



Dr. D. Y. PATIL VIDYAPEETH, PUNE

(Deemed to be University)

**Regulations and Competency Based
Under Graduate Curriculum for the
Indian Medical Graduate in Clinical Subjects
(Phase III)**

From the Academic Year 2023-24 onwards

*(Applicable for the Batch Admitted to the
Third Professional MBBS (Part II) in 2023-24)*



Dr. D. Y. PATIL VIDYAPEETH, PIMPRI, PUNE
(Deemed to be University)

(Accredited (3rd Cycle) by NAAC with a CGPA of 3.64 on four point scale at 'A++' Grade)
(Declared as Category - I University by UGC Under Graded Autonomy Regulations, 2018)
(An ISO 9001:2015 and 14001:2015 Certified University and Green Education Campus)

Dr. Narendra M. Kadu
Registrar

Ref. No. : DPU/601-AC/124
Date : 16/07/2024

NOTIFICATION

In Pursuance of the Competency-Based Undergraduate Curriculum for the Indian Medical Graduate published by National Medical Commission (Undergraduate Medical Education Board, 2023) vide its Notification No. U. 14021/8/2023-UGMEB dated 1st August 2023.

And Whereas in pursuance of the resolution passed by the **Academic Council** at its meeting held on **14th June, 2024** vide **Resolution No. BM-23(i)-24** regarding implementing a competency-based curriculum for **Third Professional MBBS students as per NMC regulations**.

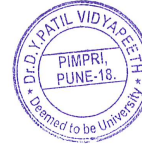
And Whereas in pursuance of the resolution passed by the **Executive Council** at its meeting held on **26th June, 2024** vide **Resolution No. BM-19(i)-24** regarding implementing a competency-based curriculum for **Third Professional MBBS students as per NMC regulations**.

It is notified to all concerned that the **Regulations and Competency-Based Curriculum for the Indian Medical Graduate in Clinical Subjects (Phase III)** from the **Academic Year 2023-24** and onwards is hereby published.

The **Revised Competency-Based Curriculum for the Indian Medical Graduate in Clinical Subjects (Phase III)** consists of a syllabus for the following courses:

- | | |
|---|-------------------------------|
| 1. General Medicine | 7. Orthopedics |
| 2. Pediatric | 8. Anesthesiology |
| 3. Psychiatry | 9. Radiodiagnosis |
| 4. Dermatology, Venereology and Leprosy | 10. Ophthalmology |
| 5. General Surgery | 11. Otorhinolaryngology (ENT) |
| 6. Obstetrics and Gynaecology | |

The syllabus will be useful to all concerned. This will come into force with immediate effect.




(Dr. Narendra M. Kadu)
Registrar

Copy to:

1. PS to Chancellor for kind information of Hon'ble Chancellor, Dr. D. Y. Patil Vidyapeeth, Pune.
2. PS to Vice Chancellor for kind information of Hon'ble Vice Chancellor, Dr. D. Y. Patil Vidyapeeth, Pune.
3. The Dean, Dr. D. Y. Patil Medical College Hospital & Research Centre, Pimpri, Pune
4. The Controller of Examinations, Dr. D. Y. Patil Vidyapeeth, Pune.
5. Director (IQAC), Dr. D. Y. Patil Vidyapeeth, Pune.
6. Web Master for uploading on the Website.

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CBME CURRICULUM

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 health care to the evolving needs of the nation and the world.

About 25 years have passed since the existing Regulations on Graduate Medical Education, 1997 were notified, necessitating a relook 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 stakeholders. Emerging health care 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 teamwork, 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 or he 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 undergraduate program, the Indian Medical Graduate should be able to:

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

4. Institutional Goals

In consonance with the national goals, each medical institution should evolve institutional goals to define the kind of trained manpower (or professionals) they intend to produce. The Indian Medical Graduates coming out of a medical institute should:

- a) Be competent in diagnosis and management of common health problems of the individual and the community, commensurate with his/her position as a member of the health team at the primary, secondary or tertiary levels, using his/her clinical skills based on history, physical examination and relevant investigations.
- b) Be competent to practice preventive, promotive, curative, palliative and rehabilitative medicine in respect to the commonly encountered health problems.
- c) Appreciate rationale for different therapeutic modalities; be familiar with the administration of the "essential drugs" and their common side effects.
- d) Appreciate the socio-psychological, cultural, economic and environmental factors affecting health and develop humane attitude towards the patients in discharging one's professional responsibilities.
- e) 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.
- f) Be familiar with the basic factors which are essential for the implementation of the National Health Programs including practical aspects of the following:
 - I. Family Welfare and Maternal and Child Health (MCH);
 - II. Sanitation and water supply;
 - III. Prevention and control of communicable and non-communicable diseases;

- IV. Immunization;
 - V. Health Education and advocacy;
 - VI. Indian Public Health Standards (IPHS) at various level of service delivery;
 - VII. Bio-medical waste disposal
 - VIII. Organizational and or institutional arrangements.
- g) 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 counselling.
 - h) 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.
 - i) Be able to work as a leading partner in health care teams and acquire proficiency in communication skills.
 - j) Be competent to work in a variety of health care settings.
 - k) Have personal characteristics and attitudes required for professional life including personal integrity, sense of responsibility and dependability 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:-

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

- b) Leader and member of the health care team and system with capabilities to collect, analyze, synthesize and communicate health data appropriately.
- c) Communicator with patients, families, colleagues and community.
- d) Lifelong learner committed to continuous improvement of skills and knowledge.
- e) Professional, who is committed to excellence, is ethical, responsive and accountable to patients, community and profession.
- f) Critical thinker who demonstrates problem solving skills in professional practice.
- g) Researcher who generates and interprets evidence.

6. Competency Base 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 Graduates 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, behavioural and social perspective.
- Demonstrate knowledge of abnormal human structure, function and development from a molecular, cellular, biological, clinical, behavioural 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 who 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 health care team and system

- Work effectively and appropriately with colleagues in an inter-professional health care 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 health care 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 pathway 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.

Regulations:

1. Third Professional MBBS (Part II) training is for 18 months.
2. Subjects include (a) Medicine and Allied subspecialties (General Medicine, Psychiatry, Dermatology, Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis; (b) Surgery and Allied specialties (General Surgery, Otorhinolaryngology, Ophthalmology, Orthopaedics, Dentistry, Physical Medicine and rehabilitation, Anaesthesiology and Radio-diagnosis); (c) Obstetrics and Gynaecology (including Family Welfare); (d) Paediatrics; (e) AETCOM module.
3. 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.
4. Appointment of Examiners:
 - a. 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).
 - b. 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 the coordinator of the whole examination programme so that uniformity in the matter of assessment of candidates is maintained.
 - c. There shall be a Chairman of the Board of paper-setters who shall be an internal examiner and shall moderate the questions.
 - d. All eligible examiners with requisite qualifications and experience can be appointed internal examiners by rotation in their subjects.

- e. All theory paper assessment should be done as central assessment program (CAP) of concerned university.
- f. Internal examiners shall be appointed from the same institution for unitary examination in the same institution.

5. Criteria for Passing:

- a. In subjects that have two papers, the learner must secure minimum 40% of marks in aggregate (both papers together) to pass in the said subject.
- b. A candidate shall obtain 50% marks in aggregate and 60:40 (minimum) or 40:60 (minimum) in University conducted examination separately in Theory and in Practical (practical includes: practical/clinical and viva voce) in order to be declared as passed in that subject.

6. **No grace marks to be considered for passing the examination.**

7. Electives (1 month) will be in 2 blocks of 15 days each in Final first; 1st block after annual exam of III MBBS part 1 and 2nd block after the end of 1st elective.

GENERAL MEDICINE

GENERAL MEDICINE

a. 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.

b. Broad subject specific objectives:

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 therapeutica 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.

c. 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.

d. 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.

