: GES205

Orthopedics – **OR**

Anesthesiology – **AS**

Dentistry – **DE**

Radiodiagnosis - **RD**

Radiotherapy – **RTGOAL**

General Surgery

The broad goal of the teaching of undergraduate students in Surgery is to produce graduates capable of delivering efficient first contact surgical care. The student should be able to develop the clinical skills, professional attitudes and knowledge base for the practice of general surgery through exposure to general surgical disorders. The student must appreciate the medical management and basic foundations underlying the care of surgical patients.

COMPETENCIES

General surgery

The student must demonstrate:

- Understanding of the structural and functional basis, principles of diagnosis and management of common surgical problems in adults and children.
- Ability to choose, calculate and administer appropriately intravenous fluids, electrolytes, blood and blood products based on the clinical condition.
- Ability to apply the principles of asepsis, sterilization, disinfection, rational use of prophylaxis, therapeutic utilities of antibiotics and universal precautions in surgical practice.
- Knowledge of common malignancies in India and their prevention, early detection and therapy.
- Ability to perform common diagnostic and surgical procedures at the primary care level,
- Ability to recognize, resuscitate, stabilize and provide Basic & Advanced Life Support to patients following trauma,
- Ability to administer informed consent and counsel patient prior to surgical procedures.
- Commitment to advancement of quality and patient safety in surgical practice.

Orthopedics (including Trauma)

The student must demonstrate:

- Ability to recognize and assess bone injuries, dislocation and poly-trauma and provide first contact care prior to appropriate referral.
- Knowledge of the medico-legal aspects of trauma.
- Ability to recognize and manage common infections of bone and joints in the primary care setting.
- Ability to recognize common congenital, metabolic, neoplastic, degenerative and inflammatory bone diseases and refer appropriately.
- Ability to perform simple orthopedic techniques as applicable to a primary care setting.
- Ability to recommend rehabilitative services for common orthopedic problems across all ages.

OBJECTIVES

General Surgery

Knowledge:

At the end of the course, the student should be able to:

- Describe aetiology, pathophysiology, principles of diagnosis and management of common surgical problems including emergencies, in adults and children.
- Define indications and methods for fluid and electrolyte replacement therapy including blood transfusion.
- Define asepsis, disinfection and sterilization and recommend judicious use of antibiotics.
- Describe common malignancies in the country and their management including prevention.
- Enumerate different types of anesthetic agents, their indications mode of administration.
- Contraindications and side effects.

Skills

At the end of the course, the student should be able to:

- Perform clinical examination for various surgical conditions.
- Diagnose common surgical conditions both acute and chronic, in adult and children.
- Plan various laboratory tests for surgical conditions and interpret the results:
- Identify and manage patients of hemorrhagic, septicemia and other types of shock.
- Be able to maintain patient air-way and resuscitate; a critically injured patient.
- Monitor patients of head, chest, spinal and abdominal injuries, both in adults and children.
- Provide primary care for a patient of burns.
- Acquire principles of operative surgery, including pre-operative, operative and post operative care and monitoring.
- Treat open wounds including preventive measures against tetanus and gas gangrene.
- Diagnose neonatal and pediatric surgical emergencies and provide sound primary care before referring the patient to secondary/tertiary center
- Identify congenital anomalies and refer them for appropriate management.

In addition to the skills referred above in items, he shall have observed/assisted/performed the Following:

- Incision and drainage of abscess in a simulated environment:
- Suturing in a simulated environment
- Observe blood transfusion in a simulated environment
- Demonstrate techniques of asepsis in a simulated environment
- Observe common surgical procedures emergency & life-saving procedures.

Attitude and communication

- Communication with empathy to patients & patient's attenders
- To counsel & obtain informed consent from patient & patients attenders

Integration

The undergraduate teaching in surgery shall be aligned and integrated horizontally and vertically in order to provide a sound biologic basis and a holistic approach to the care of the surgical patient.

Orthopedics

Knowledge

At the end of the course, the student should be able to:

- Acquire a broad - based knowledge of injuries and disorders affecting the musculoskeletal system and its relevance in the overall treatment and rehabilitation programme.
- Recognize fractures, dislocations, injuries to ligaments, muscles and peripheral nerves.
- Recognize life threatening and limb threatening injuries and plan their primary management.
- Identify congenital anomalies involving the musculoskeletal system their genetic background, prognosis and broad principles of management.
- Evolve a clear understanding of the nature of infections involving bone and joints - to appreciate the importance of their early recognition and treatment.
- Recognize metabolic bone disease and endocrinological anomalies as it applies to the musculoskeletal system.
- Recognize the nature, principles of investigations and management of degenerative diseases

and rheumatologic conditions. Broad principles of rehabilitation and reconstructive surgery shall be introduced during the lectures.

- Recognize neoplasms involving the musculo-skeletal system, their behavior, prognosis and current methods or treatment.
- Develop a sound understanding of widely prevalent conditions in the community such as tuberculosis, poliomyelitis and leprosy and their impact in orthopedic practice.
- Develop understanding of the imaging modalities available today; their indications, advantages and disadvantages.

Skills:

At the end of the course, the student should be able to:

- Perform correct application of bandages.
- Perform application of different types of splints for fractures, sprains and other painful affections.
- Perform application of plaster casts and slabs.
- Perform aseptic and non - touch techniques of dressing of wounds.
- Perform application of skin traction.
- Provide proper Care of an acutely injured patient, resuscitation methods and first - aid measures.

Attitude and communication

- Communication with empathy to patients & patient's attenders.
- To counsel & obtain informed consent from patient & patients attenders.

Integration

The teaching should be aligned and integrated horizontally and vertically in order to allow the student to understand the structural basis of orthopedic problems, their management and correlation with function, rehabilitation and quality of life.

Anesthesiology

Knowledge:

At the end of the course, the student should be able to:

- Describe the evolution of Anesthesiology as a modern specialty.
- Describe the roles of Anesthesiologist in the medical profession.
- Understand the stepwise algorithm approach of BLS and ACLS.
- Describe the principles of preoperative evaluation.
- Observe and describe the principles and the practical aspects of induction and maintenance of anesthesia.
- Describe and discuss the pharmacology of drugs used in induction and maintenance of general anesthesia.
- Describe the principles of fluid therapy in the preoperative period.
- Describe the principles of monitoring and resuscitation in the recovery room.
- Enumerate and describe the criteria for admission and discharge of a patient to an ICU.
- Describe principles of providing post-operative pain relief and management of chronic pain.

Skills

At the end of the course, the student should be able to:

- Observe Pre-anesthetic checkup and prescribe pre-anesthetic medications.
- Demonstrate Venipuncture and set up intravenous drip in a simulated environment.
- Observe Laryngoscopy and endotracheal intubation.
- Observe Lumbar puncture, spinal anesthesia and simple nerve blocks.
- Demonstrate Simple general anesthetic procedures under supervision in a simulated environment.
- Observe monitoring of patients during anesthesia and in the post-operative period.
- Observe maintenance of anesthetic records.
- Observe cardio-pulmonary resuscitation including recognition of cardiac arrest.
- Demonstrate Counseling and advice regarding various methods of anesthesia in a simulated environment.
- Observe Anesthesia for major and minor surgical and other procedures.

Attitude and communication

- Communication with empathy to patients & patient’s attenders.
- To counsel & obtain informed consent from patient & patients attenders.

Integration:

The undergraduate teaching in Anesthesia shall be aligned and integrated horizontally and vertically inorder to provide a sound biologic basis and a holistic approach to the care of the surgical patient.

SYLLABUS

Reference:

Medical Council of India, Competency Based Undergraduate Curriculum for the Indian Medical Graduate, 2018. Volume 3 ; General Surgery Pg 41-55 , OrthopedicsPg130-137 ; AnaesthesiaPg145-151 ; Dentistry Pg 163-164; Radio Therapy Pg 160-161;Radio Diagnosis Pg 154-155

| COMPETENCY NO | TOPIC | LECTURE(HRS) | SDL(HRS) | SGL(HRS) | TOTAL HOURS |
|--|--|--------------|----------|----------|-------------|
| Topic: Tumors | | | | | |
| SU9.1 | Choose appropriate biochemical, microbiological, pathological, imaging investigations and interpret the investigative data in a surgical patient | 1 | | 1 | 2 |
| SU9.2 | Biological basis for early detection of cancer and multidisciplinary approach in management of cancer | 1 | | 1 | 2 |
| SU9.3 | Communicate the results of surgical investigations and counsel the patient appropriately | | 1 | 1 | 2 |
| Topic: Pre, intra and post- operative management | | | | | |
| SU10.1 | Describe the principles of perioperative management of common surgical procedures | 1 | | 1 | 2 |
| SU10.2 | Describe the steps and obtain informed consent in a simulated environment | | 1 | 1 | 2 |
| SU10.3 | Observe common surgical procedures and assist in minor surgical procedures; Observe emergency lifesaving surgical procedures. | | 1 | 3 | 4 |
| SU10.4 | Perform basic surgical Skills such as First aid including suturing and minor surgical procedures in simulated environment | | 1 | 2 | 3 |
| Topic: Anaesthesia and pain management | | | | | |
| SU11.1 | Describe principles of Preoperative assessment. | 1 | | 1 | 2 |
| SU11.2 | Enumerate the principles of general, regional, and local Anaesthesia. | 1 | | 2 | 3 |
| SU11.3 | Demonstrate maintenance of an airway in a mannequin or equivalent | | | 2 | 2 |
| SU11.4 | Enumerate the indications and principles of day care General Surgery | | | 1 | 1 |
| SU11.5 | Describe principles of providing post-operative pain relief and management of chronic pain. | 1 | | 1 | 2 |
| SU11.6 | Describe Principles of safe General Surgery | 1 | | 1 | 2 |
| Topic: Nutrition and fluid therapy | | | | | |
| SU12.1 | Enumerate the causes and consequences of malnutrition in the surgical patient | 1 | | 1 | 2 |
| SU12.2 | Describe and discuss the methods of estimation and replacement of the fluid and electrolyte requirements in the surgical patient | 1 | | 1 | 2 |
| SU12.3 | Discuss the nutritional requirements of surgical patients, the methods of providing nutritional support and their complications | 1 | | 1 | 2 |
| TOPIC : Skin and subcutaneous tissue | | | | | |
| SU18.1 | Describe the pathogenesis, clinical features and management of various cutaneous and subcutaneous infections. | 1 | | 2 | 3 |
| SU18.2 | Classify skin tumors Differentiate different skin tumors and discuss their management. | 1 | 1 | | 2 |
| SU18.3 | Describe and demonstrate the clinical examination of surgical patient including swelling and order relevant investigation for diagnosis. | 1 | 1 | 2 | 4 |
| Topic: Developmental anomalies of face, mouth and jaws | | | | | |
| SU19.1 | Describe the etiology and classification of cleft lip and palate | 1 | | 1 | 2 |
| SU19.2 | Describe the Principles of reconstruction of cleft lip and palate | 1 | | 1 | 2 |
| Topic: Oropharyngeal cancer | | | | | |
| SU20.1 | Describe etiopathogenesis of oral cancer symptoms and signs of oropharyngeal cancer. | 1 | | 1 | 2 |
| SU20.2 | Enumerate the appropriate investigations and discuss the Principles of treatment. | 1 | | 1 | 2 |