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
GENERAL MEDICINE (CODE: IM)									
Topic: Heart Failure, Number of competencies: (30), Number of procedures that require certification : (01)									
IM1.1	Describe and discuss the epidemiology, pathogenesis clinical evolution and course of common causes of heart disease including: rheumatic/ valvular, ischemic, hypertrophic inflammatory	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
IM1.2	Describe and discuss the genetic basis of some forms of heart failure	K	KH	N	Lecture, Small group discussion	Written		Pathology, Physiology	
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology , Microbiolo gy	
IM1.4	Stage heart failure	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM1.5	Describe, discuss and differentiate the processes involved in R Vs L heart failure, systolic vs diastolic failure	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
IM1.6	Describe and discuss the compensatory mechanisms involved in heart failure including cardiac remodelling and neurohormonal adaptations	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
IM1.7	Enumerate, describe and discuss the factors that exacerbate heart failure including ischemia, arrhythmias, anemia, thyrotoxicosis, dietary factors drugs etc.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
IM1.8	Describe and discuss the pathogenesis and development of common arrhythmias involved in heart failure particularly atrial fibrillation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
IM1.9	Describe and discuss the clinical presentation and features, diagnosis, recognition and management of acute rheumatic fever	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Microbiolo gy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	SH	Y	Bedside clinic	Skill assessment			
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM1.12	Demonstrate peripheral pulse, volume, character, quality and variation in various causes of heart failure	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM1.14	Demonstrate and measure jugular venous distension	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM1.15	Identify and describe the timing, pitch quality conduction and significance of precordial murmurs and their variations	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM1.16	Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis	K	KH	Y	Bedside clinic, Small group discussion	Skill assessment			
IM1.17	Order and interpret diagnostic testing based on the clinical diagnosis including 12 lead ECG, Chest radiograph, blood cultures	K	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM1.18	Perform and interpret a 12 lead ECG	S	P	Y	Bedside clinic, DOAP session	Skill assessment	3		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	KH	N	Lecture, Small group discussion, Bedside clinic	Skill assessment		Radio- diagnosis	
IM1.20	Determine the severity of valvular heart disease based on the clinical and laboratory and imaging features and determine the level of intervention required including surgery	C	SH	Y	Small group discussion, Lecture, Bedside clinic	Written/ Skill assessment			
IM1.21	Describe and discuss and identify the clinical features of acute and subacute endocarditis, echocardiographic findings, blood culture and sensitivity and therapy	K	KH/ SH	Y	Bedside clinic, Small group discussion, Lecture	Skill assessment			
IM1.22	Assist and demonstrate the proper technique in collecting specimen for blood culture	S	SH	Y	DOAP session	Skill assessment		Microbiolo gy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM1.23	Describe, prescribe and communicate non pharmacologic management of heart failure including sodium restriction, physical activity and limitations	S/C	SH	Y	Lecture, Small group discussion	Skill assessment			
IM1.24	Describe and discuss the pharmacology of drugs including indications, contraindications in the management of heart failure including diuretics, ACE inhibitors, Beta blockers, aldosterone antagonists and cardiac glycosides	K	KH	Y	Lecture, Small group discussion	Viva voce/ written		Pharmacology	
IM1.25	Enumerate the indications for valvuloplasty, valvotomy, coronary revascularization and cardiac transplantation	K	KH	Y	Lecture, Small group discussion, Bedside clinic	Viva voce/ written			
IM1.26	Develop document and present a management plan for patients with heart failure based on type of failure, underlying aetiology	S	SH	Y	Bedside clinic, Skill assessment, Small group discussion	Bedside clinic/ Skill assessment/ written			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM1.27	Describe and discuss the role of penicillin prophylaxis in the prevention of rheumatic heart disease	K	KH	Y	Bedside clinic, Small group discussion	Written		Microbiology, Pharmacology	
IM1.28	Enumerate the causes of adult presentations of congenital heart disease and describe the distinguishing features between cyanotic and acyanotic heart disease	K	KH	Y	Bedside clinic, Small group discussion	Bedside clinic/ Skill assessment/written			
IM1.29	Elicit document and present an appropriate history, demonstrate correctly general examination, relevant clinical findings and formulate document and present a management plan for an adult patient presenting with a common form of congenital heart disease	K	KH	Y	Bedside clinic, Small group discussion	Skill assessment/ written			
IM1.30	Administer an intramuscular injection with an appropriate explanation to the patient	S	SH	Y	Bedside clinic, Skill assessment	Log book documentation of completion		Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Acute Myocardial Infarction / IHD, Number of competencies: (24), Number of procedures that require certification : (02)									
IM2.1	Discuss and describe the epidemiology, antecedents and risk factors for atherosclerosis and ischemic heart disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology , Communit y Medicine	
IM2.2	Discuss the aetiology of risk factors both modifiable and non modifiable of atherosclerosis and IHD	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
IM2.3	Discuss and describe the lipid cycle and the role of dyslipidemia in the pathogenesis of atherosclerosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology , Biochemist ry	
IM2.4	Discuss and describe the pathogenesis natural history, evolution and complications of atherosclerosis and IHD	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
IM2.5	Define the various acute coronary syndromes and describe their evolution, natural history and outcomes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM2.7	Perform, demonstrate and document a physical examination including a vascular and cardiac examination that is appropriate for the clinical presentation	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM2.9	Distinguish and differentiate between stable and unstable angina and AMI based on the clinical presentation	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM2.10	Order, perform and interpret an ECG	S	P	Y	Bedside clinic, DOAP session	Skill assessment	3		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM2.11	Order and interpret a Chest X-ray and markers of acute myocardial infarction	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM2.12	Choose and interpret a lipid profile and identify the desirable lipid profile in the clinical context	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Biochemistry	
IM2.13	Discuss and enumerate the indications for and findings on echocardiogram, stress testing and coronary angiogram	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM2.14	Discuss and describe the indications for admission to a coronary care unit and supportive therapy for a patient with acute coronary syndrome	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM2.15	Discuss and describe the medications used in patients with an acute coronary syndrome based on the clinical presentation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
IM2.16	Discuss and describe the indications for acute thrombolysis, PTCA and CABG	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM2.17	Discuss and describe the indications and methods of cardiac rehabilitation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM2.18	Discuss and describe the indications, formulations, doses, side effects and monitoring for drugs used in the management of dyslipidemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology, Biochemistry	
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM2.20	Discuss and describe the assessment and relief of pain in acute coronary syndromes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
IM2.21	Observe and participate in a controlled environment an ACLS program	S	KH	N	DOAP session	NA			
IM2.22	Perform and demonstrate in a mannequin BLS	S	P	Y	DOAP session	Skill assessment	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM2.23	Describe and discuss the indications for nitrates, antiplatelet agents, gpIIb IIIa inhibitors, beta blockers, ACE inhibitors etc in the management of coronary syndromes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
IM2.24	Counsel and communicate to patients with empathy lifestyle changes in atherosclerosis / post coronary syndromes	C/A	SH	Y	DOAP session	Skill assessment		AETCOM	
Topic: Pneumonia, Number of competencies: (19), Number of procedures that require certification: (NIL)									
IM3.1	Define, discuss, describe and distinguish community acquired pneumonia, nosocomial pneumonia and aspiration pneumonia	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Human Anatomy, Pathology, Microbiology	
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	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Microbiology	
IM3.3	Discuss and describe the pathogenesis, presentation, natural history and complications of pneumonia	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology, Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM3.4	Elicit document and present an appropriate history including the evolution, risk factors including immune status and occupational risk	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM3.6	Generate document and present a differential diagnosis based on the clinical features, and prioritise the diagnosis based on the presentation	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Radio-diagnosis, Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM3.8	Demonstrate in a mannequin and interpret results of an arterial blood gas examination	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM3.9	Demonstrate in a mannequin and interpret results of a pleural fluid aspiration	S	SH	Y	DOAP session	Skill assessment			
IM3.10	Demonstrate the correct technique in a mannequin and interpret results of a blood culture	S	SH	Y	DOAP session	Skill assessment		Microbiology	
IM3.11	Describe and enumerate the indications for further testing including HRCT, Viral cultures, PCR and specialised testing	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Radiodiagnosis, Microbiology	
IM3.12	Select, describe and prescribe based on the most likely aetiology, an appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum	S	SH	Y	Bed side clinic, DOAP session	Skill Assessment/ Written/ Viva voce		Pharmacology, Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM3.13	Select, describe and prescribe based on culture and sensitivity appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum.	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Written/ Viva voce		Pharmacology, Microbiology	
IM3.14	Perform and interpret a sputum gram stain and AFB	S	P	Y	DOAP session	Skill assessment		Microbiology	
IM3.15	Describe and enumerate the indications for hospitalisation in patients with pneumonia	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			
IM3.16	Describe and enumerate the indications for isolation and barrier nursing in patients with pneumonia	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			
IM3.17	Describe and discuss the supportive therapy in patients with pneumonia including oxygen use and indications for ventilation	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			
IM3.18	Communicate and counsel patient on family on the diagnosis and therapy of pneumonia	C/A	SH	Y	DOAP session	Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM3.19	Discuss, describe, enumerate the indications and communicate to patients on pneumococcal and influenza vaccines	S/C	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Microbiolo gy	
Topic: Fever and febrile syndromes, Number of competencies : (26), Number of procedures that require certification : (NIL)									
IM4.1	Describe and discuss the febrile response and the influence of host immune status, risk factors and comorbidities on the febrile response	K	K	Y	Lecture, Small group discussion	Written		Microbiolo gy	
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	K	K	Y	Lecture, Small group discussion	Written		Microbiolo gy	
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)	K	K	Y	Lecture, Small group discussion	Written		Microbiolo gy, Communit y Medicine	
IM4.4	Describe and discuss the pathophysiology and manifestations of inflammatory causes of fever	K	KH	Y	Lecture, Small group discussion	Written		Microbiolo gy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM4.5	Describe and discuss the pathophysiology and manifestations of malignant causes of fever including hematologic and lymph node malignancies	K	KH	Y	Lecture, Small group discussion	Written		Pathology, Microbiology	
IM4.6	Discuss and describe the pathophysiology and manifestations of malaria	K	KH	Y	Lecture, Small group discussion	Written		Microbiology	
IM4.7	Discuss and describe the pathophysiology and manifestations of the sepsis syndrome	K	K	Y	Lecture, Small group discussion	Written			
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	K	K	Y	Lecture, Small group discussion	Written		Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Microbiology	
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)	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM4.11	Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes	K	SH	Y	Bedside clinic, DOAP session	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	K	SH	Y	Bedside clinic, Skill assessment	Skill assessment		Pathology, Microbiology	
IM4.13	Perform and interpret a sputum gram stain	S	SH	Y	DOAP session	Log book/ documentation		Microbiology	
IM4.14	Perform and interpret a sputum AFB	S	SH	Y	DOAP session	Log book/ documentation		Microbiology	
IM4.15	Perform and interpret a malarial smear	S	SH	Y	DOAP session	Log book/ documentation/ Skill assessment		Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM4.16	Enumerate the indications and describe the findings in tests of inflammation and specific rheumatologic tests, serologic testing for pathogens including HIV, bone marrow aspiration and biopsy	K	KH	N	Lecture, Small group discussion	Written		Pathology	
IM4.17	Observe and assist in the performance of a bone marrow aspiration and biopsy in a simulated environment	S	SH	N	Skills lab	Log book/ document ation/ DOAP session		Pathology	
IM4.18	Enumerate the indications for use of imaging in the diagnosis of febrile syndromes	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			
IM4.19	Assist in the collection of blood and wound cultures	S	SH	Y	DOAP session	Log book/ document ation		Microbiolo gy	
IM4.20	Interpret a PPD (Mantoux)	S	SH	Y	DOAP session	Log book/ document ation		Microbiolo gy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM4.21	Develop and present an appropriate diagnostic plan based on the clinical presentation, most likely diagnosis in a prioritised and cost effective manner	K	KH	Y	Bedside clinic, Skill assessment	Skill assessment			
IM4.22	Describe and discuss the pharmacology, indications, adverse reactions, interactions of antimalarial drugs and basis of resistance	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
IM4.23	Prescribe drugs for malaria based on the species identified, prevalence of drug resistance and national programs	S	SH	Y	Small group discussion	Skill assessment		Microbiology, Pharmacology	
IM4.24	Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis	C	SH	Y	DOAP session	Skill assessment			
IM4.25	Communicate to the patient and family the diagnosis and treatment	C	SH	Y	DOAP session	Skill assessment		AETCOM	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM4.26	Counsel the patient on malarial prevention	C	SH	Y	DOAP session	Skill assessment		Microbiology, Pharmacology	
Topic: Liver disease, Number of competencies: (18), Number of procedures that require certification : (NIL)									
IM5.1	Describe and discuss the physiologic and biochemical basis of hyperbilirubinemia	K	K	Y	Lecture, Small group discussion	Written / Viva voce		Pathology, Physiology	
IM5.2	Describe and discuss the aetiology and pathophysiology of liver injury	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
IM5.3	Describe and discuss the pathologic changes in various forms of liver disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM5.4	Describe and discuss the epidemiology, microbiology, immunology and clinical evolution of infective (viral) hepatitis	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Microbiology	
IM5.5	Describe and discuss the pathophysiology and clinical evolution of alcoholic liver disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM5.7	Enumerate and describe the causes and pathophysiology of drug induced liver injury	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Pharmacol ogy	
IM5.8	Describe and discuss the pathophysiology, clinical evolution and complications cholelithiasis and cholecystitis	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessme nt			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM5.11	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom	K	KH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
IM5.12	Choose and interpret appropriate diagnostic tests including: CBC, bilirubin, function tests, Hepatitis serology and ascitic fluid examination in patient with liver diseases.	S	KH	Y	Bedside clinic, DOAP session	Skill assessment		Pathology	
IM5.13	Enumerate the indications for ultrasound and other imaging studies including MRCP and ERCP and describe the findings in liver disease	K	K	Y	Bedside clinic, Small group discussion	Viva voce/ Written		Radiodiagnosis	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM5.14	Outline a diagnostic approach to liver disease based on hyperbilirubinemia, liver function changes and hepatitis serology	S	SH	Y	Bedside clinic, Small group discussion	Viva voce/ Written		Pathology, Microbiology	
IM5.15	Assist in the performance and interpret the findings of an ascitic fluid analysis	S	KH	Y	DOAP session	documentation in log book			
IM5.16	Describe and discuss the management of hepatitis, cirrhosis, portal hypertension, ascites spontaneous, bacterial peritonitis and hepatic encephalopathy	K	KH	Y	Written, Small group discussion	Skill assessment/ Written/ Viva voce		Pharmacology	General Surgery
IM5.17	Enumerate the indications, precautions and counsel patients on vaccination for hepatitis	K/C	SH	Y	Written, Small group discussion	Written/ Viva voce		Microbiology	
IM5.18	Enumerate the indications for hepatic transplantation	K	K	Y	Written, Small group discussion	Written/ Viva voce			General Surgery
Topic: HIV, Number of competencies: (23), Number of procedures that require certification : (NIL)									
IM6.1	Describe and discuss the symptoms and signs of acute HIV seroconversion	K	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM6.2	Define and classify HIV AIDS based on the CDC criteria	K	KH	Y	Lecture, Small group discussion	Short notes/ Viva voce		Microbiology	
IM6.3	Describe and discuss the relationship between CDC count and the risk of opportunistic infections	K	KH	Y	Lecture, Small group discussion	Short notes/ Viva voce		Microbiology	
IM6.4	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related opportunistic infections	K	KH	Y	Lecture, Small group discussion	Short notes/ Viva voce		Microbiology	
IM6.5	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related malignancies	K	KH	Y	Lecture, Small group discussion	Short notes/ Viva voce		Pathology, Microbiology	
IM6.6	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related skin and oral lesions	K	KH	Y	Lecture, Small group discussion	Short notes/ Viva voce		Pathology, Microbiology	
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM6.8	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom	S	SH	Y	Bedside clinic, DOAP session, Small group discussion	Skill assessment			
IM6.9	Choose and interpret appropriate diagnostic tests to diagnose and classify the severity of HIV-AIDS including specific tests of HIV, CDC	K	KH	Y	Bedside clinic, DOAP session, Small group discussion	Written/ Skill assessment		Pathology, Microbiology	
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	S	KH	Y	Bedside clinic, DOAP session, Small group discussion	Written/ Skill assessment			
IM6.11	Enumerate the indications and describe the findings for CT of the chest and brain and MRI	K	K	N	Small group discussion, Lecture, Bedside clinic	Written/ Viva voce		Radiodiagnosis	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM6.12	Enumerate the indications for and interpret the results of: pulse oximetry, ABG, Chest Radiograph	K	KH	Y	Bedside clinic, DOAP session, Small group discussion	Written/ Skill assessment			
IM6.13	Describe and enumerate the indications and side effects of drugs for bacterial, viral and other types of diarrhea	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology, Microbiology	
IM6.14	Perform and interpret AFB sputum	S	P	Y	DOAP session	Skill assessment		Microbiology	
IM6.15	Demonstrate in a model the correct technique to perform a lumbar puncture	S	SH	Y	Simulation	Skill assessment		Microbiology	
IM6.16	Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology, Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM6.17	Discuss and describe the principles and regimens used in post exposure prophylaxis	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology, Pharmacology	
IM6.18	Enumerate the indications and discuss prophylactic drugs used to prevent HIV related opportunistic infections	K/C	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Microbiology	
IM6.19	Counsel patients on prevention of HIV transmission	C	SH	Y	DOAP session	Skills assessment		AETCOM	
IM6.20	Communicate diagnosis, treatment plan and subsequent follow up plan to patients	C	SH	Y	DOAP session	Skills assessment		AETCOM	
IM6.21	Communicate with patients on the importance of medication adherence	C	SH	Y	DOAP session	Skills assessment		AETCOM	
IM6.22	Demonstrate understanding of ethical and legal issues regarding patient confidentiality and disclosure in patients with HIV	K/A	SH	Y	DOAP session, Small group discussion	Viva voce/ Written/ Skill Assessment		AETCOM	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM6.23	Demonstrate a non-judgemental attitude to patients with HIV and to their lifestyles	A	SH	Y	Small group discussion	observation by teacher		AETCOM	
Topic: Rheumatologic problems, Number of competencies: (27), Number of procedures that require certification: (NIL)									
IM7.1	Describe the pathophysiology of autoimmune disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM7.2	Describe the genetic basis of autoimmune disease	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM7.3	Classify cause of joint pain based on the pathophysiology	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM7.4	Develop a systematic clinical approach to joint pain based on the pathophysiology	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics
IM7.5	Describe and discriminate acute, subacute and chronic causes of joint pain	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM7.6	Discriminate, describe and discuss arthralgia from arthritis and mechanical from inflammatory causes of joint pain	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedic s
IM7.7	Discriminate, describe and discuss distinguishing articular from periarticular complaints	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedic s
IM7.8	Determine the potential causes of joint pain based on the presenting features of joint involvement	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedic s
IM7.9	Describe the common signs and symptoms of articular and periarticular diseases	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedic s
IM7.10	Describe the systemic manifestations of rheumatologic disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM7.11	Elicit document and present a medical history that will differentiate the aetiologies of disease	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM7.12	Perform a systematic examination of all joints, muscle and skin that will establish the diagnosis and severity of disease	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			Orthopedic s