| | | | | | |
|--|---|---|---|---|---|
| Topic: Disorders of salivary glands | | | | | |
| SU21.1 | Describe surgical anatomy of the salivary glands, pathology, and clinical presentation of disorders of salivary glands | | 1 | 1 | 2 |
| SU21.2 | Enumerate the appropriate investigations and describe the Principles of treatment of disorders of salivary glands | 1 | | 1 | 2 |
| Topic: Endocrine General Surgery: Thyroid and parathyroid | | | | | |
| SU22.1 | Describe the applied anatomy and physiology of thyroid | | 1 | 2 | 3 |
| SU22.2 | Describe the etiopathogenesis of thyroidal swellings | 1 | | 1 | 2 |
| SU22.3 | Demonstrate and document the correct clinical examination of thyroid swellings and discus the differential diagnosis and their management | 1 | | 1 | 2 |
| SU22.4 | Describe the clinical features, classification and principles of management of thyroid cancer | 1 | | 1 | 2 |
| SU22.5 | Describe the applied anatomy of parathyroid | | | 1 | 1 |
| SU22.6 | Describe and discuss the clinical features of hypo - and hyperparathyroidism and the principles of their management | 1 | | 1 | 2 |
| TOPIC : Adrenal gland | | | | | |
| SU23.1 | Describe the applied anatomy of adrenal glands | | 1 | 1 | 2 |
| SU23.2 | Describe the etiology, clinical features and principles of management of disorders of adrenal gland | 1 | | 1 | 2 |
| SU23.3 | Describe the clinical features, principles of investigation and management of Adrenal tumors | 1 | | 1 | 2 |
| Topic : vascular disease | | | | | |
| SU27.1 | Describe the etiopathogenesis, clinical features, investigations and principles of treatment of occlusive arterial disease. | 1 | | 1 | 2 |
| SU27.2 | Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of vascular disease | 1 | | 2 | 3 |
| SU27.3 | Describe clinical features, investigations and principles of management of vasospastic disorders | 1 | | 1 | 2 |
| SU27.4 | Describe the types of gangrene and principles of amputation | 1 | | 1 | 2 |
| SU27.5 | Describe the applied anatomy of venous system of lower limb | | | 1 | 1 |
| SU27.6 | Describe pathophysiology, clinical features, Investigations and principles of management of DVT and Varicose veins | 1 | | 1 | 2 |
| SU27.7 | Describe pathophysiology, clinical features, investigations and principles of management of Lymph edema, lymphangitis and Lymphomas | 1 | | 1 | 2 |
| SU27.8 | Demonstrate the correct examination of the lymphatic system | | 1 | 1 | 2 |

LECTURES = 30 HRS

SDL = 10 HRS

SGL = 50 HRS

TOTAL = 90 HRS

RECOMMENDED BOOKS:

Textbooks: General Surgery

| S. No | Name of Book | Author(s) | Edition | Publishers |
|-------|---|--|-------------------------|------------------------------------|
| 1 | Bailey & Love’s Short Practice of Surgery | Norman Williams, P Ronan O'Connell, Andrew McCaskie | 28th Edition | CRC Press |
| 2 | Manipal Manual of Surgery | K.R Shenoy | 4th edition | CBS Publishers & Distributors |
| 3 | SRB's Manual of Surgery | SriramBhat Paperback Bunko | 7th edition | Jaypee Brothers Medical Publishers |
| 4 | Manual On Clinical Surgery | Das S | 16th edition | Author Self |
| 5 | Hamilton Bailey's Physical Signs: Demonstrations of Physical Signs in Clinical Surgery, | John S.P Lumley, Anil K. D'Cruz , Jamal J. Hoballah, Carol E.H. Scott-Connor | 19th Edition | CRC Press |
| 6 | Browse’s – introduction to the symptoms and signs of surgical disease | Kevin.G.Burnand | 5 th edition | CRC Press |

Department of OBG

Curriculum

a. Competencies

The student must demonstrate ability to:

- Provide peri-conceptual counseling and antenatal care,
- Identify high-risk pregnancies and refer appropriately,
- Conduct normal deliveries, using safe delivery practices in the primary and secondary care settings,
- Prescribe drugs safely and appropriately in pregnancy and lactation,
- Diagnose complications of labor, institute primary care and refer in a timely manner.
- Perform early neonatal resuscitation,
- Provide postnatal care, including education in breast-feeding,
- Counsel and support couples in the correct choice of contraceptives.
- Interpret test results of laboratory and radiological investigations as they apply to the care of the obstetric patient,
- Apply medico-legal principles as they apply to
- tubectomy, Medical Termination of Pregnancy (MTP), Pre-conception and Prenatal Diagnostic Techniques (PC PNDT Act) and other related Acts.
- Elicit a gynecologic history, perform appropriate physical and pelvic examinations and PAP smear in the primary care setting.
- Recognize, diagnose and manage common reproductive tract infections in the primary care setting,
- Recognize and diagnose common genital cancers and refer them appropriately.

b. Broad subject specific objectives

Knowledge

At the end of the course, the student shall be able to:

- Outline the anatomy, physiology and pathophysiology of the reproductive system and the common conditions affecting it.
- Diagnose normal pregnancy, labor, puerperium and manage the problems he is likely to encounter therein.
- List of leading causes of maternal and perinatal morbidity and mortality.
- Understand the principles of contraception and various techniques employed, methods of medical termination of pregnancy, sterilization and their complications.
- Identify the use, abuse and side effects of drugs in pregnancy, peri- menopausal and post-menopausal periods.
- Describe the national programme of maternal and child health and family welfare and their implementation at various levels.
- Identify common gynecological diseases and describe principles of their management.
- State the indications, techniques and complications of surgeries like Caesarean section, laparotomy, abdominal and vaginal hysterectomy, Fothergill's operation and vacuum Aspiration for Medical Termination of pregnancy (MTP) and minor surgeries like EB, D and C, Cervical Biopsy and Cervical encircage

c. Skills

At the end of the course, the student should be able to

- Take proper history and writing a good case sheet
- Writing a good discharge summary, proper referral letter
- Examination of patient and arrival at a diagnosis
- Planning for investigation and treatment
- Community orientation, participation in community health promoting and preventing programmes
- Examine a pregnant woman, recognize high- risk pregnancies and make appropriate referrals.
- Conduct a normal delivery, plot and interpret partogram
- Recognize complications and decision of referral, provide postnatal care,
- Resuscitate the newborn and recognize the congenital anomalies.
- Advise a couple on the use of various available contraceptive devices (student should see at least 5 Cu-T insertions and 5 cases of female sterilization operations.)
- Perform pelvic examination, diagnose and manage common. Gynecological problems including early detection of genital malignancies.
- Make a vaginal cytological smear, perform a post coital test and wet vaginal smear examination for Trichomonas vaginal is, Monilias is and gram stain for gonorrhea, catheterization of urinary bladder
- Interpretation of data of investigations like biochemical, histopathological, radiological ultrasound etc.

d. Integration

- The teaching should be aligned and integrated horizontally and vertically in order to provide comprehensive care for women in their reproductive years and beyond, based on a sound knowledge of structure, functions and disease and their clinical, social, emotional, psychological correlates in the context of national health priorities.
- The student shall be able to integrate clinical skills with other disciplines and bring about coordination of family welfare programme for the national goal of population control.

2. Course content teaching hours

a. Teaching hours (Teaching learning methods)

| Sl No | Topic | Number of competencies | Lecture | SGD/ Tutorial | DOAP | SDL |
|-------|--|------------------------|---------|---------------|------|-----|
| 1 | Demographic and Vital Statistics | 3 | 4 | 0 | 0 | 0 |
| 2 | Anatomy of the female reproductive tract | 2 | 3 | 0 | 0 | 0 |
| 3 | Physiology of conception | 1 | 2 | 0 | 0 | 0 |
| 4 | Development of the fetus and the placenta | 1 | 1 | 0 | 0 | 0 |
| 5 | Preconception counselling | 2 | 1 | 1 | 0 | 0 |
| 6 | Diagnosis of pregnancy | 1 | 1 | 1 | 0 | 0 |

| | | | | | | |
|----|--|----|----|----|----|---|
| 7 | Maternal Changes in pregnancy | 1 | 1 | 0 | 0 | 0 |
| 8 | Antenatal Care | 8 | 5 | 1 | 1 | 1 |
| 9 | Complications in early pregnancy | 5 | 3 | 2 | 0 | 0 |
| 10 | Antepartum haemorrhage | 2 | 3 | 2 | 0 | 0 |
| 11 | Multiple pregnancies | 1 | 1 | 1 | 0 | 0 |
| 12 | Medical Disorders in pregnancy | 8 | 10 | 7 | 0 | 0 |
| 13 | Labour | 5 | 5 | 2 | 2 | 0 |
| 14 | Abnormal Lie and Presentation; Maternal Pelvis | 4 | 4 | 3 | 1 | 1 |
| 15 | Operative obstetrics | 2 | 0 | 2 | 1 | 0 |
| 16 | Complications of the third stage of labour | 4 | 4 | 3 | 1 | 0 |
| 17 | Lactation | 3 | 3 | 3 | 0 | 0 |
| 18 | Care of the new born | 4 | 2 | 2 | 2 | 0 |
| 19 | Normal and abnormal puerperium | 4 | 2 | 2 | 2 | 0 |
| 20 | Medical termination of pregnancy | 3 | 2 | 2 | 1 | 0 |
| 21 | Contraception | 2 | 5 | 4 | 1 | 0 |
| 22 | Vaginal discharge | 2 | 2 | 2 | 0 | 0 |
| 23 | Normal and abnormal puberty | 3 | 3 | 1 | 0 | 0 |
| 24 | Abnormal uterine bleeding | 2 | 2 | 1 | 0 | 0 |
| 25 | Amenorrhea | 2 | 2 | 1 | 0 | 0 |
| 26 | Genital injuries and fistulae | 1 | 2 | 1 | 0 | 0 |
| 27 | Genital infections | 6 | 6 | 6 | 0 | 1 |
| 28 | Infertility | 5 | 5 | 5 | 0 | 0 |
| 29 | Uterine fibroids | 1 | 1 | 1 | 0 | 1 |
| 30 | PCOS and hirsutism | 2 | 2 | 2 | 0 | 1 |
| 31 | Uterine prolapse | 1 | 1 | 1 | 0 | 1 |
| 32 | Menopause | 2 | 2 | 1 | 0 | 0 |
| 33 | Benign, Pre-malignant (CIN) and Malignant Lesions of the Cervix | 4 | 4 | 2 | 1 | 1 |
| 34 | Benign and malignant diseases of the uterus and the ovaries | 5 | 8 | 3 | 0 | 1 |
| 35 | Obstetrics & Gynecological skills-I | 17 | 0 | 12 | 17 | 0 |
| 36 | Obstetrics & Gynecological skills - II | 3 | 0 | 3 | 3 | 0 |
| 37 | Obstetrics& Gynecological skills - III | 7 | 0 | 7 | 0 | 0 |

THEORY SYLLABUS

MBBS PHASE III –PART 1

| | |
|---------------|--|
| Number | Unit1-DemographicandVitalStatistics |
| OG1.1 | Defineanddiscussbirthrate,maternalmortalityandmorbidity |
| OG1.2 | Defineanddiscussperinatalmortalityandmorbidityincludingperinatal&neonatalmortalityand morbidityaudit |
| OG1.3 | Defineanddiscussstillbirthandabortion |
| Number | Unit2-Anatomyofthefemale reproductive tract(Basic anatomy andembryology) |
| OG2.1 | Describeanddiscussthe developmentand anatomy of the female reproductive tract,relationship to other pelvic organs, applied anatomy as related to Obstetrics and Gynecology. |
| OG2.2 | Define, classify and discuss the investigations and management of mullerian anomaly |
| Number | Unit3-Physiologyofconception |
| OG3.1 | Describe the physiology of ovulation, menstruation, fertilization, implantation and gametogenesis |
| Number | Unit4-Developmentof thefetusandtheplacenta |
| OG4.1 | Describeanddiscussthe basic embryology of fetus, factors influencing fetal growth and development, anatomy and physiology of placenta, and teratogenesis |
| Number | Unit5-Preconceptioncounseling |
| OG5.1 | Describe, discuss and identify pre-existing medical disorders and discuss their management and evidence-based intrapartum care |
| Number | Unit6-Diagnosis of pregnancy |
| OG6.1 | Describe, discuss and demonstrate the clinical features of pregnancy, derive and discuss its differential diagnosis, elaborate the principles underlying and interpret pregnancy tests. |
| Number | Unit7-MaternalChangesinpregnancy |
| OG7.1 | Describeanddiscussthe changes in the genital tract, cardiovascular system, respiratory, haematology, renal and gastrointestinal system in pregnancy |
| Number | Unit8-AntenatalCare |
| OG8.1 | Enumerate, describe and discuss the objectives of antenatal care, assessment of period of gestation; screening for high-risk factors |
| OG8.2 | Elicit, document and present obstetric history including menstrual history, last menstrual period, previous obstetric history, comorbid conditions, past medical history and surgical history |
| OG8.3 | Describe, demonstrate, document and perform obstetric examination including general and obstetric examination |
| OG8.4 | Describe and demonstrate clinical monitoring of maternal and fetal well-being |
| OG8.5 | Describe and demonstrate pelvic assessment in a model |
| OG8.6 | Assess and counsel a patient in a simulated environment regarding appropriate nutrition in pregnancy |
| OG8.7 | Enumerate the indications and types of vaccination in pregnancy |
| OG8.8 | Enumerate the indications and describe the investigations including the use of ultrasound in the initial assessment and monitoring in pregnancy |
| Number | Unit9–Complications in earlypregnancy |
| OG9.1 | Classify, define and discuss the aetiology and management of abortion including threatened, incomplete, inevitable, missed and septic abortion |
| OG9.3 | Discuss the aetiology, clinical features, differential diagnosis of acute abdomen in early pregnancy (with a focus on ectopic pregnancy) and enumerate the principles of medical and surgical management |
| OG9.4 | Discuss the clinical features, laboratory investigations, ultrasonography, differential diagnosis, principles of management and follow up of gestational trophoblastic neoplasms |
| OG9.5 | Describe the aetiology, impact on maternal and fetal health and principles of management of hyperemesis gravidarum |
| Number | Unit10-Antepartumhaemorrhage |
| OG10.1 | Define, classify and describe the aetiology, pathogenesis, clinical features, ultrasonography, differen |

| | |
|---------------|--|
| | tial diagnosisand managementofantepartumhaemorrhageinpregnancy |
| Number | Unit11-Multiplepregnancies |
| OG11.1 | Describetheetiopathology,clinicalfeatures;diagnosisandinvestigations,complications,principles of managementofmultiplepregnancies |
| Number | Unit12-Medical disorders in pregnancy |
| OG12.2 | Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, adverse effects onthemotherandfoetusandthemanagementduringpregnancyandlabor,andcomplicationsofanemi ainpregnancy |
| OG12.3 | Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverseeffectsonthe motherandfoetusandthemanagementduringpregnancyandlabor,andcomplications ofdiabetesinpregnancy |
| OG12.4 | Define,classifyanddescribetheetiology,pathophysiology,diagnosis,investigations,criteria,adver seeffects on the mother and foetus and management during pregnancy and labor, and complications ofheartdiseasesinpregnancy |
| OG12.5 | Describetheclinicalfeatures,detection,effectofpregnancyon thediseaseandimpactofthediseaseonpregnancycomplicationsandmanagementofurinarytractinfecti onsinpregnancy |
| OG12.6 | Describetheclinicalfeatures,detection,effectofpregnancyon thediseaseandimpactofthediseaseonpregnancycomplicationsandmanagementofliverdiseaseinpreg nancy |
| OG12.7 | Describeanddiscusscreening,riskfactors,managementofmotherandnewbornwithHIV |
| OG12.8 | Describethemechanism,prophylaxis,fetalcomplications,diagnosisandmanagementofisoimmuni zation inpregnancy |
| Number | Unit13– Labour |
| OG13.2 | Define,describethecauses,pathophysiology,diagnosis,investigationsandmanagementofpreterm abor,PROMandpostdatedpregnancy |
| Number | Unit14-AbnormalLieandPresentation;MaternalPelvis |
| OG14.1 | Enumerateanddiscussthediametersofmaternalpelvisandtypes |
| Number | Unit17-lactation |
| OG17.1 | Describeanddiscussthephysiologyoflactation |
| Number | Unit18-Careofthenewborn |
| OG18.2 | Demonstrate the steps of neonatal resuscitation in a simulated environment |
| Number | Unit19-Normal andabnormalpuerperium |
| OG19.1 | Describeanddiscussthephysiologyofpuerperium,itscomplications,diagnosisandmanagementcou nsellingforcontraception,puerperalsterilization |
| Number | Unit22-Vaginaldischarge |
| OG22.1 | Describetheclinicalcharacteristicsofphysiologicalvaginaldischarge. |
| OG22.2 | Describeanddiscusstheetiology(withspecialempphasisonCandida,Trichomonasvaginalis,bacteria lvaginosis),characteristics,clinicaldiagnosis,investigations,genitalhygiene,managementofcom mon causesandthesyndromicmanagement |
| Number | Unit23-Normal andabnormalpuberty |
| OG23.1 | Describeanddiscussthephysiologyofpuberty,featuresofabnormalpuberty,commonproblemsandt heirmanagement |
| OG23.2 | Enumeratethecausesofdelayedpuberty.Describetheinvestigationandmanagementofcommoncau ses |
| OG23.3 | Enumeratethecausesofprecociouspuberty |
| Number | Unit24-Abnormaluterinebleeding |