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM7.13	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	K/S	KH	Y	Bedside clinic, Small group discussion	Skill assessment/ Written			
IM7.14	Describe the appropriate diagnostic work up based on the presumed aetiology	K	KH	Y	Bedside clinic, Small group discussion	Skill assessment/ Written			
IM7.15	Enumerate the indications for and interpret the results of CBC, anti CCP, RA, ANA, DNA and other tests of autoimmunity	K	SH	Y	Bedside clinic, Small group discussion	Skill assessment/ Written		Pathology	
IM7.16	Enumerate the indications for arthrocentesis	K	K	Y	Small group discussion, Lecture	Written/ Viva voce			Orthopedics
IM7.17	Enumerate the indications and interpret plain radiographs of joints	K	SH	Y	Bedside clinic, Small group discussion	Skill assessment/ Written		Radiodiagnosis	Orthopedics

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM7.18	Communicate diagnosis, treatment plan and subsequent follow up plan to patients	C	SH	Y	DOAP session	Skill assessment/ Written			
IM7.19	Develop an appropriate treatment plan for patients with rheumatologic diseases	K	KH	Y	Bedside clinic, Small group discussion	Skill assessment/ Written			
IM7.20	Select, prescribe and communicate appropriate medications for relief of joint pain	K/C	SH	Y	DOAP session	Skill assessment/ Written		Pharmacology	Orthopedics
IM7.21	Select, prescribe and communicate preventive therapy for crystalline arthropathies	K/C	SH	Y	DOAP session	Skill assessment/ Written		Pharmacology	
IM7.22	Select, prescribe and communicate treatment option for systemic rheumatologic conditions	K/C	SH	Y	DOAP session	Skill assessment/ Written		Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM7.23	Describe the basis for biologic and disease modifying therapy in rheumatologic diseases	K	KH	Y	Bedside clinic, Small group discussion	Skill assessment/ Written		Pharmacology	
IM7.24	Communicate and incorporate patient preferences in the choice of therapy	C/A	SH	Y	DOAP session	Skill assessment		AETCOM	
IM7.25	Develop and communicate appropriate follow up and monitoring plans for patients with rheumatologic conditions	C	SH	Y	DOAP session	Skill assessment			
IM7.26	Demonstrate an understanding of the impact of rheumatologic conditions on quality of life, well being, work and family	A	SH	Y	DOAP session	Skill assessment			
IM7.27	Determine the need for specialist consultation	K	K	Y	Small group discussion, Lecture	Viva voce			
Topic: Hypertension, Number of competencies: (20), Number of procedures that require certification: (NIL)									
IM8.1	Describe and discuss the epidemiology, aetiology and the prevalence of primary and secondary hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM8.2	Describe and discuss the pathophysiology of hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
IM8.3	Describe and discuss the genetic basis of hypertension	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM8.4	Define and classify hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM8.5	Describe and discuss the differences between primary and secondary hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM8.6	Define, describe and discuss and recognise hypertensive urgency and emergency	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM8.7	Describe and discuss the clinical manifestations of the various aetiologies of secondary causes of hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM8.8	Describe, discuss and identify target organ damage due to hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	K	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM8.10	Perform a systematic examination that includes : an accurate measurement of blood pressure, fundus examination, examination of vasculature and heart	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM8.11	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM8.12	Describe the appropriate diagnostic work up based on the presumed aetiology	K	KH	Y	Small group discussion	Skill assessment/ Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM8.13	Enumerate the indications for and interpret the results of : CBC, Urine routine, BUN, Cr, Electrolytes, Uric acid, ECG	K	KH	Y	Small group discussion	Skill assessment/ Written/ Viva voce			
IM8.14	Develop an appropriate treatment plan for essential hypertension	K	KH	Y	Small group discussion	Written/ Viva voce		Pharmacology	
IM8.15	Recognise, prioritise and manage hypertensive emergencies	S	SH	Y	DOAP session	Skill assessment/ Written		Pharmacology	
IM8.16	Develop and communicate to the patient lifestyle modification including weight reduction, moderation of alcohol intake, physical activity and sodium intake	C	SH	Y	DOAP session	Skill assessment			
IM8.17	Perform and interpret a 12 lead ECG	S	P	Y	DOAP session	documentation in log book/ skills station			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM8.18	Incorporate patient preferences in the management of HTN	A/C	SH	Y	DOAP session	Skill assessment			
IM8.19	Demonstrate understanding of the impact of Hypertension on quality of life, well being, work and family	A	SH	Y	Bedside clinic, DOAP session	observation by faculty			
IM8.20	Determine the need for specialist consultation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Anemia, Number of competencies: (21), Number of procedures that require certification : (NIL)									
IM9.1	Define, describe and classify anemia based on red blood cell size and reticulocyte count	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM9.2	Describe and discuss the morphological characteristics, aetiology and prevalence of each of the causes of anemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
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	S	SH	Y	Bed side clinic, DOAP session	Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM9.5	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Written		Pathology	
IM9.6	Describe the appropriate diagnostic work up based on the presumed aetiology	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Written		Pathology	
IM9.7	Describe and discuss the meaning and utility of various components of the hemogram	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Pathology	
IM9.8	Describe and discuss the various tests for iron deficiency	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM9.9	Order and interpret tests for anemia including hemogram, red cell indices, reticulocyte count, iron studies, B12 and folate	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Written		Pathology	
IM9.10	Describe, perform and interpret a peripheral smear and stool occult blood	S	SH	P	Bedside clinic, DOAP session	Skill assessment/ Written		Pathology	
IM9.11	Describe the indications and interpret the results of a bone marrow aspirations and biopsy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Pathology	
IM9.12	Describe, develop a diagnostic plan to determine the aetiology of anemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Pathology	
IM9.13	Prescribe replacement therapy with iron, B12, folate	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Written		Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM9.14	Describe the national programs for anemia prevention	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology, Community Medicine	
IM9.15	Communicate the diagnosis and the treatment appropriately to patients	C	SH	Y	DOAP session	Skill assessment			
IM9.16	Incorporate patient preferences in the management of anemia	C	SH	Y	DOAP session	Skill assessment			
IM9.17	Describe the indications for blood transfusion and the appropriate use of blood components	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Pathology	
IM9.18	Describe the precautions required necessary when performing a blood transfusion	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM9.19	Assist in a blood transfusion	S	SH	Y	Bedside clinic	document in log book			
IM9.20	Communicate and counsel patients with methods to prevent nutritional anemia	C	SH	Y	DOAP session	Skill assessment			
IM9.21	Determine the need for specialist consultation	K	KH	Y	Lecture, Small group discussion	Written			
Topic: Acute Kidney Injury and Chronic renal failure, Number of competencies: (31), Number of procedures that require certification: (NIL)									
IM10.1	Define, describe and differentiate between acute and chronic renal failure	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM10.2	Classify, describe and differentiate the pathophysiologic causes of acute renal failure	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM10.3	Describe the pathophysiology and causes of pre renal ARF, renal and post renal ARF	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM10.4	Describe the evolution, natural history and treatment of ARF	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM10.5	Describe and discuss the aetiology of CRF	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM10.6	Stage Chronic Kidney Disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM10.7	Describe and discuss the pathophysiology and clinical findings of uraemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM10.8	Classify, describe and discuss the significance of proteinuria in CKD	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM10.9	Describe and discuss the pathophysiology of anemia and hyperparathyroidism in CKD	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM10.10	Describe and discuss the association between CKD glycemia and hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM10.11	Describe and discuss the relationship between CAD risk factors and CKD and in dialysis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM10.14	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	K	KH	Y	DOAP session, Small group discussion	Skill assessment/ Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM10.15	Describe the appropriate diagnostic work up based on the presumed aetiology	K	SH	Y	DOAP session, Small group discussion	Skill assessment/ Written/ Viva voce			
IM10.16	Enumerate the indications for and interpret the results of : renal function tests, calcium, phosphorus, PTH, urine electrolytes, osmolality, Anion gap	K	KH	Y	DOAP session, Small group discussion	Skill assessment/ Written/ Viva voce		Pathology	
IM10.17	Describe and calculate indices of renal function based on available laboratories including FENa (Fractional Excretion of Sodium) and CrCl (Creatinine Clearance)	S	SH	Y	DOAP session, Small group discussion	Skill assessment/ Written/ Viva voce		Pathology	
IM10.18	Identify the ECG findings in hyperkalemia	S	SH	Y	DOAP session, Small group discussion	Skill assessment/ Written/ Viva voce			
IM10.19	Enumerate the indications and describe the findings in renal ultrasound	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Radiodiagnosis	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM10.20	Describe and discuss the indications to perform arterial blood gas analysis: interpret the data	S	P	Y	DOAP session	documentation in log book			
IM10.21	Describe and discuss the indications for and insert a peripheral intravenous catheter	S	P	Y	DOAP session, Bedside clinic	documentation in logbook			
IM10.22	Describe and discuss the indications, demonstrate in a model and assist in the insertion of a central venous or a dialysis catheter	S	SH	N	DOAP session	Skill assessment with model			
IM10.23	Communicate diagnosis treatment plan and subsequent follow up plan to patients	C	SH	Y	DOAP session	Skill assessment			
IM10.24	Counsel patients on a renal diet	K	SH	Y	DOAP session	Skill assessment			
IM10.25	Identify and describe the priorities in the management of ARF including diet, volume management, alteration in doses of drugs, monitoring and indications for dialysis	K/C	KH	Y	Lecture, Small group discussion	Written / Viva voce		Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM10.26	Describe and discuss supportive therapy in CKD including diet, anti hypertensives, glycemic therapy, dyslipidemia, anemia, hyperkalemia, hyperphosphatemia and secondary hyperparathyroidism	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM10.27	Describe and discuss the indications for renal dialysis	C/A	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM10.28	Describe and discuss the indications for renal replacement therapy	C	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM10.29	Describe discuss and communicate the ethical and legal issues involved in renal replacement therapy	C/A	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM10.30	Recognise the impact of CKD on patient's quality of life well being work and family	A	K	Y	Lecture, Small group discussion, Bedside clinic	observatio n by faculty			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM10.31	Incorporate patient preferences in to the care of CKD	A/C	KH	Y	Lecture, Small group discussion, Bedside clinic	observatio n by faculty			
Topic: Diabetes Mellitus, Number of competencies: (24), Number of procedures that require certification : (02)									
IM11.1	Define and classify diabetes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM11.2	Describe and discuss the epidemiology and pathogenesis and risk factors and clinical evolution of type 1 diabetes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM11.3	Describe and discuss the epidemiology and pathogenesis and risk factors economic impact and clinical evolution of type 2 diabetes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM11.4	Describe and discuss the genetic background and the influence of the environment on diabetes	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM11.5	Describe and discuss the pathogenesis and temporal evolution of microvascular and macrovascular complications of diabetes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM11.6	Describe and discuss the pathogenesis and precipitating factors, recognition and management of diabetic emergencies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
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)	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM11.9	Describe and recognise the clinical features of patients who present with a diabetic emergency	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce			
IM11.10	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce			
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pathology	
IM11.12	Perform and interpret a capillary blood glucose test	S	P	Y	Bedside clinic, DOAP session	Skill assessment	2	Pathology, Biochemistry	
IM11.13	Perform and interpret a urinary ketone estimation with a dipstick	S	P	Y	Bedside clinic, DOAP session	Skill assessment	2	Pathology, Biochemistry	
IM11.14	Recognise the presentation of hypoglycaemia and outline the principles on its therapy	K	KH	Y	Small Group discussion, Lecture	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM11.15	Recognise the presentation of diabetic emergencies and outline the principles of therapy	K	KH	Y	Small Group discussion, Lecture	Written/ Viva voce			
IM11.16	Discuss and describe the pharmacologic therapies for diabetes their indications, contraindications, adverse reactions and interactions	K	KH	Y	Small Group discussion, Lecture	Written/ Viva voce		Pharmacology	
IM11.17	Outline a therapeutic approach to therapy of T2Diabetes based on presentation, severity and complications in a cost effective manner	K	KH	Y	Small Group discussion, Lecture	Written/ Viva voce			
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
IM11.19	Demonstrate and counsel patients on the correct technique to administer insulin	S/C	SH	Y	DOAP session	Skill assessment		Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM11.20	Demonstrate to and counsel patients on the correct technique of self monitoring of blood glucoses	S/C	SH	Y	DOAP session	Skill assessment			
IM11.21	Recognise the importance of patient preference while selecting therapy for diabetes	A	KH	Y	DOAP session	faculty observation			
IM11.22	Enumerate the causes of hypoglycaemia and describe the counter hormone response and the initial approach and treatment	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
IM11.23	Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of diabetic ketoacidosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM11.24	Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of Hyperosmolar non ketotic state	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Thyroid dysfunction, Number of competencies: (15), Number of procedures that require certification : (NIL)									
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	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
IM12.2	Describe and discuss the genetic basis of some forms of thyroid dysfunction	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
IM12.3	Describe and discuss the physiology of the hypothalamopituitary - thyroid axis, principles of thyroid function testing and alterations in physiologic function	K	K	Y	Lecture, Small group discussion	Short notes		Pathology, Physiology	
IM12.4	Describe and discuss the principles of radio iodine uptake in the diagnosis of thyroid disorders	K	KH	Y	Lecture, Small group discussion	Short notes/ Viva voce			
IM12.5	Elicit document and present an appropriate history that will establish the diagnosis cause of thyroid dysfunction and its severity	S	SH	Y	Bedside clinic	Skill assessment/ Short case			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	SH	Y	Bed side clinic, DOAP session	Skill assessment			General Surgery
IM12.7	Demonstrate the correct technique to palpate the thyroid	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Surgery
IM12.8	Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis	K	KH	Y	Bedside clinic, small group discussion	Short case			General Surgery
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Surgery
IM12.10	Identify atrial fibrillation, pericardial effusion and bradycardia on ECG	S	SH	Y	Bedside clinic, lab	Skill assessment			General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM12.11	Interpret thyroid function tests in hypo and hyperthyroidism	S	SH	Y	Bedside clinic, lab	Skill assessment			General Surgery
IM12.12	Describe and discuss the iodisation programs of the government of India	K	KH	Y	Lecture, Bedside clinic	Short note		Community Medicine	
IM12.13	Describe the pharmacology, indications, adverse reaction, interactions of thyroxine and antithyroid drugs	K	KH	Y	Lecture, Small group discussion	Viva voce/ Short note		Pharmacology	General Surgery
IM12.14	Write and communicate to the patient appropriately a prescription for thyroxine based on age, sex, and clinical and biochemical status	S/C	SH	Y	Skill assessment	Skill assessment		Pharmacology	
IM12.15	Describe and discuss the indications of thionamide therapy, radio iodine therapy and surgery in the management of thyrotoxicosis	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Pharmacology	General Surgery
Topic: Common malignancies, Number of competencies: (19), Number of procedures that require certification : (NIL)									
IM13.1	Describe the clinical epidemiology and inherited & modifiable risk factors for common malignancies in India	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology, Biochemistry	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM13.2	Describe the genetic basis of selected cancers	K	K	N	Lecture, Small group discussion	Short note/ Viva voce		Pathology	
IM13.3	Describe the relationship between infection and cancers	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology, Microbiolo gy	
IM13.4	Describe the natural history, presentation, course, complications and cause of death for common cancers	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	
IM13.5	Describe the common issues encountered in patients at the end of life and principles of management	K	K	N	Lecture, Small group discussion	Short note/ Viva voce			
IM13.6	Describe and distinguish the difference between curative and palliative care in patients with cancer	K	K	N	Lecture, Small group discussion	Short note/ Viva voce		Pharmacol ogy	
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	S	K	Y	Bedside clinic	Skill assessme nt/ Short case			General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	SH	Y	Bedside clinic	Skill assessment/ short case			General Surgery
IM13.9	Demonstrate in a mannequin the correct technique for performing breast exam, rectal examination and cervical examination and pap smear	S	K	Y	Bedside clinic	Skill assessment/ Short case		Human Anatomy	General Surgery
IM13.10	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	S	K	Y	Bedside clinic	Skill assessment/ Short case			General Surgery
IM13.11	Order and interpret diagnostic testing based on the clinical diagnosis including CBC and stool occult blood and prostate specific antigen	S	K	Y	Bedside clinic	Skill assessment/ Short case			
IM13.12	Describe the indications and interpret the results of Chest X Ray, mammogram, skin and tissue biopsies and tumor markers used in common cancers	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Radiodiagnosis	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM13.13	Describe and assess pain and suffering objectively in a patient with cancer	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Pharmacology	General Surgery
IM13.14	Describe the indications for surgery, radiation and chemotherapy for common malignancies	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Pharmacology	General Surgery
IM13.15	Describe the need, tests involved, their utility in the prevention of common malignancies	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Pathology	
IM13.16	Demonstrate an understanding and needs and preferences of patients when choosing curative and palliative therapy	A/C	KH	Y	Bedside clinic, small group discussion	Short note/ Viva voce		AETCOM	
IM13.17	Describe and enumerate the indications, use, side effects of narcotics in pain alleviation in patients with cancer	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Pharmacology	Anesthesiology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM13.18	Describe and discuss the ethical and the medico legal issues involved in end of life care	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		AETCOM	
IM13.19	Describe the therapies used in alleviating suffering in patients at the end of life	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		AETCOM	
Topic: Obesity, Number of competencies: (15), Number of procedures that require certification: (NIL)									
IM14.1	Define and measure obesity as it relates to the Indian population	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			
IM14.2	Describe and discuss the aetiology of obesity including modifiable and non-modifiable risk factors and secondary causes	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	
IM14.3	Describe and discuss the monogenic forms of obesity	K	K	N	Lecture, Small group discussion	Short note/ Viva voce		Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM14.4	Describe and discuss the impact of environmental factors including eating habits, food, work, environment and physical activity on the incidence of obesity	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology, Communit y Medicine	
IM14.5	Describe and discuss the natural history of obesity and its complications	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	
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	S	SH	Y	Bedside clinic, Skills lab	Skill assessme nt			
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	S	SH	Y	Bedside clinic, Skills lab	Skill assessme nt			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM14.8	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	S	SH	Y	Bedside clinic, Skills lab	Skill assessment/ Short note/ Viva voce			
IM14.9	Order and interpret diagnostic tests based on the clinical diagnosis including blood glucose, lipids, thyroid function tests etc.	S	SH	Y	Bedside clinic, Skills lab, Small group discussion	Skill assessment/ Short note/ Viva voce			
IM14.10	Describe the indications and interpret the results of tests for secondary causes of obesity	K	KH	Y	Bedside clinic, Skills lab, Small group discussion	Skill assessment/ Short note/ Viva voce			
IM14.11	Communicate and counsel patient on behavioural, dietary and lifestyle modifications	C	SH	Y	Bedside clinic, Skills lab	Skill assessment			
IM14.12	Demonstrate an understanding of patient's inability to adhere to lifestyle instructions and counsel them in a non - judgemental way	A/C	SH	Y	Bedside clinic, Skills lab	Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM14.13	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for obesity	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pharmacology	
IM14.14	Describe and enumerate the indications and side effects of bariatric surgery	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			General Surgery
IM14.15	Describe and enumerate and educate patients, health care workers and the public on measures to prevent obesity and promote a healthy lifestyle	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			
Topic: GI bleeding, Number of competencies: (18), Number of procedures that require certification : (NIL)									
IM15.1	Enumerate, describe and discuss the aetiology of upper and lower GI bleeding	K	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	General Surgery
IM15.2	Enumerate, describe and discuss the evaluation and steps involved in stabilizing a patient who presents with acute volume loss and GI bleed	S	SH	Y	DOAP session, Small group discussion, Lecture	Written/ Viva voce/ Skill assessment		Pathology	General Surgery
IM15.3	Describe and discuss the physiologic effects of acute blood and volume loss	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology, Physiology	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	SH	Y	Bedside clinic	Skill assessment			General Surgery
IM15.5	Perform, demonstrate and document a physical examination based on the history that includes general examination, volume assessment and appropriate abdominal examination	S	SH	Y	Bedside clinic, Skills lab	Skill assessment			General Surgery
IM15.6	Distinguish between upper and lower gastrointestinal bleeding based on the clinical features	S	KH	Y	Lecture, Small group discussion	Short note/ Viva voce			General Surgery
IM15.7	Demonstrate the correct technique to perform an anal and rectal examination in a mannequin or equivalent	S	SH	Y	DOAP session	Skill assessment			General Surgery
IM15.8	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	S	SH	Y	Bedside clinic, Skills lab	Skill assessment/ Short note/ Viva voce			General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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.	S	SH	Y	Bedside clinic, DOAP session, Small group discussion	Skill assessment/ Short note/ Viva voce		Pathology	General Surgery
IM15.10	Enumerate the indications for endoscopy, colonoscopy and other imaging procedures in the investigation of Upper GI bleeding	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Surgery
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	S	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	General Surgery
IM15.12	Enumerate the indications for whole blood, component and platelet transfusion and describe the clinical features and management of a mismatched transfusion	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM15.13	Observe cross matching and blood / blood component transfusion	S	SH	Y	Bedside clinic	Short note/ Viva voce/ Skill assessment		Pathology	General Surgery
IM15.14	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of pressors used in the treatment of Upper GI bleed	K	K	Y	Lecture, Small group discussion	Short note/Viva voce		Pharmacology	General Surgery
IM15.15	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of acid peptic disease including Helicobacter pylori	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pharmacology, Microbiology	General Surgery
IM15.16	Enumerate the indications for endoscopic interventions and Surgery	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			General Surgery
IM15.17	Determine appropriate level of specialist consultation	S	K	Y	Small group discussion				General Surgery
IM15.18	Counsel the family and patient in an empathetic non-judgmental manner on the diagnosis and therapeutic options	S	SH	Y	DOAP session	Skill assessment			General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Diarrheal disorder, Number of competencies: (17), Number of procedures that require certification : (NIL)									
IM16.1	Describe and discuss the aetiology of acute and chronic diarrhea including infectious and non infectious causes	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Microbiolo gy	
IM16.2	Describe and discuss the acute systemic consequences of diarrhea including its impact on fluid balance	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			
IM16.3	Describe and discuss the chronic effects of diarrhea including malabsorption	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			
IM16.4	Elicit and document and present an appropriate history that includes the natural history, dietary history, travel , sexual history and other concomitant illnesses	S	SH	Y	Bedside clinic, Skills lab	Skill assessme nt		Microbiolo gy, Pathology	
IM16.5	Perform, document and demonstrate a physical examination based on the history that includes general examination, including an appropriate abdominal examination	S	SH	Y	Bedside clinic, Skills lab	Skill assessme nt			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM16.6	Distinguish between diarrhea and dysentery based on clinical features	S	KH	Y	Lecture, Small group discussion	Short note/ Viva voce			
IM16.7	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	S	SH	Y	Bedside clinic, Skills lab	Skill assessment/ short note/ Viva voce			
IM16.8	Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, and stool examination	S	SH	Y	Bedside clinic, Skills lab, Small group discussion	Skill assessment/ Short note/ Viva voce		Microbiology, Pathology	
IM16.9	Identify common parasitic causes of diarrhea under the microscope in a stool specimen	S	SH	Y	DOAP session	Skill assessment		Microbiology	
IM16.10	Identify vibrio cholera in a hanging drop specimen	S	SH	Y	DOAP session	Skill Assessment		Microbiology	
IM16.11	Enumerate the indications for stool cultures and blood cultures in patients with acute diarrhea	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM16.12	Enumerate and discuss the indications for further investigations including antibodies, colonoscopy, diagnostic imaging and biopsy in the diagnosis of chronic diarrhea	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	General Surgery
IM16.13	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for parasitic causes of diarrhea	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pharmacol ogy, Microbiolo gy	
IM16.14	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for bacterial and viral diarrhea	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pharmacol ogy, Microbiolo gy	
IM16.15	Distinguish based on the clinical presentation Crohn's disease from Ulcerative Colitis	S	SH	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	General Surgery
IM16.16	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy including immunotherapy	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pharmacol ogy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM16.17	Describe and enumerate the indications for surgery in inflammatory bowel disease	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			General Surgery
Topic: Headache, Number of competencies: (14), Number of procedures that require certification : (NIL)									
IM17.1	Define and classify headache and describe the presenting features, precipitating factors, aggravating and relieving factors of various kinds of headache	K	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Human Anatomy	
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	S	SH	Y	Bedside clinic, Small group discussion	Bedside clinic/ Skill assessment			
IM17.3	Classify migraine and describe the distinguishing features between classical and non classical forms of migraine	K	KH	Y	Bedside clinic, Small group discussion	Bedside clinic/ Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM17.4	Perform and demonstrate a general neurologic examination and a focused examination for signs of intracranial tension including neck signs of meningitis	S	SH	Y	Bedside clinic, Small group discussion	Bedside clinic/ Skill assessment			
IM17.5	Generate document and present a differential diagnosis based on the clinical features, and prioritise the diagnosis based on the presentation	S	SH	Y	Bedside clinic, Small group discussion	Bedside clinic/ skill assessment			
IM17.6	Choose and interpret diagnostic testing based on the clinical diagnosis including imaging	S	SH	Y	Lecture, Small group discussion, Bedside clinic	Skill Assessment			
IM17.7	Enumerate the indications and describe the findings in the CSF in patients with meningitis	K	K	Y	Small group discussion, Bedside clinic	Skill Assessment		Microbiology, Pathology	
IM17.8	Demonstrate in a mannequin or equivalent the correct technique for performing a lumbar puncture	S	SH	Y	DOAP session	Skill assessment		Microbiology, Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM17.9	Interpret the CSF findings when presented with various parameters of CSF fluid analysis	S	SH	Y	Small group discussion, Bedside clinic	Skill assessment		Microbiology, Pathology	
IM17.10	Enumerate the indications for emergency care admission and immediate supportive care in patients with headache	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
IM17.11	Describe the indications, pharmacology, dose, side effects of abortive therapy in migraine	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
IM17.12	Describe the indications, pharmacology, dose, side effects of prophylactic therapy in migraine	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
IM17.13	Describe the pharmacology, dose, adverse reactions and regimens of drugs used in the treatment of bacterial, tubercular and viral meningitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
IM17.14	Counsel patients with migraine and tension headache on lifestyle changes and need for prophylactic therapy	A/C	SH	N	DOAP session	Skill Assessment		Pharmacology	Psychiatry