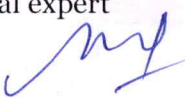
| | |
|---------------|---|
| OG24.1 | Discuss common disorders associated with menstruation like irregular cycle, HMB, intermenstrual bleeding, dysmenorrhea, PMS, ovulatory pain |
| OG24.2 | Define, classify and discuss abnormal uterine bleeding, its aetiology, clinical features, investigations, diagnosis and management |
| Number | Unit25-Amenorrhoea |
| OG25.1 | Describe and discuss the causes of primary and secondary amenorrhea, its investigation and the principles of management. |
| OG25.2 | Describe and discuss sexual development and disorders of sexual development |
| Number | Unit27-Genital infections |
| OG27.1 | Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of sexually transmitted infections |
| OG27.2 | Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of genital tuberculosis |
| OG27.3 | Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of HIV |
| OG27.4 | Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of Pelvic Inflammatory Disease |
| OG27.5 | Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management of low back ache and chronic pelvic pain |
| OG27.6 | Discuss clinical features, differential diagnosis, pathogens and management of Bartholin's abscess |
| Number | Unit32-Menopause |
| OG32.1 | Describe and discuss the physiology of menopause, symptoms, prevention, management and the role of menopausal hormone therapy. |

**SRI VENKATESWARA INSTITUTE OF MEDICAL SCIENCES
SVIMS-SRI PADMAVATHI MEDICAL COLLEGE FOR WOMEN::TIRUPATI**

**MBBS - 3rd BOARD OF STUDIES MEETING
HELD ON 24.07.2024, 25.07.2024, 30.07.2024 & 31.07.2024**

Minutes of the 3rd Board of Studies (1st MBBS, 2nd MBBS, 3rd MBBS Part-I & II) Meeting held at College Council Hall, SVIMS-SPMCW on 24.07.2024, 25.07.2024, 30.07.2024 & 31.07.2024 from 10.00 AM onwards.

Members of the Board of Studies:

| | | |
|-----|---|--|
| 1. | Dr Alladi Mohan Dean SVIMS | Chairman |
| 2. | Dr.UshaKalawat Principal, SVIMS-SPMCW | Member Secretary |
| 3. | Dr. Aparna R. Bitla Registrar, SVIMS - Virtual | Member |
| 4. | Dr. V. Vanajakshamma Controller of Examinations SVIMS | Member |
| 5. | Dr. C. Sreekanth Professor & HoD Dept. of Anatomy SVIMS-SPMCW, Tirupati | Member |
| 6. | Dr. D. Jagadeesh Babu Professor Dept. of Anatomy SVMC, Tirupati | External expert |
| 7. | Dr. M. Sharan B Singh Professor & HoD Dept. of Physiology SVIMS-SPMCW, Tirupati | Member |
| 8. | Dr. V S Bhagyalakshmi Professor & HOD Dept. of Physiology S.V. Medical College, Tirupati | External expert |
| 9. | Dr. Aparna R. Bitla Professor & HoD Dept. of Biochemistry SVIMS-SPMCW, Tirupati - Virtual | Member |
| 10. | Dr. Madhavalatha Professor & HoD Dept. of Biochemistry SVMC, Tirupati - Virtual | External expert  |
| 11. | Dr. K. Umamaheswara Rao Professor & HoD Dept. of Pharmacology SVIMS-SPMCW, Tirupati | Member |
| 12. | Dr. Ashalatha Professor & HoD, Dept of Pharmacology SVMC, Tirupati - Virtual | External expert |
| 13. | Dr. N. Rukmangadha Professor & HoD 2 nd MBBS, Coordinator Dept. of Pathology SVIMS, Tirupati | Member |
| 14. | Dr. Janaki, Professor & HoD Dept. of Pathology Shanthi Ram Medical College, Nandyal - Virtual | External expert |
| 15. | Dr. B. Venkataramana Professor & HoD Dept. of Microbiology SVIMS-SPMCW, Tirupati | Member |

| | | |
|-----|---|-----------------|
| | | |
| 16. | Dr. Animireddy Kishore Professor, Dept. of Microbiology Apollo Institute of Medical Sciences and Research Murakambattu, Chittoor - Virtual | External expert |
| 17. | Dr. K. Nagaraj Professor & HoD 3 rd MBBS Part-I, Coordinator Dept. of Community medicine SVIMS-SPMCW, Tirupati | Member |
| 18. | Dr. Pankaj B Shah Professor & Associate Dean (Research) Dept of community medicine SRMC, Chennai - Virtual | External expert |
| 19. | Dr. K. Jyothi Prasad Professor & HoD, Dept. of Forensic Medicine SVIMS-SPMCW, Tirupati | Member |
| 20. | Dr. Kilari Bhaskar Md Professor & Head Dept. of Forensic Medicine & Toxicology Government Medical College, Eluru - Virtual | External expert |
| 21. | Dr. J. Harikrishna Professor & HoD 3 rd MBBS Part-II, Coordinator Dept. of General Medicine SVIMS-SPMCW, Tirupati | Member |
| 22. | Dr. Ravi. K Professor & HoD, Dept. of Medicine Bangalore Medical College and Research Institute Fort, K. R. Road, Bangalore - Virtual | External expert |
| 23. | Dr. Y. Mutheeswaraiiah Professor & HoD Dept. of General Surgery SVIMS-SPMCW, Tirupati | Member |
| 24. | Dr. S. Nagamuneiah, MS., Professor, Dept. of General Surgery ACSR Govt., Medical College, Nellore | External expert |
| 25. | Dr.J. Malathi Professor & HoD Dept.of OBG, SVIMS-SPMCW Tirupati. | Member |
| 26. | Dr. Keshava Gangadharan Professor & HoD Dept. of OBG PES Medical College, Kuppam - Virtual | External expert |
| 27. | Dr. S. B. Amarnath Professor & HoD Dept. of ENT, SVIMS-SPMCW | Member |
| 28. | Dr. Ravi. D Professor & HoD, Dept. of ENT Mandya Institute of Medical Sciences Mandya, Karnataka - Virtual | External expert |
| 29. | Dr.Prabhanjankumar Associate Professor & HoD Dept. of Ophthalmology SVIMS-SPMCW | Member |
| 30. | Dr. V. Vijaya Lakshmi Professor & HoD, Dept. of Ophthalmology Govt. Medical College, Guntur - Virtual | External expert |
| 31. | Dr. N. Punith Patak Professor & HoD Dept. of Pediatrics, SVIMS-SPMCW | Member |
| 32. | Dr.Vinayaka.G Professor & HoD, Dept. of Paediatrics Subbaiah Institute of Medical sciences Shimoga - Virtual | External expert |
| 33. | Dr. S. M. Venugopal Associate Professor & HoD Dept. of Orthopaedics, SVIMS-SPMCW | Member |

| | | |
|-----|--|-------------------------------------|
| 34. | Dr Arun H S Professor, Dept. of Orthopaedics Sri Devaraj Urs Medical College, Tamaka, Kolar - Virtual | External expert |
| 35. | Dr. Arpana Bhide Professor, Dept. of Physiology SVIMS-SPMCW | 1 st MBBS Coordinator |

SVIMS-SPMCW has conducted the 3rd Board of Studies (1st MBBS, 2nd MBBS, 3rd MBBS Part-I & II) Meeting for approval of the Competent Based Medical Education Curriculum notified by NMC (UGMEB) vide No.U.14021/8/2023-UGMEB, dated, 01.08.2023 for implementation of the said regulations from the Academic Year 2023 onwards in SVIMS-Sri Padmavathi Medical College for Women of SVIMS University.


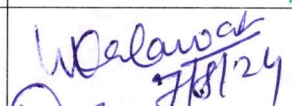

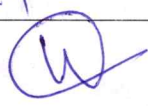

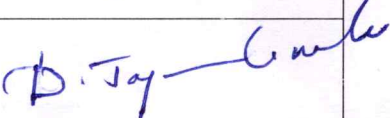
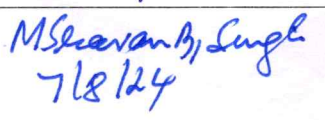
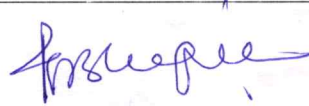

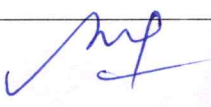
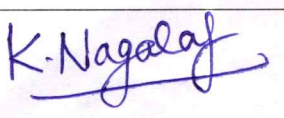
MINUTES OF THE MEETING:

1. Curriculum of respective Phases were approved separately.
2. **COMMON REGULATIONS** - The Committee approved to implement Competency Based Medical Education Curriculum for MBBS course notified by NMC (UGMEB) vide No.U.14021/8/2023-UGMEB, dated, 01.08.2023 for the batches admitted in MBBS from the Academic year 2019-20, effective from the year 2023 onwards in SVIMS-SPMCW and to follow the guidelines notified by NMC from time to time.

CBME New Regulations:

- 1 Regulations and teaching approach as per CBME of NMC (Preamble, Objectives of the Indian Graduate Medical Training Programme, National Goals, Institutional Goals, Goals for the Learner, Competency based training programme of the Indian Medical Graduate, Lifelong learner committed to continuous improvement of skills & knowledge) Approved
- 2 Phase Wise Training and Time distribution for Professional Development Approved
 - Training period, time distribution & University examinations:
 - Distribution of teaching hours phase wise
 - New teaching /learning elements
 - Foundation Course
 - Early Clinical Exposure
 - Electives
 - Professional Development including Attitude, Ethics and Communication Module (AETCOM)
 - Learner-doctor method of clinical training (Clinical Clerkship)
 - Assessment (in the phase wise Internal Assessment marks distribution (theory & practical) provided as tables, the split up of logbook marks to be adjusted as per total marks mentioned.
 - Eligibility to appear for Professional examinations
Attendance and Internal Assessment Advised to display the results of Internal Assessment on the Notice Board within one week of the Test.
 - University Examinations
 - AETCOM Question in university examination:
 - It was resolved to include at least one question in each paper (both paper I & II) of each clinical specialty in the university examination.
 - The 3rd MBBS Part-I University Examinations 2024 will be held as per 2023 New NMC Regulations, that is Two subjects (Community Medicine & Forensic Medicine)
 - Appointment of Examiner
- 3 Readmission after discontinuation of study Approved

- 4 Migration/ Transfer of candidates Approved
- 5 SUBMISSION OF LABORATORY/ CLINICAL RECORD. Approved
- 6 Log Book Approved
- 7 Malpractice Approved
- 8 Declaration of Class Approved
- 9 Award of Degree Approved
- 10 Academic calendar proposed by NMC Approved
- Table 1: Time distribution of MBBS Program and Examination Schedule – 2023-2024 batch onwards
- Table 2: Distribution of subjects in each Professional Phase
- Table 3: Foundation Course
- Table 4: Distribution of Subject Wise Teaching Hours for 1st MBBS
- Table 5: Distribution of Subject Wise Teaching Hours for II MBBS
- Table 6: Distribution of Subject Wise Teaching Hours for 3rd MBBS part 1.
- Table 7: Distribution of Subject Wise Teaching Hours for 3rd MBBS part II.
- Table 8: Clinical Posting Schedules in weeks
- Table 9: Learner- Doctor program (Clinical Clerkship)
- Table 10 : Marks distribution for various subjects for University Annual Examinations
- Phase wise marks distribution of internal assessment – Theory & Practical

| S. No. | Member | Signature |
|--------|---|---|
| 1. | Dr Alladi Mohan Dean SVIMS | Chairman  |
| 2. | Dr.UshaKalawat Principal SVIMS-SPMCW | Member Secretary  |
| 3. | Dr. Aparna R. Bitla Registrar, SVIMS | Member  |
| 4. | Dr. V. Vanajakshamma Controller of Examinations SVIMS. | Member  |
| 5. | Dr. C. Sreekanth Professor & HOD Dept. of Anatomy SVIMS-SPMCW, Tirupati | Member  |
| 6. | Dr. D. Jagadeesh Babu Professor, Dept. of Anatomy, SVMC, Tirupati. | External expert  |
| 7. | Dr. M. Sharan B Singh Professor & HOD Dept. of Physiology SVIMS-SPMCW, Tirupati | Member  |
| 8. | Dr. V S Bhagyalakshmi Professor & HOD Dept. of Physiology S.V. Medical College, Tirupati | External expert  |
| 9. | Dr. Aparna R. Bitla Professor & HOD Dept. of Biochemistry SVIMS-SPMCW, Tirupati. | Member  |
| 10. | Dr. Madhavilatha Professor & HOD Dept. of Biochemistry SVMC, Tirupati | External expert  |
| 11. | Dr. K. Nagaraj Professor & HOD Dept. of Community medicine SVIMS-SPMCW, Tirupati | Member  |

| | | | |
|-----|--|-----------------|----------------|
| 12. | Dr. Pankaj B Shah Professor & Associate Dean (Research) Dept of community medicine SRMC, Chennai - Virtual | External expert | Mail Attached |
| 13. | Dr. K. Umamaheswara Rao Professor & HoD Dept. of Pharmacology SVIMS-SPMCW, Tirupati | Member | Kuo |
| 14. | Dr. Ashalatha Professor & HOD Dept of Pharmacology SVMC, Tirupati - Virtual | External expert | M. Ashu |
| 15. | Dr. N. Rukmangadha Professor & HoD Dept. of Pathology SVIMS, Tirupati | Member | wholamangadha |
| 16. | Dr. Janaki, Professor & HoD Dept. of Pathology Shanthi Ram Medical College Nandyal - Virtual | External expert | mail Attached |
| 17. | Dr. B. Venkataramana Professor & HOD Dept. of Microbiology SVIMS-SPMCW, Tirupati | Member | bh |
| 18. | Dr. Animireddy Kishore Professor, Dept. of Microbiology Apollo Institute of Medical Sciences and Research, Murakambattu, Chittoor - Virtual | External expert | mail Attached |
| 19. | Dr. K. Jyothi Prasad Professor & HoD, Dept. of Forensic Medicine SVIMS-SPMCW, Tirupati | Member | KJ Prasad |
| 20. | Dr. Kilari Bhaskar Md Professor & Head Dept. of Forensic Medicine & Toxicology Government Medical College, Eluru - Virtual | External expert | mail Attached |
| 21. | Dr. J. Harikrishna Professor & Head Dept. of General Medicine SVIMS-SPMCW, Tirupati | Member | Harikrishna |
| 22. | Dr. Ravi. K Professor & Head, dept. of Medicine Bangalore Medical College and Research Institute Fort, K. R. Road, Bangalore - Virtual | External expert | mail Attached |
| 23. | Dr. Y. Mutheeswaraiah Professor & HoD Dept. of General Surgery SVIMS-SPMCW, Tirupati | Member | Mutheeswaraiah |
| 24. | Dr. S. Nagamuneiah, MS., Professor, Dept. of General Surgery, ACSR Govt., Medical College, Nellore | External expert | mail Attached |
| 25. | Dr.J.Malathi Professor & i/c HoD Dept.of OBG, SVIMS-SPMCW Tirupati | Member | Malathi |
| 26. | Dr. Keshava Gangadharan Professor & HOD, Dept. of OBG PES Medical College, Kuppam - Virtual | External expert | mail Attached |
| 27. | Dr.S.B.Amarnath Professor & i/c, HoD Dept. of ENT, SVIMS-SPMCW | Member | S.B. Amarnath |

| | | | |
|-----|--|--|-------------------------|
| 28. | Dr. Ravi. D Professor & Head, Dept. of ENT Mandya Institute of Medical Sciences Mandya, Karnataka | External expert | mail Attached |
| 29. | Dr. Prabhankumar Associate Professor & HoD i/c Dept. of Ophthalmology SVIMS-SPMCW | Member | P. Prabhankumar |
| 30. | Dr. V. Vijaya Lakshmi Professor & Head, Dept. of Ophthalmology Govt. Medical College, Guntur | External expert | mail Attached |
| 31. | Dr. N. Punith Patak Associate Professor & i/c HoD Dept. of Pediatrics, SVIMS-SPMCW | Member | ADP |
| 32. | Dr. Vinayaka.G Professor & HOD Dept. of pediatrics Subbaiah Institute of Medical sciences, Shimoga | External expert | mail Attached |
| 33. | Dr. Venugopal Associate Professor Dept. of Orthopaedics SVIMS-SPMCW | Member | Venugopal |
| 34. | Dr Arun H S Professor Dept. of Orthopaedics Sri Devaraj Urs Medical College, Tamaka, Kolar | External expert | mail Attached |
| 35. | Dr. Arpana Bhide Professor Dept. of Physiology SVIMS-SPMCW | 1 st MBBS Co-coordinator | Arpana Bhide 21/8/24 |
| 36. | Dr. N. Rukmangadha Professor & HoD Dept. of Pathology SVIMS-SPMCW, Tirupati | 2 nd MBBS Coordinator | N. Rukmangadha |
| 37. | Dr. K. Nagaraj Professor & HOD Dept. of Community medicine SVIMS-SPMCW, Tirupati | Coordinator 3rd MBBS Part-I | K. Nagaraj |
| 38. | Dr. J. Harikrishna Professor Dept. of General Medicine SVIMS-SPMCW, Tirupati | 3rd MBBS Part-II Coordinator | J. Harikrishna |


Pathology

| | | | |
|-----|--|-----------------|--|
| | SVIMS-SPMCW, Tirupati | | |
| 12. | Dr. Pankaj B Shah Professor & Associate Dean (Research) Dept of community medicine SRMC, Chennai - Virtual | External expert | |
| 13. | Dr. K. Umamaheswara Rao Professor & HoD Dept. of Pharmacology SVIMS-SPMCW, Tirupati | Member | |
| 14. | Dr. Ashalatha Professor & HoD Dept of Pharmacology SVMC, Tirupati - Virtual | External expert | |
| 15. | Dr. N. Rukmangadha Professor & HoD Dept. of Pathology SVIMS, Tirupati | Member | |
| 16. | Dr. Janaki Professor & HoD Dept. of Pathology Shanthi Ram Medical College Nandyal - Virtual | External expert | |
| 17. | Dr. B. Venkataramana Professor & HoD Dept. of Microbiology SVIMS-SPMCW, Tirupati | Member | |
| 18. | Dr. Animireddy Kishore Professor, Dept. of Microbiology Apollo Institute of Medical Sciences and Research, Murakambattu, Chittoor - Virtual | External expert | |
| 19. | Dr. K. Jyothi Prasad Professor & HoD, Dept. of Forensic Medicine SVIMS-SPMCW, Tirupati | Member | |
| 20. | Dr. Kilari Bhaskar Md Professor & Head Dept. of Forensic Medicine & Toxicology Government Medical College, Eluru - Virtual | External expert | |
| 21. | Dr. J. Harikrishna Professor & HoD Dept. of General Medicine SVIMS-SPMCW, Tirupati | Member | |
| 22. | Dr. Ravi K Professor & Head, dept. of Medicine Bangalore Medical College and Research Institute Fort, K. R. Road, Bangalore - Virtual | External expert | |
| 23. | Dr. Y. Mutheswaraiiah Professor & HoD Dept. of General Surgery SVIMS-SPMCW, Tirupati | Member | |
| 24. | Dr. S. Nagamuneiah, MS, Professor, Dept. of General Surgery, ACSR Govt., Medical College, Nellore | External expert | |
| 25. | Dr. J. Malathi Professor & HoD Dept. of OBG, SVIMS-SPMCW Tirupati | Member | |
| 26. | Dr. Keshava Ganeshwararaj | | |

**SRI VENKATESWARA INSTITUTE OF MEDICAL SCIENCES
SVIMS- SRI PADMAVATHI MEDICAL COLLEGE FOR WOMEN::TIRUPATI**

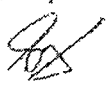
Minutes of the 3rd Board of Studies (2nd MBBS) Meeting held at College Council Hall,
SVIMS-SPMCW on 25.07.2024 from 10 AM onwards.