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Cerebrovascular accident, Number of competencies: (17), Number of procedures that require certification : (NIL)									
IM18.1	Describe the functional and the vascular anatomy of the brain	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
IM18.2	Classify cerebrovascular accidents and describe the aetiology, predisposing genetic and risk factors pathogenesis of hemorrhagic and non hemorrhagic stroke	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
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	S	SH	Y	Bedside clinic	Skill assessment		Pathology	
IM18.4	Identify the nature of the cerebrovascular accident based on the temporal evolution and resolution of the illness	K	KH	Y	Bedside clinic, Small group discussion	Skill Assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM18.5	Perform, demonstrate & document physical examination that includes general and a detailed neurologic examination as appropriate, based on the history	S	SH	Y	Bedside clinic, DOAP session	Skill Assessment			
IM18.6	Distinguish the lesion based on upper vs lower motor neuron, side, site and most probable nature of the lesion	K/S	SH	Y	Bedside clinic, DOAP session	Skill Assessment		Physiology	
IM18.7	Describe the clinical features and distinguish, based on clinical examination, the various disorders of speech	K/S	SH	N	Bedside clinic, DOAP session	Skill Assessment		Physiology	
IM18.8	Describe and distinguish, based on the clinical presentation, the types of bladder dysfunction seen in CNS disease	K	KH	Y	Small group discussion, Bedside clinic	Written/ Viva voce		Physiology	
IM18.9	Choose and interpret the appropriate diagnostic and imaging test that will delineate the anatomy and underlying cause of the lesion	S	KH	Y	Bedside clinic, DOAP session, Small group discussion	Written/ Viva voce/ Skill assessment		Radiodiagnosis	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM18.10	Choose and interpret the appropriate diagnostic testing in young patients with a cerebrovascular accident (CVA)	S	SH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM18.11	Describe the initial supportive management of a patient presenting with a cerebrovascular accident (CVA)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM18.12	Enumerate the indications for and describe acute therapy of non hemorrhagic stroke including the use of thrombolytic agents	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM18.13	Enumerate the indications for and describe the role of anti platelet agents in non hemorrhagic stroke	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM18.14	Describe the initial management of a hemorrhagic stroke	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM18.15	Enumerate the indications for surgery in a hemorrhagic stroke	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM18.16	Enumerate the indications describe and observe the multidisciplinary rehabilitation of patients with a CVA	S	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Physical Medicine & Rehabilitati on
IM18.17	Counsel patient and family about the diagnosis and therapy in an empathetic manner	A/C	SH	Y	DOAP session	Skill assessme nt			
Topic: Movement disorders Number of competencies: (09) Number of procedures that require certification : (NIL)									
IM19.1	Describe the functional anatomy of the locomotor system of the brain	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy, Physiology	
IM19.2	Classify movement disorders of the brain based on distribution, rhythm, repetition, exacerbating and relieving factors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
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	S	SH	Y	Bedside clinic	Skill assessme nt			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM19.4	Perform, demonstrate and document a physical examination that includes a general examination and a detailed neurologic examination using standard movement rating scales	S	SH	Y	Bedside clinic	Skill assessment			
IM19.5	Generate document and present a differential diagnosis and prioritise based on the history and physical examination	S	SH	Y	Bedside clinic	Skill assessment			
IM19.6	Make a clinical diagnosis regarding on the anatomical location, nature and cause of the lesion based on the clinical presentation and findings	S	SH	Y	Bedside clinic	Skill assessment			
IM19.7	Choose and interpret diagnostic and imaging tests in the diagnosis of movement disorders	S	SH	Y	Bedside clinic, Small group session	Skill assessment/ Written/ Viva voce		Radiodiagnosis	
IM19.8	Discuss and describe the pharmacology, dose, side effects and interactions used in the drug therapy of Parkinson's syndrome	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM19.9	Enumerate the indications for use of surgery and botulinum toxin in the treatment of movement disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacol ogy	General Surgery
Topic: Envenomation Number of competencies: (09) Number of procedures that require certification : (NIL)									
IM20.1	Enumerate the local poisonous snakes and describe the distinguishing marks of each	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Forensic Medicine, Pharmacol ogy	
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	S	SH	Y	DOAP session	Skill assessme nt/ Written/ Viva voce		Forensic Medicine	
IM20.3	Describe the initial approach to the stabilisation of the patient who presents with snake bite	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Forensic Medicine	
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessme nt		Forensic Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM20.5	Perform a systematic examination, document and present a physical examination that includes general examination, local examination, appropriate cardiac and neurologic examination	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM20.6	Choose and interpret the appropriate diagnostic testing in patients with snake bites	S	SH	Y	Small group discussion	Written/ Viva voce			
IM20.7	Enumerate the indications and describe the pharmacology, dose, adverse reactions, hypersensitivity reactions of anti snake venom	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
IM20.8	Describe the diagnosis, initial approach stabilisation and therapy of scorpion envenomation	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
IM20.9	Describe the diagnosis initial approach stabilisation and therapy of bee sting allergy	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Poisoning, Number of competencies: (08), Number of procedures that require certification : (NIL)									
IM21.1	Describe the initial approach to the stabilisation of the patient who presents with poisoning	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacol ogy	
IM21.2	Enumerate the common plant poisons seen in your area and describe their toxicology, clinical features, prognosis and specific approach to detoxification	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Forensic Medicine, Pharmacol ogy	
IM21.3	Enumerate the common corrosives used in your area and describe their toxicology, clinical features, prognosis and approach to therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Forensic Medicine, Pharmacol ogy	
IM21.4	Enumerate the commonly observed drug overdose in your area and describe their toxicology, clinical features, prognosis and approach to therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Forensic Medicine, Pharmacol ogy	
IM21.5	Observe and describe the functions and role of a poison center in suspected poisoning	S	KH	Y	DOAP session	document in log book		Forensic Medicine, Pharmacol ogy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		Forensic Medicine, Pharmacol ogy	
IM21.7	Counsel family members of a patient with suspected poisoning about the clinical and medico legal aspects with empathy	A/C	SH	Y	DOAP session	Skill assessment		Forensic Medicine, Pharmacol ogy	
IM21.8	Enumerate the indications for psychiatric consultation and describe the precautions to be taken in a patient with suspected suicidal ideation / gesture	K	KH	Y	DOAP session	Skill assessment		Forensic Medicine, Psychiatry	
Topic: Mineral, Fluid Electrolyte and Acid base Disorder, Number of competencies: (13), Number of procedures that require certification : (NIL)									
IM22.1	Enumerate the causes of hypercalcemia and distinguish the features of PTH vs non PTH mediated hypercalcemia	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
IM22.2	Describe the aetiology, clinical manifestations, diagnosis and clinical approach to primary hyperparathyroidism	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM22.3	Describe the approach to the management of hypercalcemia	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
IM22.4	Enumerate the components and describe the genetic basis of the multiple endocrine neoplasia syndrome	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
IM22.5	Enumerate the causes and describe the clinical features and the correct approach to the diagnosis and management of the patient with hyponatremia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM22.9	Enumerate the causes and describe the clinical and laboratory features of metabolic acidosis	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Physiology	
IM22.10	Enumerate the causes of describe the clinical and laboratory features of metabolic alkalosis	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Physiology	
IM22.11	Enumerate the causes and describe the clinical and laboratory features of respiratory acidosis	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Physiology	
IM22.12	Enumerate the causes and describe the clinical and laboratory features of respiratory alkalosis	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Physiology	
IM22.13	Identify the underlying acid based disorder based on an ABG report and clinical situation	S	KH	N	Lecture, Small group discussion	Written/ Viva voce		Physiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Nutritional and Vitamin Deficiencies Number of competencies: (05), Number of procedures that require certification: (NIL)									
IM23.1	Discuss and describe the methods of nutritional assessment in an adult and calculation of caloric requirements during illnesses	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology , Biochemist ry	Pediatrics
IM23.2	Discuss and describe the causes and consequences of protein caloric malnutrition in the hospital	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology , Biochemist ry	Pediatrics
IM23.3	Discuss and describe the aetiology, causes, clinical manifestations, complications, diagnosis and management of common vitamin deficiencies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology , Biochemist ry	Pediatrics
IM23.4	Enumerate the indications for enteral and parenteral nutrition in critically ill patients	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology , Biochemist ry	Pediatrics
IM23.5	Counsel and communicate to patients in a simulated environment with illness on an appropriate balanced diet	S	SH	Y	DOAP session	Skill assessme nt			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Geriatrics Number of competencies: (22), Number of procedures that require certification : (NIL)									
IM24.1	Describe and discuss the epidemiology, pathogenesis, clinical evolution, presentation and course of common diseases in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM24.2	Perform multidimensional geriatric assessment that includes medical, psycho-social and functional components	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Psychiatry	
IM24.3	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of acute confusional states	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM24.4	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vascular events in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM24.5	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of depression in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			AETCOM
IM24.7	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of personality changes in the elderly	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM24.8	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of osteoporosis in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM24.9	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of CVA in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM24.10	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of COPD in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Respirator y Medicine
IM24.11	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Anesthesio -logy, General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM24.12	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of degenerative joint disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedic s
IM24.13	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of falls in the elderly	K	KH	Y	Lecture, Small group discussion	Written / Viva voce			Orthopedic s , Physical Medicine & Rehabilita- tion
IM24.14	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of common fractures in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedic s