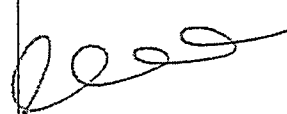
Members of the Board of Studies:-

| | | |
|----|--|---|
| 1 | Dr Alladi Mohan Dean SVIMS | Chairman |
| 2 | Dr.UshaKalawat Principal SVIMS-SPMCW | Member Secretary |
| 3 | Dr Aparna R Bitla Registrar, SVIMS - Virtual | Member |
| 4 | Dr V. Vanajakshamma, Controller of Examinations SVIMS | Member |
| 5 | Dr. N. Rukmangadha Professor & HoD 2 nd MBBS Coordinator Dept. of Pathology SVIMS-SPMCW, Tirupati | Member |
| 6 | Dr. Janaki, Professor & HoD, Dept. of Pathology Shanthi Ram Medical College, Nandyal - Virtual | External expert |
| 7 | Dr. K. Umamaheswara Rao Professor & HoD Dept. of Pharmacology SVIMS-SPMCW, Tirupati | Member |
| 8 | Dr. Ashalatha Professor & HoD, Dept of Pharmacology SVMC, Tirupati - Virtual | External expert |
| 9 | Dr. B. Venkataramana Professor & HoD Dept. of Microbiology SVIMS-SPMCW, Tirupati | Member |
| 10 | Dr. Animireddy Kishore Professor, Dept. of Microbiology Apollo Institute of Medical Sciences and Research, Murakambattu, Chittoor - Virtual | External expert  |

SVIMS-SPMCW has conducted the 3rd Board of Studies (2nd MBBS) Meeting for approval of the Competent Based Medical Education Curriculum notified by NMC (UGMEB) vide No.U.14021/8/2023-UGMEB, dated, 01.08.2023 for implementation of the said regulations from the Academic Year 2023 onwards in SVIMS-Sri Padmavathi Medical College for Women of SVIMS University.

Community Medicine
Dr. Pankaj

| | | |
|-----|---|--|
| 15. | Dr. Animireddy Kishore Professor, Dept. of Microbiology Apollo Institute of Medical Sciences and Research Murakambattu, Chittoor - Virtual | External expert |
| 17. | Dr. K. Nagaraj Professor & HoD 3 rd MBBS Part-1, Coordinator Dept. of Community medicine SVIMS-SPMCW, Tirupati | Member |
| 18. | Dr. Pankaj B Shah Professor & Associate Dean (Research) Dept of community medicine SRMC, Chennai - Virtual | External expert  |
| 19. | Dr. K. Jyothi Prasad Professor & HoD, Dept. of Forensic Medicine SVIMS-SPMCW, Tirupati | Member |
| 20. | Dr. Kilari Bhaskar Md Professor & Head Dept. of Forensic Medicine & Toxicology Government Medical College, Eluru - Virtual | External expert |
| 21. | Dr. J. Harikrishna Professor & HoD 3 rd MBBS Part-II, Coordinator Dept. of General Medicine SVIMS-SPMCW, Tirupati | Member |
| 22. | Dr. Ravi. K Professor & HoD, Dept. of Medicine Bangalore Medical College and Research Institute Fort, K. R. Road, Bangalore - Virtual | External expert |
| 23. | Dr. Y. Mutheeswaraiah Professor & HoD Dept. of General Surgery SVIMS-SPMCW, Tirupati | Member |
| 24. | Dr. S. Nagamuneiah, MS., Professor, Dept. of General Surgery ACSR Govt., Medical College, Nellore | External expert |
| 25. | Dr. J. Malathi Professor & HoD Dept. of OBG, SVIMS-SPMCW Tirupati. | Member |
| 26. | Dr. Keshava Gangadharan Professor & HoD Dept. of OBG PES Medical College, Kuppam - Virtual | External expert |
| 27. | Dr. S. B. Amarnath Professor & HoD Dept. of ENT, SVIMS-SPMCW | Member |
| 28. | Dr. Ravi. D Professor & HoD, Dept. of ENT Mandya Institute of Medical Sciences Mandya, Karnataka - Virtual | External expert |
| 29. | Dr. Prabhanjankumar Associate Professor & HoD Dept. of Ophthalmology SVIMS-SPMCW | Member |
| 30. | Dr. V. Vijaya Lakshmi Professor & HoD, Dept. of Ophthalmology Govt. Medical College, Guntur - Virtual | External expert |
| 31. | Dr. N. Punith Patak | Member |

| | | | |
|-----|--|-----------------|---|
| | Professor & Associate Dean (Research) Dept of community medicine SRMC, Chennai - Virtual | | |
| 13. | Dr. K. Umamaheswara Rao Professor & HoD Dept. of Pharmacology SVIMS-SPMCW, Tirupati | Member | |
| 14. | Dr. Ashalatha Professor & HoD Dept of Pharmacology SVMC, Tirupati - Virtual | External expert | |
| 15. | Dr. N. Rukmangadha Professor & HoD Dept. of Pathology SVIMS, Tirupati | Member | |
| 16. | Dr. Janaki, Professor & HoD Dept. of Pathology Shanthi Ram Medical College Nandyal - Virtual | External expert | |
| 17. | Dr. B. Venkataramana Professor & HoD Dept. of Microbiology SVIMS-SPMCW, Tirupati | Member | |
| 18. | Dr. Animireddy Kishore Professor, Dept. of Microbiology Apollo Institute of Medical Sciences and Research, Murakambattu, Chittoor - Virtual | External expert | |
| 19. | Dr. K. Jyothi Prasad Professor & HoD, Dept. of Forensic Medicine SVIMS-SPMCW, Tirupati | Member | |
| 20. | Dr. Kilari Bhaskar Md Professor & Head Dept. of Forensic Medicine & Toxicology Government Medical College, Eluru - Virtual | External expert |  |
| 21. | Dr. J. Harikrishna Professor & HoD Dept. of General Medicine SVIMS-SPMCW, Tirupati | Member | |
| 22. | Dr. Ravi. K Professor & Head, dept. of Medicine, Bangalore Medical College and Research Institute Fort, K. R. Road, Bangalore - Virtual | External expert | |
| 23. | Dr. Y. Mutheeswaraiiah Professor & HoD Dept. of General Surgery SVIMS-SPMCW, Tirupati | Member | |
| 24. | Dr. S. Nagamuneiah, MS., Professor, Dept. of General Surgery, ACSR Govt., Medical College, Nellore | External expert | |
| 25. | Dr. J. Malathi Professor & HoD Dept. of OBG, SVIMS-SPMCW Tirupati | Member | |
| 26. | Dr. Keshava Gangadharan Professor & HoD. | External expert | |

Medicine

| | | | |
|-----|---|---|--|
| | Professor & Associate Dean (Research) Dept of community medicine SRMC, Chennai - Virtual | | |
| 13. | Dr. K. Umamaheswara Rao Professor & HoD Dept. of Pharmacology SVIMS-SPMCW, Tirupati | Member | |
| 14. | Dr. Ashalatha Professor & HoD Dept of Pharmacology SVMC, Tirupati - Virtual | External expert | |
| 15. | Dr. N. Rukmangadha Professor & HoD Dept. of Pathology SVIMS, Tirupati | Member | |
| 16. | Dr. Janaki, Professor & HoD Dept. of Pathology Shanthi Ram Medical College Nandyal - Virtual | External expert | |
| 17. | Dr. B. Venkataramana Professor & HoD Dept. of Microbiology SVIMS-SPMCW, Tirupati | Member | |
| 18. | Dr. Animireddy Kishore Professor, Dept. of Microbiology Apollo Institute of Medical Sciences and Research, Murakambattu, Chittoor – Virtual | External expert | |
| 19. | Dr. K. Jyothi Prasad Professor & HoD, Dept. of Forensic Medicine SVIMS-SPMCW, Tirupati | Member | |
| 20. | Dr. Kilari Bhaskar Md Professor & Head Dept. of Forensic Medicine & Toxicology Government Medical College, Eluru – Virtual | External expert | |
| 21. | Dr. J. Harikrishna Professor & HoD Dept. of General Medicine SVIMS-SPMCW, Tirupati | Member | |
| 22. | Dr. Ravi. K Professor and Head , dept. of Medicine Bangalore Medical College and Research Institute Fort, K. R. Road, Bangalore – Virtual | External expert Dr. K. Ravi MBBS, MD, FICR Professor and Head - Internal Medicine Bangalore Medical College & Research Institute Bangalore - 560 007. K.M.C. Reg. No. 33/13 | |
| 23. | Dr. Y. Mutheeswaraiah Professor & HoD Dept. of General Surgery SVIMS-SPMCW, Tirupati | Member | |
| 24. | Dr. S. Nagamuneiah, MS., Professor, Dept. of General Surgery, ACSR Govt., Medical College, Nellore | External expert | |
| 25. | Dr.J.Malathi Professor & HoD Dept.of OBG, SVIMS-SPMCW Tirupati | Member | |
| 26. | Dr. Keshava Gangadharan Professor & HoD, Dept. of OBG PES Medical College, Kuppam - Virtual | External expert | |
| 27. | Dr.S.B.Amarnath Professor & HoD Dept. of ENT, SVIMS-SPMCW | Member | |
| 28. | Dr. Ravi. D | External expert | |