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Ophthalmology
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics, Physical Medicine & Rehabilitation
IM24.17	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			ENT
IM24.18	Describe the impact of the demographic changes in ageing on the population	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM24.19	Enumerate and describe the social problems in the elderly including isolation, abuse, change in family structure and their impact on health.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
IM24.20	Enumerate and describe social interventions in the care of elderly including domiciliary discussion services, rehabilitation facilities, old age homes and state interventions	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
IM24.21	Enumerate and describe ethical issues in the care of the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			AETCOM
IM24.22	Describe and discuss the aetiopathogenesis, clinical presentation, complications, assessment and management of nutritional disorders in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology , Biochemist ry	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Miscellaneous Infections, Number of competencies: (13), Number of procedures that require certification : (NIL)									
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)	K	K	Y	Lecture, Small group discussion	Written		Microbiology, Community Medicine	
IM25.2	Discuss and describe the common causes, pathophysiology and manifestations of these diseases	K	K	Y	Lecture, Small group discussion	Written		Microbiology, Community Medicine	
IM25.3	Describe and discuss the pathophysiology and manifestations of these diseases	K	KH	Y	Lecture, Small group discussion	Written		Microbiology	
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Community Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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)	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM25.6	Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes	K	SH	Y	Bedside clinic, DOAP session	Written/ Viva voce			
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	K	SH	Y	Bedside clinic, Skill assessment	Skill assessment		Pathology, Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM25.8	Enumerate the indications for use of newer techniques in the diagnosis of these infections	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			
IM25.9	Assist in the collection of blood and other specimen cultures	S	SH	Y	DOAP session	Log book document ation		Microbiolo gy	
IM25.10	Develop and present an appropriate diagnostic plan based on the clinical presentation, most likely diagnosis in a prioritised and cost effective manner	K	KH	Y	Bedside clinic, Skill assessment	Skill assesme nt			
IM25.11	Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis	C	SH	Y	DOAP session	Skill assesme nt		Microbiolo gy, Pharmacol ogy	
IM25.12	Communicate to the patient and family the diagnosis and treatment of identified infection	C	SH	Y	DOAP session	Skill assesme nt		AETCOM	
IM25.13	Counsel the patient and family on prevention of various infections due to environmental issues	C	SH	Y	DOAP session	Skill assesme nt		Communit y Medicine, General Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: The role of the physician in the community, Number of competencies : (49), Number of procedures that require certification : (NIL)									
IM26.1	Enumerate and describe professional qualities and roles of a physician	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.2	Describe and discuss the commitment to lifelong learning as an important part of physician growth	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.3	Describe and discuss the role of non maleficence as a guiding principle in patient care	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.4	Describe and discuss the role of autonomy and shared responsibility as a guiding principle in patient care	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.5	Describe and discuss the role of beneficence of a guiding principle in patient care	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.6	Describe and discuss the role of a physician in health care system	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.7	Describe and discuss the role of justice as a guiding principle in patient care	K	KH	Y	Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM26.8	Identify discuss medicolegal, socioeconomic and ethical issues as it pertains to organ donation	K	KH	Y	Small group discussion	Written/ Viva voce			
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	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.10	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to confidentiality in patient care	K	KH	Y	Small group discussion	Written/ Viva voce			
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	K	KH	Y	Small group discussion	Written/ Viva voce			
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	K	KH	Y	Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.14	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to research in human subjects	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.15	Identify, discuss and defend, medicolegal, socio-cultural and ethical issues as they pertain to consent for surgical procedures	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.16	Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues as it pertains to the physician patient relationship (including fiduciary duty)	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.17	Identify, discuss physician's role and responsibility to society and the community that she/ he serves	K	KH	Y	Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM26.18	Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues in physician- industry relationships	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.19	Demonstrate ability to work in a team of peers and superiors	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM26.20	Demonstrate ability to communicate to patients in a patient, respectful, non threatening, non judgemental and empathetic manner	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM26.21	Demonstrate respect to patient privacy	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM26.22	Demonstrate ability to maintain confidentiality in patient care	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
IM26.23	Demonstrate a commitment to continued learning	S	SH	Y	Small group discussion	Skill assessment/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM26.24	Demonstrate respect in relationship with patients, fellow team members, superiors and other health care workers	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
IM26.25	Demonstrate responsibility and work ethics while working in the health care team	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
IM26.26	Demonstrate ability to maintain required documentation in health care (including correct use of medical records)	S	SH	Y	Small group discussion	Skill assessment/ Viva voce			
IM26.27	Demonstrate personal grooming that is adequate and appropriate for health care responsibilities	S	SH	Y	Small group discussion	Skill assessment			
IM26.28	Demonstrate adequate knowledge and use of information technology that permits appropriate patient care and continued learning	S	SH	Y	Small group discussion	Skill assessment/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM26.29	Communicate diagnostic and therapeutic options to patient and family in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
IM26.30	Communicate care options to patient and family with a terminal illness in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
IM26.31	Demonstrate awareness of limitations and seeks help and consultations appropriately	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
IM26.32	Demonstrate appropriate respect to colleagues in the profession	S	SH	N	Small group discussion	Skill assessment/ Viva voce			
IM26.33	Demonstrate an understanding of the implications and the appropriate procedures and response to be followed in the event of medical errors	S	SH	N	Small group discussion	Skill assessment/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM26.34	Identify conflicts of interest in patient care and professional relationships and describe the correct response to these conflicts	S	SH	Y	Small group discussion	Skill assessment/ Viva voce			
IM26.35	Demonstrate empathy in patient encounters	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
IM26.36	Demonstrate ability to balance personal and professional priorities	S	SH	N	Small group discussion	Skill assessment/ Viva voce			
IM26.37	Demonstrate ability to manage time appropriately	S	SH	Y	Small group discussion	Skill assessment/ Viva voce			
IM26.38	Demonstrate ability to form and function in appropriate professional networks	S	SH	N	Small group discussion	Skill assessment/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM26.39	Demonstrate ability to pursue and seek career advancement	S	SH	N	Small group discussion	Skill assessment/ Viva voce			
IM26.40	Demonstrate ability to follow risk management and medical error reduction practices where appropriate	S	SH	N	Small group discussion	Skill assessment/ Viva voce			
IM26.41	Demonstrate ability to work in a mentoring relationship with junior colleagues	S	SH	N	Small group discussion	Skill assessment/ Viva voce			
IM26.42	Demonstrate commitment to learning and scholarship	S	SH	N	Small group discussion	Skill assessment/ Viva voce			
IM26.43	Identify, discuss and defend medicolegal, sociocultural, economic and ethical issues as they pertain to in vitro fertilisation donor insemination and surrogate motherhood	K	KH	N	Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM26.44	Identify, discuss and defend medicolegal, socio-cultural professional	K	KH	N	Small group	Written/ Viva voce			
	and ethical issues pertaining to medical negligence				discussion				
IM26.45	Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues pertaining to malpractice	K	KH	N	Small group discussion	Written/ Viva voce			
IM26.46	Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues in dealing with impaired physicians	K	KH	N	Small group discussion	Written/ Viva voce			
IM26.47	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as they pertain to refusal of care including do not resuscitate and withdrawal of life support	K	KH	Y	Small group discussion	Written/ Viva voce			
IM26.48	Demonstrate altruism	S	SH	Y	Small group discussion	Written/ Viva voce			
IM26.49	Administer informed consent and appropriately address patient queries to a patient being enrolled in a research protocol in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication.
 Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column
 F: DOAP session – Demonstrate, Observe, Assess, Perform.
 Column H: If entry is P: indicate how many procedures must be done independently for certification / graduation

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
INTEGRATION									
HUMAN ANATOMY									
AN5.6	Describe the concept of anastomoses and collateral circulation with significance of end-arteries	K	KH	Y	Lecture	Written / Viva voce		General Medicine	Physiology
AN7.5	Describe principles of sensory and motor innervation of muscles	K	KH	N	Lecture	Written		General Medicine	Physiology
AN7.6	Describe concept of loss of innervation of a muscle with its applied anatomy	K	KH	Y	Lecture	Written / Viva voce		General Medicine	
AN20.8	Identify & demonstrate palpation of femoral, popliteal, post tibial, anti-tibial & dorsalis pedis blood vessels in a simulated environment	K/S	SH	Y	Practical, Lecture, Small group discussio n, DOAP session	Viva voce / Skill assessme nt		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
AN20.9	Identify & demonstrate Palpation of vessels (femoral, popliteal, dorsalis pedis, post tibial), Mid inguinal point, Surface projection of : femoral nerve, Saphenous opening, Sciatic, tibial, common peroneal & deep peroneal nerve, great and small saphenous veins	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Viva voce / Skill assessment		General Medicine, General Surgery	
AN22.4	Describe anatomical basis of ischaemic heart disease	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	Physiology
AN22.7	Mention the parts, position and arterial supply of the conducting system of heart	K	KH	Y	Lecture	Written		General Medicine	Physiology
AN24.1	Mention the blood supply, lymphatic drainage and nerve supply of pleura, extent of pleura and describe the pleural recesses and their applied anatomy	K	KH	Y	Practical, Lecture	Written/ Viva voce		General Medicine	Physiology
AN24.2	Identify side, external features and relations of structures which form root of lung & bronchial tree and their clinical correlate	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Medicine	Physiology

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
AN24.3	Describe a bronchopulmonary segment	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	Physiology
AN25.3	Describe fetal circulation and changes occurring at birth	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	Physiology
AN25.4	Describe embryological basis of: 1) atrial septal defect, 2)ventricular septal defect, 3) Fallot's tetralogy & 4) trachea – oesophageal fistula	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics	Physiology
AN25.5	Describe developmental basis of congenital anomalies, transposition of great vessels, dextrocardia, patent ductus arteriosus and coarctation of aorta	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics	Physiology
AN25.7	Identify structures seen on a plain x-ray chest (PA view)	K/S	SH	Y	Practical, DOAP session	Written/ Viva voce		Radiodiag nosis, General Medicine	
AN25.8	Identify and describe in brief a barium swallow	K/S	SH	N	Practical, DOAP session	Written/ Viva voce		Radiodiag nosis, General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
AN25.9	Demonstrate surface marking of lines of pleural reflection, Lung borders and fissures, Trachea, Heart borders, Apex beat & Surface projection of valves of heart	K/S	SH	Y	Practical	Viva voce/ Skill assessment		General Medicine, Pediatrics	Physiology
AN28.7	Explain the anatomical basis of facial nerve palsy	K	KH	Y	Lecture	Written		General Medicine	
AN50.3	Describe lumbar puncture (site, direction of the needle, structures pierced during the lumbar puncture)	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	
AN56.1	Describe & identify various layers of meninges with its extent & modifications	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Medicine	
AN56.2	Describe circulation of CSF with its applied anatomy	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	Physiology
AN57.4	Enumerate ascending & descending tracts at mid thoracic level of spinal cord	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	Physiology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN57.5	Describe anatomical basis of syringomyelia	K	KH	N	Lecture	Written		General Medicine	Physiology
AN58.4	Describe anatomical basis & effects of medial & lateral medullary syndrome	K	KH	N	Lecture	Written		General Medicine	Physiology
AN60.3	Describe anatomical basis of cerebellar dysfunction	K	KH	N	Lecture	Written		General Medicine	Physiology
AN61.3	Describe anatomical basis & effects of Benedict's and Weber's syndrome	K	KH	N	Lecture	Written		General Medicine	Physiology
AN62.2	Describe & demonstrate surfaces, sulci, gyri, poles, & functional areas of cerebral hemisphere	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Medicine	Physiology
AN62.3	Describe the white matter of cerebrum	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	Physiology

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
AN62.5	Describe boundaries, parts, gross relations, major nuclei and connections of dorsal thalamus, hypothalamus, epithalamus, metathalamus and subthalamus	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	Physiology
AN62.6	Describe & identify formation, branches & major areas of distribution of circle of Willis	K/S	SH	Y	Practical, Lecture, Small group discussio n, DOAP session	Written/ Viva voce/ Skill assessme nt		General Medicine	Physiology
AN74.1	Describe the various modes of inheritance with examples	K	KH	Y	Lecture	Written		General Medicine, Pediatrics	
AN74.2	Draw pedigree charts for the various types of inheritance & give examples of diseases of each mode of inheritance	K	KH	Y	Lecture	Written		General Medicine, Pediatrics	
AN74.3	Describe multifactorial inheritance with examples	K	KH	Y	Lecture	Written		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
AN74.4	Describe the genetic basis & clinical features of Achondroplasia, Cystic Fibrosis, Vitamin D resistant rickets, Hemophilia, Duchene's muscular dystrophy & Sickle cell anaemia	K	KH	N	Lecture	Written		General Medicine, Pediatrics	
PHYSIOLOGY									
PY3.12	Explain the gradation of muscular activity	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PY3.13	Describe muscular dystrophy: myopathies	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Human Anatomy
PY4.9	Discuss the physiology aspects of: peptic ulcer, gastrooesophageal reflux disease, vomiting, diarrhoea, constipation, Adynamic ileus, Hirschsprung's disease	S	SH	Y	Lecture, Small group discussio n	Practical/ Viva voce		General Medicine	Biochemist ry

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PY5.5	Describe the physiology of electrocardiogram (E.C.G), its applications and the cardiac axis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
PY5.6	Describe abnormal ECG, arrhythmias, heart block and myocardial Infarction	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Human Anatomy
PY5.10	Describe & discuss regional circulation including microcirculation, lymphatic circulation, coronary, cerebral, capillary, skin, foetal, pulmonary and splanchnic circulation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
PY5.13	Record and interpret normal ECG in a volunteer or simulated environment	S	SH	Y	DOAP sessions	Practical / OSPE / Viva voce		General Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PY5.16	Record Arterial pulse tracing using finger plethysmography in a volunteer or simulated environment	S	SH	N	DOAP sessions, Computer assisted learning methods	Practical / OSPE / Viva voce		General Medicine	
PY7.7	Describe artificial kidney, dialysis and renal transplantation	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		General Medicine	
PY11.14	Demonstrate Basic Life Support in a simulated environment	S	SH	Y	DOAP sessions	OSCE		General Medicine Anaesthesiology	
BIOCHEMISTRY									
BI2.4	Describe and discuss enzyme inhibitors as poisons and drugs, therapeutic enzymes and the clinical utility of various serum enzymes as markers of pathological conditions	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
BI2.5	Describe and discuss the clinical utility of various serum enzymes as markers of pathological conditions	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Pathology, General Medicine	
BI2.6	Discuss use of enzymes in laboratory investigations (Enzymebased assays)	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Pathology, General Medicine	
BI2.7	Interpret laboratory results of enzyme activities & describe the clinical utility of various enzymes as markers of pathological conditions	K	KH	Y	Lecture, Small group discussio n, DOAP sessions	Written/ Viva voce		Pathology, General Medicine	
BI3.4	Define and differentiate the pathways of carbohydrate metabolism (glycolysis, gluconeogenesis, glycogen metabolism, HMP shunt)	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
BI3.5	Describe and discuss the regulation, functions and integration of carbohydrate along with associated diseases / disorders	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI3.8	Discuss and interpret laboratory results of analytes associated with metabolism of carbohydrates	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Pathology, General Medicine	
BI3.9	Discuss the mechanism and significance of blood glucose regulation in health and disease	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI3.10	Interpret the results of blood glucose levels and other laboratory investigations related to disorders of carbohydrate metabolism	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
BI4.1	Describe and discuss main classes of lipids (Essential/nonessential fatty acids, cholesterol and hormonal steroids, triglycerides, major phospholipids and sphingolipids) relevant to human system and their major functions	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI4.2	Describe the processes involved in digestion and absorption of dietary lipids and also the key features of their metabolism	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI4.3	Explain the regulation of lipoprotein metabolism & associated disorders	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI4.4	Describe the structure and functions of lipoproteins, their functions, interrelations & relations with atherosclerosis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
BI4.5	Interpret laboratory results of analytes associated with metabolism of lipids	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI4.6	Describe the therapeutic uses of prostaglandins and inhibitors of eicosanoid synthesis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI4.7	Interpret laboratory results of analytes associated with metabolism of lipids	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI5.2	Describe and discuss functions of proteins and structure-function relationships in relevant areas e.g., hemoglobin and selected hemoglobinopathies	K	KH	Y	Lecture, Small group discussio n	Viva voce/ Skill assessme nt		Pathology, General Medicine	Physiology

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
BI5.5	Interpret laboratory results of analytes associated with metabolism of proteins	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI6.1	Discuss the metabolic processes that take place in specific organs in the body in the fed and fasting states	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI6.4	Discuss the laboratory results of analytes associated with gout & Lesch Nyhan syndrome	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI6.5	Describe the biochemical role of vitamins in the body and explain the manifestations of their deficiency	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
BI6.7	Describe the processes involved in maintenance of normal pH, water & electrolyte balance of body fluids and the derangements associated with these	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Physiology
BI6.8	Discuss and interpret results of Arterial Blood Gas (ABG) analysis in various disorders	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI6.9	Describe the functions of various minerals in the body, their metabolism and homeostasis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Physiology
BI6.10	Enumerate and describe the disorders associated with mineral metabolism	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
BI6.11	Describe the functions of haem in the body and describe the processes involved in its metabolism and describe porphyrin metabolism	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, General Medicine	Physiology
BI6.12	Describe the major types of haemoglobin and its derivatives found in the body and their physiological/ pathological relevance	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, General Medicine	Physiology
BI6.13	Describe the functions of the kidney, liver, thyroid and adrenal glands	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, General Medicine	Physiology , Human Anatomy
BI6.14	Describe the tests that are commonly done in clinical practice to assess the functions of these organs (kidney, liver, thyroid and adrenal glands)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, General Medicine	Physiology , Human Anatomy