Gen. Surgery

| | | | |
|-----|--|-----------------|--|
| | SVIMS-SPMCW, Tirupati | | |
| 12. | Dr. Pankaj B Shah Professor & Associate Dean (Research) Dept of community medicine SRMC, Chennai - Virtual | External expert | |
| 13. | Dr. K. Umamaheswara Rao Professor & HoD Dept. of Pharmacology SVIMS-SPMCW, Tirupati | Member | |
| 14. | Dr. Ashalatha Professor & HoD Dept of Pharmacology SVMC, Tirupati - Virtual | External expert | |
| 15. | Dr. N. Rukmangadha Professor & HoD Dept. of Pathology SVIMS, Tirupati | Member | |
| 16. | Dr. Janaki, Professor & HoD Dept. of Pathology Shanthi Ram Medical College Nandyal - Virtual | External expert | |
| 17. | Dr. B. Venkataramana Professor & HoD Dept. of Microbiology SVIMS-SPMCW, Tirupati | Member | |
| 18. | Dr. Animireddy Kishore Professor, Dept. of Microbiology Apollo Institute of Medical Sciences and Research, Murakambattu, Chittoor - Virtual | External expert | |
| 19. | Dr. K. Jyothi Prasad Professor & HoD, Dept. of Forensic Medicine SVIMS-SPMCW, Tirupati | Member | |
| 20. | Dr. Kilari Bhaskar Md Professor & Head Dept. of Forensic Medicine & Toxicology Government Medical College, Eluru - Virtual | External expert | |
| 21. | Dr. J. Harikrishna Professor & HoD Dept. of General Medicine SVIMS-SPMCW, Tirupati | Member | |
| 22. | Dr. Ravi. K Professor & Head, dept. of Medicine Bangalore Medical College and Research Institute Fort, K. R. Road, Bangalore - Virtual | External expert | |
| 23. | Dr. Y. Mutheeswaraiiah Professor & HoD Dept. of General Surgery SVIMS-SPMCW, Tirupati | Member | |
| 24. | Dr. S. Nagamuniah, MS., Professor, Dept. of General Surgery, ACSR Govt., Medical College, Nellore | External expert | |
| 25. | Dr. J. Malathi Professor & HoD Dept. of OBG, SVIMS-SPMCW Tirupati | Member | |

Sd/-
20/5/24

OBG

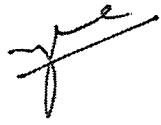
**SRI VENKATESWARA INSTITUTE OF MEDICAL SCIENCES
SVIMS- SRI PADMAVATHI MEDICAL COLLEGE FOR WOMEN::TIRUPATI**

Minutes of the 3rd Board of Studies (3rd MBBS Part-II) Meeting held at College Council Hall, SVIMS-SPMCW on 30.07.2024 from 10 AM onwards.


Members of the Board of Studies:

| | | |
|----|--|------------------|
| 1 | Dr Alladi Mohan Dean SVIMS | Chairman |
| 2 | Dr.UshaKalawat Principal, SVIMS-SPMCW | Member Secretary |
| 3 | Dr. Aparna R. Bitla Registrar, SVIMS - Virtual | Member |
| 4 | Dr. V. Vanajakshamma Controller of Examinations SVIMS | Member |
| 5 | Dr. J. Harikrishna Professor & HoD 3 rd MBBS Part-II, Coordinator Dept. of General Medicine SVIMS, Tirupati | Member |
| 6 | Dr. Ravi. K Professor & HoD, Dept. of Medicine Bangalore Medical College and Research Institute Fort, K. R. Road, Bangalore - Virtual | External expert |
| 7 | Dr. Y. Mutheswaraiah Professor & HoD Dept. of General Surgery SVIMS-SPMCW, Tirupati | Member |
| 8 | Dr. S. Nagamuneiah, MS., Professor, Dept. of General Surgery, ACSR Govt., Medical College, Nellore | External expert |
| 9 | Dr. J. Malathi Professor & HoD Dept.of OBG, SVIMS-SPMCW Tirupati. | Member |
| 10 | Dr. Keshav Gangadharan Professor Dept. of OBG PES Medical College, Kuppam - Virtual | External expert |
| 11 | Dr. S. B. Amarnath Professor & HoD Dept. of ENT, SVIMS-SPMCW | Member |
| 12 | Dr. Ravi. D Professor & HoD, Dept. of ENT Mandya Institute of Medical Sciences Mandya, Karnataka - Virtual | External expert |
| 13 | Dr.Prabhanjankumar Associate Professor & HoD Dept. of Ophthalmology SVIMS-SPMCW | Member |

Paediatrics

| | | | |
|-----|---|--|---|
| | | | |
| 28. | Dr. Ravi. D Professor & HoD, Dept. of ENT Mandya Institute of Medical Sciences Mandya, Karnataka - Virtual | External expert | |
| 29. | Dr. Prabhanjankumar Associate Professor & HoD Dept. of Ophthalmology SVIMS-SPMCW | Member | |
| 30. | Dr. V. Vijaya Lakshmi Professor & HoD, Dept. of Ophthalmology Govt. Medical College, Guntur - Virtual | External expert | |
| 31. | Dr. N. Punith Patak Professor & HoD Dept. of Pediatrics, SVIMS-SPMCW | Member | |
| 32. | Dr. Vinayaka. G Professor & HoD Dept. of Paediatrics Subbaiah Institute of Medical sciences Shimoga - Virtual | External expert |  |
| 33. | Dr. S. M. Venugopal Associate Professor & HoD Dept. of Orthopaedics SVIMS-SPMCW | Member | |
| 34. | Dr. Arun H S Professor Dept. of Orthopaedics Sri Devaraj Urs Medical College, Tamaka Kolar - Virtual | External expert | |
| 35. | Dr. Arpana Bhide Professor Dept. of Physiology SVIMS-SPMCW | 1 st MBBS Co-coordinator | |
| 36. | Dr. N. Rukmangadha Professor & HoD Dept. of Pathology SVIMS-SPMCW, Tirupati | 2 nd MBBS Coordinator | |
| 37. | Dr. K. Nagaraj Professor & HoD Dept. of Community medicine SVIMS-SPMCW, Tirupati | Coordinator 3rd MBBS Part-I | |
| 38. | Dr. J. Harikrishna Professor & HoD Dept. of General Medicine SVIMS-SPMCW, Tirupati | 3rd MBBS Part-II Coordinator | |

ENT

| | | | |
|-----|---|--|---|
| | | | |
| 28. | Dr. Ravi. D Professor & HoD, Dept. of ENT Mandya Institute of Medical Sciences Mandya, Karnataka - Virtual | External expert |  |
| 29. | Dr. Prabhanjankumar Associate Professor & HoD Dept. of Ophthalmology SVIMS-SPMCW | Member | |
| 30. | Dr. V. Vijaya Lakshmi Professor & HoD, Dept. of Ophthalmology Govt. Medical College, Guntur - Virtual | External expert | |
| 31. | Dr. N. Punith Patak Professor & HoD Dept. of Pediatrics, SVIMS-SPMCW | Member | |
| 32. | Dr. Vinayaka. G Professor & HoD Dept. of Paediatrics Subbaiah Institute of Medical sciences Shimoga - Virtual | External expert | |
| 33. | Dr. S. M. Venugopal Associate Professor & HoD Dept. of Orthopaedics SVIMS-SPMCW | Member | |
| 34. | Dr. Arun H S Professor Dept. of Orthopaedics Sri Devaraj Urs Medical College, Tamaka Kolar - Virtual | External expert | |
| 35. | Dr. Arpana Bhide Professor Dept. of Physiology SVIMS-SPMCW | 1 st MBBS Co-coordinator | |
| 36. | Dr. N. Rukmangadha Professor & HoD Dept. of Pathology SVIMS-SPMCW, Tirupati | 2 nd MBBS Coordinator | |
| 37. | Dr. K. Nagaraj Professor & HoD Dept. of Community medicine SVIMS-SPMCW, Tirupati | Coordinator 3rd MBBS Part-I | |
| 38. | Dr. J. Harikrishna Professor & HoD Dept. of General Medicine SVIMS-SPMCW, Tirupati | 3rd MBBS Part-II Coordinator | |

Ophthalmology

| | | | |
|-----|--|--|-------------------|
| | Mandya Institute of Medical Sciences Mandya, Karnataka - Virtual | | |
| 29. | Dr. Prabhankumar Associate Professor & HoD Dept. of Ophthalmology SVIMS-SPMCW | Member | |
| 30. | Dr. V. Vijaya Lakshmi Professor & HoD, Dept. of Ophthalmology Govt. Medical College, Guntur - Virtual | External expert | V. Vijaya Lakshmi |
| 31. | Dr. N. Punith Patak Professor & HoD Dept. of Pediatrics, SVIMS-SPMCW | Member | |
| 32. | Dr. Vinayaka G Professor & HoD Dept. of Paediatrics Subbaiah Institute of Medical sciences Shimoga - Virtual | External expert | |
| 33. | Dr. S. M. Venugopal Associate Professor & HoD Dept. of Orthopaedics SVIMS-SPMCW | Member | |
| 34. | Dr. Arun H S Professor Dept. of Orthopaedics Sri Devaraj Urs Medical College, Tamaka Kolar - Virtual | External expert | |
| 35. | Dr. Arpana Bhide Professor Dept. of Physiology SVIMS-SPMCW | 1 st MBBS Co-coordinator | |
| 36. | Dr. N. Rukmangadha Professor & HoD Dept. of Pathology SVIMS-SPMCW, Tirupati | 2 nd MBBS Coordinator | |
| 37. | Dr. K. Nagaraj Professor & HoD Dept. of Community medicine SVIMS-SPMCW, Tirupati | Coordinator 3rd MBBS Part-I | |
| 38. | Dr. J. Harikrishna Professor & HoD Dept. of General Medicine SVIMS-SPMCW, Tirupati | 3rd MBBS Part-II Coordinator | |