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
BI6.15	Describe the abnormalities of kidney, liver, thyroid and adrenal glands.	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Pathology, General Medicine	Physiology , Human Anatomy
BI7.4	Describe applications of recombinant DNA technology, PCR in the diagnosis and treatment of diseases with genetic basis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Pediatrics, General Medicine	
BI7.7	Describe the role of oxidative stress in the pathogenesis of conditions such as cancer, complications of diabetes mellitus and atherosclerosis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, Pathology	
BI8.1	Discuss the importance of various dietary components and explain importance of dietary fibre	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, Pediatrics, Pathology	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
BI8.2	Describe the types and causes of protein energy malnutrition and its effects	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, Pediatrics, Pathology	
BI8.3	Provide dietary advice for optimal health in childhood and adult, in disease conditions like diabetes mellitus, coronary artery disease and in pregnancy.	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI8.4	Describe the causes (including dietary habits), effects and health risks associated with being overweight/ obesity	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, Pathology	
BI8.5	Summarize the nutritional importance of commonly used items of food including fruits and vegetables (macro-molecules & its importance)	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Communit y Medicine, General Medicine, Pediatrics	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
BI9.2	Discuss the involvement of ECM components in health and disease	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI10.4	Describe & discuss innate and adaptive immune responses, self / non - self recognition and the central role of T-helper cells in immune responses	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, Pathology	Physiology
BI11.4	Perform urine analysis to estimate and determine normal and abnormal constituents	S	P	Y	Lecture, Small group discussio n	Skill assessme nt	1	General Medicine	Physiology
BI11.5	Describe screening of urine for inborn errors & describe the use of paper chromatography	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
BI11.17	<p>Explain the basis and rationale of biochemical tests done in the following conditions:</p> <ul style="list-style-type: none"> - diabetes mellitus, - dyslipidemia, - myocardial infarction, - renal failure, gout, - proteinuria, - nephrotic syndrome, - edema, - jaundice, - liver diseases, pancreatitis, - disorders of acid- base balance, - thyroid disorders. 	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine Pathology	
BI11.22	Calculate albumin: globulin (AG) ratio and creatinine clearance	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
BI11.23	Calculate energy content of different food items, identify food items with high and low glycemic index and explain the importance of these in the diet	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
BI11.24	Enumerate advantages and/or disadvantages of use of unsaturated, saturated and trans fats in food.	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	
BI1.26	Calculate albumin: globulin (AG) ratio and creatinine clearance	S	SH	Y	Lecture, Small group discussio n	Skill assessme nt		General Medicine	
BI1.27	Calculate energy content of different food items, identify food items with high and low glycemic index and explain the importance of these in the diet	S	SH	N	Lecture, Small group discussio n	Skill assessme nt		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
BI1.28	Enumerate advantages and/or disadvantages of use of unsaturated, saturated and trans fats in food	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	
PATHOLOGY									
PA6.1	Define and describe edema its types pathogenesis and clinical correlations	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA9.4	Define autoimmunity. Enumerate autoimmune disorders	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA9.5	Define and describe the pathogenesis of systemic lupus erythematosus	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA9.6	Define and describe the pathogenesis and pathology of HIV and AIDS	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Microbiolo gy
PA9.7	Define and describe the pathogenesis of other common autoimmune diseases	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA10.1	Define and describe the pathogenesis and pathology of malaria	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Microbiolo gy
PA10.2	Define and describe the pathogenesis and pathology of cysticercosis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Microbiolo gy

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA10.3	Define and describe the pathogenesis and pathology of leprosy	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Microbiolo gy
PA10.4	Define and describe the pathogenesis and pathology of common bacterial, viral, protozoal and helminthic diseases	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Microbiolo gy
PA12.3	Describe the pathogenesis of obesity and its consequences	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA13.1	Describe hematopoiesis and extramedullary hematopoiesis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA13.2	Describe the role of anticoagulants in hematology	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA13.3	Define and classify anemia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA13.4	Enumerate and describe the investigation of anemia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA13.5	Perform, Identify and describe the peripheral blood picture in anemia	S	SH	Y	DOAP session	Skill assessme nt		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA14.2	Describe the etiology, investigations and differential diagnosis of microcytic hypochromic anemia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA14.3	Identify and describe the peripheral smear in microcytic anemia	S	SH	Y	DOAP session	Skill assessme nt		General Medicine	
PA15.1	Describe the metabolism of Vitamin B12 and the etiology and pathogenesis of B12 deficiency	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Biochemist ry, General Medicine	
PA15.2	Describe the laboratory investigations of macrocytic anemia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA15.4	Enumerate the differences and describe the etiology and distinguishing features of megaloblastic and non-megaloblastic macrocytic anemia	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA16.1	Define and classify hemolytic anemia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Biochemist ry, General Medicine	
PA16.2	Describe the pathogenesis and clinical features and hematologic indices of hemolytic anemia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Biochemist ry, General Medicine	
PA16.3	Describe the pathogenesis, features, hematologic indices and peripheral blood picture of sickle cell anemia and thalassemia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Biochemist ry, General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA16.4	Describe the etiology pathogenesis, hematologic indices and peripheral blood picture of Acquired hemolytic anemia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Biochemist ry, General Medicine	
PA16.5	Describe indices and peripheral blood smear	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA 17.1	Enumerate the etiology, pathogenesis and findings in aplastic anemia	K	K	N	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA17.2	Enumerate the indications and describe the findings in bone marrow aspiration and biopsy	K	K	N	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA19.6	Enumerate and differentiate the causes of splenomegaly	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Surgery, General Medicine	
PA21.3	Differentiate platelet from clotting disorders based on the clinical and hematologic features	S	SH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA21.4	Define and describe disseminated intravascular coagulation, its laboratory findings and diagnosis of disseminated intravascular coagulation	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA21.5	Define and describe disseminated intravascular coagulation its laboratory findings and diagnosis of Vitamin K deficiency	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA22.4	Enumerate blood components and describe their clinical uses	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Surgery, General Medicine	
PA22.6	Describe transfusion reactions and enumerate the steps in the investigation of a transfusion reaction	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA24.2	Describe the etiology, pathogenesis, pathology, microbiology, clinical and microscopic features of peptic ulcer disease	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA24.3	Describe and identify the microscopic features of peptic ulcer	S	SH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA25.1	Describe bilirubin metabolism, enumerate the etiology and pathogenesis of jaundice, distinguish between direct and indirect hyperbilirubinemia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Biochemist ry, General Medicine	
PA25.2	Describe the pathophysiology and pathologic changes seen in hepatic failure and their clinical manifestations, complications and consequences	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, General Surgery	
PA25.3	Describe the etiology and pathogenesis of viral and toxic hepatitis:	K	KH	Y	Lecture, Small group	Written/ Viva voce		General Medicine	
	distinguish the causes of hepatitis based on the clinical and laboratory features. Describe the pathology, complications and consequences of hepatitis				discussio n				
PA25.4	Describe the pathophysiology, pathology and progression of alcoholic liver disease including cirrhosis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, General Surgery	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA25.5	Describe the etiology, pathogenesis and complications of portal hypertension	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, General Surgery	
PA25.6	Interpret a liver function and viral hepatitis serology panel. Distinguish obstructive from non obstructive jaundice based on clinical features and liver function tests	S	P	Y	DOAP session	Skill assessme nt	1	General Medicine	
PA26.1	Define and describe the etiology, types, pathogenesis, stages, morphology and complications of pneumonia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Microbiolo gy
PA26.2	Describe the etiology, gross and microscopic appearance and complications of lung abscess	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Microbiolo gy

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA26.3	Define and describe the etiology, types, pathogenesis, stages, morphology and complications and evaluation of Obstructive airway disease (OAD) and bronchiectasis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Physiology , General Medicine	Microbiolo gy
PA26.4	Define and describe the etiology, types, pathogenesis, stages, morphology microscopic appearance and complications of tuberculosis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Microbiolo gy
PA26.5	Define and describe the etiology, types, exposure, environmental influence, pathogenesis, stages, morphology, microscopic appearance and complications of Occupational lung disease	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, Communit y Medicine	
PA26.6	Define and describe the etiology, types, exposure, genetics environmental influence, pathogenesis, stages, morphology, microscopic appearance, metastases and complications of tumors of the lung and pleura	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA26.7	Define and describe the etiology, types, exposure, genetics environmental influence, pathogenesis, morphology, microscopic appearance and complications of mesothelioma	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, Communit y Medicine	
PA27.1	Distinguish arteriosclerosis from atherosclerosis. Describe the pathogenesis and pathology of various causes and types of arteriosclerosis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA27.2	Describe the etiology, dynamics, pathology types and complications of aneurysms including aortic aneurysms	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA27.3	Describe the etiology, types, stages pathophysiology pathology and complications of heart failure	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, Physiology	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA27.4	Describe the etiology, pathophysiology, pathology, gross and microscopic, features, criteria and complications of rheumatic fever	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Microbiolo gy
PA27.5	Describe the epidemiology, risk factors, etiology, pathophysiology, pathology, presentations, gross and microscopic, features, diagnostic tests and complications of ischemic heart disease	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA27.6	Describe the etiology, pathophysiology, pathology, gross and microscopic, features diagnosis and complications of infective endocarditis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Microbiolo gy
PA27.7	Describe the etiology, pathophysiology, pathology, gross and microscopic, features diagnosis and complications of pericarditis and pericardial effusion	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA27.8	Interpret abnormalities in cardiac function testing in acute coronary syndromes	S	SH	Y	DOAP session	Skill Assessment		Physiology, General Medicine	
PA27.9	Classify and describe the etiology, types, pathophysiology, pathology, gross and microscopic features, diagnosis and complications of cardiomyopathies	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Physiology	
PA27.10	Describe the etiology, pathophysiology, pathology features and complications of syphilis on the cardiovascular system	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Microbiology
PA28.3	Define and describe the etiology, precipitating factors, pathogenesis, pathology, laboratory urinary findings, progression and complications of acute renal failure	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA28.4	Define and describe the etiology, precipitating factors, pathogenesis, pathology, laboratory urinary findings progression and complications of chronic renal failure	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA28.5	Define and classify glomerular diseases. Enumerate and describe the etiology, pathogenesis, mechanisms of glomerular injury, pathology, distinguishing features and clinical manifestations of glomerulonephritis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Physiology , General Medicine	
PA28.6	Define and describe the etiology, pathogenesis, pathology, laboratory, urinary findings, progression and complications of IgA nephropathy	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA28.7	Enumerate and describe the findings in glomerular manifestations of systemic disease	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA28.8	Enumerate and classify diseases affecting the tubular interstitium	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA28.9	Define and describe the etiology, pathogenesis, pathology, laboratory, urinary findings, progression and complications of acute tubular necrosis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA28.1 1	Define classify and describe the etiology, pathogenesis pathology, laboratory, urinary findings, distinguishing features, progression and complications of vascular disease of the kidney	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA28.1 2	Define classify and describe the genetics, inheritance etiology, pathogenesis, pathology, laboratory, urinary findings, distinguishing features, progression and complications of cystic disease of the kidney	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, Pediatrics	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA28.1 5	Describe the etiology, genetics, pathogenesis, pathology, presenting features and progression of thrombotic angiopathies	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA31.4	Enumerate and describe the etiology, hormonal dependency and pathogenesis of gynecomastia	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		Pediatrics, General Medicine	
PA32.1	Enumerate, classify and describe the etiology, pathogenesis, pathology and iodine dependency of thyroid swellings	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Human Anatomy, Physiology , General Medicine, General Surgery	
PA32.2	Describe the etiology, cause, iodine dependency, pathogenesis, manifestations, laboratory and imaging features and course of thyrotoxicosis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Physiology , General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA32.3	Describe the etiology, pathogenesis, manifestations, laboratory and imaging features and course of thyrotoxicosis/hypothyroidism	K	KH	Y	Lecture, Small group	Written/ Viva voce		Physiology , General Medicine	
PA32.4	Classify and describe the epidemiology, etiology, pathogenesis, pathology, clinical laboratory features, complications and progression of diabetes mellitus	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Physiology , General Medicine	
PA32.5	Describe the etiology, genetics, pathogenesis, manifestations, laboratory and morphologic features of hyperparathyroidism	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		Physiology , General Medicine	
PA32.7	Describe the etiology, pathogenesis, manifestations, laboratory, morphologic features, complications of adrenal insufficiency	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		Physiology , General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA32.8	Describe the etiology, pathogenesis, manifestations, laboratory, morphologic features, complications of Cushing's syndrome	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		Physiology , General Medicine	
PA32.9	Describe the etiology, pathogenesis, manifestations, laboratory and morphologic features of adrenal neoplasms	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		Human Anatomy, Physiology , General Medicine, General Surgery	
PA33.5	Classify and describe the etiology, immunology, pathogenesis, manifestations, radiologic and laboratory features, diagnostic criteria and complications of rheumatoid arthritis	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PA35.1	Describe the etiology, types and pathogenesis, differentiating factors, CSF findings in meningitis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Microbiolo gy

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PA35.3	Identify the etiology of meningitis based on given CSF parameters	S	P	Y	DOAP session	Skill Assessment	1	General Medicine	Microbiology
MICROBIOLOGY									
MI2.1	Describe the etiologic agents in rheumatic fever and their diagnosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pathology
MI2.2	Describe the classification, etio-pathogenesis, clinical features and discuss the diagnostic modalities of Infective endocarditis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pathology
MI2.3	Identify the microbial agents causing Rheumatic heart disease & infective Endocarditis	S	SH	Y	DOAP session	Skill assessment		General Medicine	Pathology

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
MI2.4	List the common microbial agents causing anemia. Describe the morphology, mode of infection and discuss the pathogenesis, clinical course, diagnosis and prevention and treatment of the common microbial agents causing Anemia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Pathology
MI2.5	Describe the etio-pathogenesis and discuss the clinical evolution and the laboratory diagnosis of kalazaar, malaria, filariasis and other common parasites prevalent in India	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Pathology
MI2.6	Identify the causative agent of malaria and filariasis	K/S	SH	Y	DOAP session	Skill assessme nt		General Medicine	
MI2.7	Describe the epidemiology, the etio-pathogenesis evolution complications, opportunistic infections, diagnosis prevention and the principles of management of HIV	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Pathology

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
MI3.1	Enumerate the microbial agents causing diarrhea and dysentery. Describe the epidemiology, morphology, pathogenesis, clinical features, and diagnostic modalities of these agents	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, Paediatrics	Pathology
MI3.2	Identify the common etiologic agents of diarrhea and dysentery	S	SH	Y	DOAP session	Skill assessme nt		General Medicine, Paediatrics	
MI3.3	Describe the enteric fever pathogens and discuss the evolution of the clinical course, the laboratory diagnosis of the diseases caused by them	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Pharmacol ogy, Pathology
MI3.4	Identify the different modalities for diagnosis of enteric fever. Choose the appropriate test related to the duration of illness	S	KH	Y	DOAP session	Skill assessme nt		General Medicine	Pathology
MI3.5	Enumerate the causative agents of food poisoning and discuss the pathogenesis, clinical course and laboratory diagnosis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Pharmacol ogy