V. Vijaya Lakshmi

05/10

| | | | |
|-----|--|--|--|
| | | | |
| 28. | Dr. Ravi. D Professor & HoD, Dept. of ENT Mandya Institute of Medical Sciences Mandya, Karnataka - Virtual | External expert | |
| 29. | Dr. Prabhankumar Associate Professor & HoD Dept. of Ophthalmology SVIMS-SPMCW | Member | |
| 30. | Dr. V. Vijaya Lakshmi Professor & HoD, Dept. of Ophthalmology Govt. Medical College, Guntur - Virtual | External expert | |
| 31. | Dr. N. Punith Patak Professor & HoD Dept. of Pediatrics, SVIMS-SPMCW | Member | |
| 32. | Dr. Vinayaka G Professor & HoD Dept. of Paediatrics Subbaiah Institute of Medical sciences Shimoga - Virtual | External expert | |
| 33. | Dr. S. M. Venugopal Associate Professor & HoD Dept. of Orthopaedics SVIMS-SPMCW | Member | |
| 34. | Dr. Arun H S Professor Dept. of Orthopaedics Sri Devaraj Urs Medical College, Tamaka Kolar - Virtual | External expert | |
| 35. | Dr. Arpana Bhide Professor Dept. of Physiology SVIMS-SPMCW | 1 st MBBS Co-coordinator | |
| 36. | Dr. N. Rukmangadha Professor & HoD Dept. of Pathology SVIMS-SPMCW, Tirupati | 2 nd MBBS Coordinator | |
| 37. | Dr. K. Nagaraj Professor & HoD Dept. of Community medicine SVIMS-SPMCW, Tirupati | Coordinator 3rd MBBS Part-I | |
| 38. | Dr. J. Harikrishna Professor & HoD Dept. of General Medicine SVIMS-SPMCW, Tirupati | 3rd MBBS Part-II Coordinator | |

DR. ARUN H.S.
KMC Reg. No. 46362
Professor & Unit Chief
Department of Orthopaedics
R.L. Jalappa Hospital

SRI VENKATESWARA INSTITUTE OF MEDICAL SCIENCES
SVIMS- SRI PADMVATHI MEDICAL COLLEGE FOR WOMEN::TIRUPATI

Minutes of the 3rd Board of Studies (3rd MBBS Part-I) Meeting held at College Council Hall, SVIMS-SPMCW on 31.07.2024 from 10 AM onwards.

Members of the Board of Studies:

| | | |
|---|---|------------------|
| 1 | Dr Alladi Mohan Dean SVIMS | Chairman |
| 2 | Dr.UshaKalawat Principal SVIMS-SPMCW | Member Secretary |
| 3 | Dr Aparna R Bitla Registrar, SVIMS - Virtual | Member |
| 4 | Dr V. Vanajakshamma, Controller of Examination SVIMS | Member |
| 5 | Dr. K. Nagaraj Professor& HoD Dept. of Community medicine & 3 rd MBBS Part-I Coordinator SVIMS-SPMCW, Tirupati | Member |
| 6 | Dr. Pankaj B Shah Professor & Associate Dean (Research) Dept. of community medicine SRMC, Chennai - Virtual | External expert |
| 7 | Dr. K. Jyothi Prasad Professor & HoD, Dept. of Forensic Medicine SVIMS-SPMCW, Tirupati | Member |
| 8 | Dr. Kilari Bhaskar Md Professor & HoD, Dept. of Forensic Medicine & Toxicology Government Medical College, Eluru - Virtual | External expert |

SVIMS-SPMCW has conducted the 3rd Board of Studies (3rd MBBS Part-I) Meeting for approval of the Competent Based Medical Education Curriculum notified by NMC (UGMEB) vide No.U.14021/8/2023-UGMEB, dated, 01.08.2023 for implementation of the said regulations from the Academic Year 2023 onwards in SVIMS-Sri Padmavathi Medical College for Women of SVIMS University.

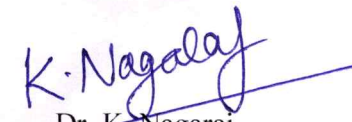
The Principal, SVIMS-SPMCW welcomed all the members and initiated the proceedings as per the agenda. The Members discussed the agenda in detail and resolved as mentioned below.

MINUTES OF THE MEETING
Subject wise Curriculum – 3rd MBBS Part-I


The Committee approved to implement Competent Based Medical Education Curriculum for MBBS course notified by NMC (UGMEB) vide No.U.14021/8/2023-UGMEB, dated, 01.08.2023 for the batches admitted in MBBS from the Academic year 2019-20 effective from the year 2023 onwards in SVIMS-SPMCW and to follow the guidelines notified by NMC from time to time.

Curriculum of 3rd MBBS Part-I Course:


- | | | |
|---|--|---|
| 1 | Community Medicine | <u>Approved</u> |
| 2 | Forensic Medicine | <u>Approved</u> |
| 3 | Non Component Subjects i.e., General Medicine, General Surgery, OBG, Paediatrics, ENT, Ophthalmology & Orthopaedics. | Approved in respective BOS Meetings held on 30.07.2024 |

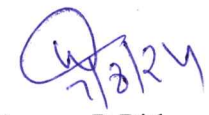

Dr. K. Nagaraj
Professor & HOD
Dept. of Community
Medicine & 3rd MBBS
Part-I Coordinator,
SVIMS-SPMCW,
Tirupati

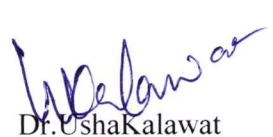
Mail Attached.
Dr. Pankaj B Shah
Professor & Associate
Dean (Research)
Dept of community
medicine
SRMC, Chennai

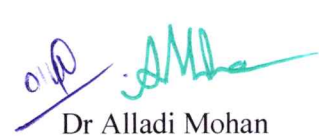

Dr. K. Jyothi Prasad
Professor & HoD, Dept. of
Forensic Medicine
SVIMS-SPMCW, Tirupati

Mail Attached.
Dr. Kilari Bhaskar Md
Professor & Head, Dept.
of Forensic Medicine &
Toxicology
Government Medical
College, Eluru


Dr V. Vanajakshamma,
Controller of Examination
SVIMS


Dr Aparna R Bitla
Registrar, SVIMS


Dr. Usha Kalawat
Principal
SVIMS-SPMCW


Dr Alladi Mohan
Dean,
SVIMS

Subject wise Curriculum – 3rd MBBS Part-I

The Committee approved to implement Competent Based Medical Education Curriculum for MBBS course notified by NMC (UGMEB) vide No U 14021/8/2023-UGMEB, dated, 01 08 2023 for the batches admitted in MBBS from the Academic year 2019-20 effective from the year 2023 onwards in SVIMS-SPMCW and to follow the guidelines notified by NMC from time to time

Curriculum of 3rd MBBS Part-I Course:

- 1 Community Medicine
- 2 Forensic Medicine
- 3 Non Component Subjects i e , General Medicine, General Surgery, OBG, Paediatrics, ENT, Ophthalmology & Orthopaedics.

Dr. Pankaj Shah
Dept. of Community Medicine

Approved

Approved

Approved in respective BOS
Meetings held on 30 07 2024

Dr. K. Nagaraj
Professor & HoD
Dept. of Community
Medicine & 3rd MBBS
Part-I Coordinator
SVIMS-SPMCW
Tirupati

Dr. Pankaj B Shah
Professor & Associate
Dean (Research)
Dept of community
medicine
SRMC, Chennai

Dr. K Jyothi Prasad
Professor & HoD, Dept. of
Forensic Medicine
SVIMS-SPMCW, Tirupati

Dr. Kilari Bhaskar
Professor & HoD, I
of Forensic Medicine
Toxicology
Government Medical
College, Eluru

Dr V. Vanajakshamma,
Controller of Examination
SVIMS

Dr. Aparna R Bitla
Registrar, SVIMS

Dr. Usha Kalawat
Principal
SVIMS-SPMCW

Dr. Alladi Mohan
Dean
SVIMS

Tc

MINUTES OF THE MEETING
Subject wise Curriculum - 3rd MBBS Part-I

The Committee approved to implement Competent Based Medical Education Curriculum for MBBS course notified by NMC (UGMEB) vide No.U.14021/8/2023-UGMEB, dated, 01.08.2023 for the batches admitted in MBBS from the Academic year 2019-20 effective from the year 2023 onwards in SVIMS-SPMCW and to follow the guidelines notified by NMC from time to time.

Curriculum of 3rd MBBS Part-I Course:

- 1 Community Medicine
- 2 Forensic Medicine
- 3 Non Component Subjects i.e., General Medicine,
General Surgery, OBG, Paediatrics, ENT,
Ophthalmology & Orthopaedics.

Dr. R. Bhaskar
Dep. of Forensic Medicine

Approved

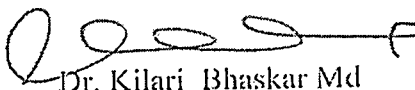
Approved

Approved in respective BOS
Meetings held on 30.07.2024

Dr. K. Nagaraj
Professor & HoD
Dept. of Community
Medicine & 3rd MBBS
Part-I Coordinator
SVIMS-SPMCW
Tirupati

Dr. Pankaj B Shah
Professor & Associate
Dean (Research)
Dept of community
medicine
SRMC, Chennai

Dr. K. Jyothi Prasad
Professor & HoD, Dept. of
Forensic Medicine
SVIMS-SPMCW, Tirupati


Dr. Kilar Bhaskar Md
Professor & HoD, Dept.
of Forensic Medicine &
Toxicology
Government Medical
College, Eluru

Dr V. Vanajakshamma,
Controller of Examination
SVIMS

Dr Aparna R Bitla
Registrar. SVIMS

Dr. Usha Kalawat
Principal
SVIMS-SPMCW

Dr Alladi Mohan
Dean
SVIMS