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
MI3.6	Describe the etio-pathogenesis of Acid peptic disease (APD) and the clinical course. Discuss the diagnosis and management of the causative agent of APD	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Pharmacol ogy, Pathology
MI3.7	Describe the epidemiology, the etio-pathogenesis and discuss the viral markers in the evolution of Viral hepatitis. Discuss the modalities in the diagnosis, and prevention of viral hepatitis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Pathology
MI3.8	Choose the appropriate laboratory test in the diagnosis of viral hepatitis	K	KH	Y	Small group discussio n, Case discussio n	Written/ Viva voce/ OSPE		General Medicine	Pathology
MI4.1	Enumerate the microbial agents causing anaerobic infections. Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of anaerobic infections	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
MI5.1	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of meningitis	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Paediatrics	Pathology
MI5.2	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of encephalitis	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Paediatrics	Pathology
MI5.3	Identify the microbial agents causing meningitis	S	SH	Y	DOAP session	Skill assessme nt		General Medicine, Paediatrics	
MI6.1	Describe the etio-pathogenesis, laboratory diagnosis and prevention of Infections of upper and lower respiratory tract	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
MI6.2	Identify the common etiologic agents of upper respiratory tract infections (Gram Stain)	S	P	Y	DOAP session	Skill assessme nt	3	General Medicine	
MI6.3	Identify the common etiologic agents of lower respiratory tract infections (Gram Stain & Acid fast stain).	S	P	Y	DOAP session	Skill assessme nt	3	General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
MI7.3	Describe the etio-pathogenesis, clinical features, the appropriate method for specimen collection, and discuss the laboratory diagnosis of Urinary tract infections	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
MI8.1	Enumerate the microbial agents and their vectors causing Zoonotic diseases. Describe the morphology, mode of transmission, pathogenesis and discuss the clinical course, laboratory diagnosis and prevention	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
MI8.2	Describe the etio-pathogenesis of opportunistic infections (OI) and discuss the factors contributing to the occurrence of OI, and the laboratory diagnosis	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	Pathology
MI8.3	Describe the role of oncogenic viruses in the evolution of virus associated malignancy	K	KH	Y	Lecture	Written		General Medicine	Pathology

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
MI8.4	Describe the etiologic agents of emerging Infectious diseases. Discuss the clinical course and diagnosis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, Communit y Medicine	
MI8.5	Define Healthcare Associated Infections (HAI) and enumerate it types. Discuss the factors that contribute to the development of HAI and the methods for prevention	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, Communit y Medicine	
PHARMACOLOGY									
PH1.12	Calculate the dosage of drugs using appropriate formulae for an individual patient, including children, elderly and patient with renal dysfunction	K/S	SH	Y	Lecture, practical	Written/ Viva voce		Pediatrics, General Medicine	
PH1.16	Describe mechanism/s of action, types, doses, side effects, indications and contraindications of the drugs which act by modulating autacoids, including: Anti-histaminics, 5-HT modulating drugs, NSAIDs, Drugs for gout, Anti-rheumatic drugs, drugs for migraine	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PH1.21	Describe the symptoms and management of methanol and ethanol poisonings	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		General Medicine	
PH1.25	Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of the drugs acting on blood, like anticoagulants, antiplatelets, fibrinolytics, plasma expanders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology , General Medicine	
PH1.26	Describe mechanisms of action, types, doses, side effects, indications and contraindications of the drugs modulating the renin angiotensin and aldosterone system	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology , General Medicine	
PH1.27	Describe the mechanisms of action, types, doses, side effects, indications and contraindications of Antihypertensive drugs and drugs used in shock	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PH1.28	Describe the mechanisms of action, types, doses, side effects, indications and contraindications of the drugs used in ischemic heart disease (stable, unstable angina and myocardial infarction), peripheral vascular disease	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Pathology
PH1.29	Describe the mechanisms of action, types, doses, side effects, indications and contraindications of the drugs used in congestive heart failure	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	Pathology
PH1.30	Describe the mechanisms of action, types, doses, side effects, indications and contraindications of the drugs used as Antiarrhythmics	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
PH1.31	Describe the mechanisms of action, types, doses, side effects, indications and contraindications of the drugs used in the management of dyslipidemia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PH1.34	Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of the drugs used as below: 1. Acid-peptic disease and GERD 2. Antiemetics and prokinetics 3. Antidiarrhoeals 4. Laxatives 5. Inflammatory Bowel Disease 6. Irritable Bowel Disorders, biliary and pancreatic diseases	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
PH1.35	Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of drugs used in hematological disorders like: 1. Drugs used in anemias 2. Colony Stimulating factors	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Physiology	Pharmacology
PH1.36	Describe the mechanism of action, types, doses, side effects, indications and contraindications of drugs used in endocrine disorders (diabetes mellitus, thyroid disorders and osteoporosis)	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	Pathology, Pharmacology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PH1.43	Describe and discuss the rational use of antimicrobials including antibiotic stewardship program	K	KH	Y	Lecture	Written/ Viva voce		General Medicine Pediatrics	Microbiology, Pharmacology
PH1.47	Describe the mechanisms of action, types, doses, side effects, indications and contraindications of the drugs used in malaria, KALA-AZAR, amebiasis and intestinal helminthiasis	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	Microbiology
PH1.52	Describe management of common poisoning, insecticides, common sting and bites	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	
PH2.4	Demonstrate the correct method of calculation of drug dosage in patients including those used in special situations	S	SH	Y	DOAP sessions	Skills assessment		Pediatrics, Pharmacology	
PH3.1	Write a rational, correct and legible generic prescription for a given condition and communicate the same to the patient	S/C	P	Y	Skill station	Skill station	5	General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PH3.3	Perform a critical evaluation of the drug promotional literature	S	P	Y	Skill Lab	Maintena nce of log book/ Skill station	3	General Medicine	
PH3.5	To prepare and explain a list of P-drugs for a given case/condition	S	P	Y	Skill station	Maintena nce of log book	3	General Medicine	
PH5.1	Communicate with the patient with empathy and ethics on all aspects of drug use	A/C	SH	Y	Small group discussio n	Skill station		General Medicine	
PH5.4	Explain to the patient the relationship between cost of treatment and patient compliance	A/C	SH	Y	Small group discussio n	Short note/ Viva voce		General Medicine	
COMMUNITY MEDICINE									
CM3.1	Describe the health hazards of air, water, noise, radiation and pollution	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine, ENT	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
CM3.3	Describe the aetiology and basis of water borne diseases/jaundice/hepatitis/diarrheal diseases	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/Viva voce		Microbiology, General Medicine, Pediatrics	
CM5.1	Describe the common sources of various nutrients and special nutritional requirements according to age, sex, activity, physiological conditions	K	KH	Y	Lecture, Small group discussion	Written/Viva voce		General Medicine, Pediatrics	
CM5.2	Describe and demonstrate the correct method of performing a nutritional assessment of individuals, families and the community by using the appropriate method	S	SH	Y	DOAP sessions	Skill Assessment		General Medicine, Pediatrics	
CM5.3	Define and describe common nutrition related health disorders (Including macro-PEM, Micro-iron, Zn, iodine, Vit. A), their control and management	K	KH	Y	Lecture, Small group discussion	Written/Viva voce		General Medicine, Pediatrics	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
CM5.4	Plan and recommend a suitable diet for the individuals and families based on local availability of foods and economic status, etc in a simulated environment	S	SH	Y	DOAP sessions	Skill Assessment		General Medicine, Pediatrics	
CM5.5	Describe the methods of nutritional surveillance, principles of nutritional education and rehabilitation in the context of sociocultural factors	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		General Medicine, Pediatrics	
CM6.1	Formulate a research question for a study	K	KH	Y	Small group discussion, Lecture, DOAP sessions	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics	
CM6.2	Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data	S	SH	Y	Small group discussion, Lecture, DOAP sessions	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
CM6.3	Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs	S	SH	Y	Small group discussion, Lecture, DOAP sessions	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics	
CM6.4	Enumerate, discuss and demonstrate common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion	S	SH	Y	Small group discussion, Lecture, DOAP sessions	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics	
CM7.1	Define Epidemiology and describe and enumerate the principles, concepts and uses	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		General Medicine	
CM7.2	Enumerate, describe and discuss the modes of transmission and measures for prevention and control of communicable and noncommunicable diseases	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
CM7.3	Enumerate, describe and discuss the sources of epidemiological data	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		General Medicine	
CM7.4	Define, calculate and interpret morbidity and mortality indicators based on given set of data	S	SH	Y	Small group discussion, DOAP sessions	Written/ Skill assessment		General Medicine	
CM7.5	Enumerate, define, describe and discuss epidemiological study designs.	K	KH	Y	Small group discussion, Lecture	Written / Viva voce		General Medicine	
CM7.6	Enumerate and evaluate the need of screening tests	S	SH	Y	Small group discussion, DOAP sessions	Written/ Skill assessment		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
CM7.7	Describe and demonstrate the steps in the Investigation of an epidemic of communicable disease and describe the principles of control measures.	S	SH	Y	Small group discussion, DOAP sessions	Written/ Skill assessment		General Medicine	Microbiolo gy
CM7.8	Describe the principles of association, causation and biases in epidemiological studies	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		General Medicine	
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	Small group discussion, Lecture	Written/ Viva voce		General Medicine, Pediatrics	Microbiolo gy Pathology
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	Small group discussion, Lecture	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
CM8.3	Enumerate and describe disease-specific National Health Programs including their prevention and treatment of a case	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		General Medicine, Pediatrics	
CM8.4	Describe the principles and enumerate the measures to control a disease epidemic	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		General Medicine, Pediatrics	
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	Small group discussion, Lecture	Written / Viva voce		General Medicine, Pediatrics	
CM12.1	Define and describe the concept of Geriatric services	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
CM12.2	Describe health problems of aged population	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
CM12.3	Describe the prevention of health problems of aged population	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
CM12.4	Describe National program for elderly	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
CM13.1	Define and describe the concept of Disaster management	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Surgery, General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
CM13.2	Describe disaster management cycle	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Surgery, General Medicine	
CM13.3	Describe man made disasters in the world and in India	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Surgery, General Medicine	
CM13.4	Describe the details of the National Disaster management Authority	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Surgery, General Medicine	
FORENSIC MEDICINE AND TOXICOLOGY									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM1.9	<p>Describe the importance of documentation in medical practice in regard to medicolegal examinations, Medical Certificates and medicolegal reports especially – maintenance of patient case records, discharge summary, prescribed registers to be maintained in Health Centres. -- maintenance of medico-legal register like accident register.</p> <ul style="list-style-type: none"> - 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 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Radio- diagnosis, General Surgery, General Medicine, Pediatrics	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
FM2.34	Demonstrate ability to use local resources whenever required like in mass disaster situations	A & C	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine, AETCOM	
FM3.22	Define and discuss impotence, sterility, frigidity, sexual dysfunction, premature ejaculation. Discuss the causes of impotence and sterility in male and female	K	K/KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Obstetrics & Gynaecolo gy, General Medicine	
FM5.5	Describe & discuss Delirium tremens	K	K/KH	Y	Lecture, Small group discussio n	Written / Viva voce		Psychiatry, General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
FM8.6	Describe the general symptoms, principles of diagnosis and management of common poisons encountered in India.	K	K/KH	Y	Lecture, Small group discussio n, Bed side clinic, DOAP session	Written / Viva voce / OSCE		Pharmacol ogy	
FM8.7	Describe simple Bedside clinic tests to detect poison/drug in a patient's body fluids	K	K/KH	Y	Lecture, Small group discussio n, Bed side clinic, DOAP session	Written / Viva voce / OSCE		Pharmacol ogy, General Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM8.8	Describe basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic, DOAP session	Written/ Viva voce/ OSCE		Pharmacology, General Medicine	
FM9.1	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to: Caustics Inorganic – sulphuric, nitric, and hydrochloric acids Organic- Carbolic Acid (phenol), Oxalic and acetylsalicylic acids.	K	K/KH	Y	Lecture, Small group Lecture, Small group	Written/ Viva voce/ OSCE		Pharmacology, General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
FM9.2	Describe General Principles and basic methodologies in treatment of poisoning : decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Phosphorus, Iodine, Barium	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session	Written/ Viva voce/ OSCE		Pharmacology, General Medicine	
FM9.3	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Arsenic, lead, mercury, copper, iron, cadmium and thallium	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session	Written/ Viva voce/ OSCE		Pharmacology, General Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM9.4	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Ethanol, methanol, ethylene glycol	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session	Written/ Viva voce/ OSCE		Pharmacology, General Medicine	
FM9.5	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Organophosphates, Carbamates, Organochlorines, Pyrethroids, Paraquat, Aluminium and Zinc phosphide	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session	Written/ Viva voce/ OSCE		Pharmacology, General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
FM9.6	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to Ammonia, carbon monoxide, hydrogen cyanide & derivatives, methyl isocyanate, tear (riot control) gases	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session	Written/ Viva voce/ OSCE		Pharmacology, General Medicine	
FM10.1	Describe General Principles and basic methodologies in treatment of poisoning: decontamination, supportive therapy, antidote therapy, procedures of enhanced elimination with regard to: i. Antipyretics – Paracetamol, Salicylates ii. Anti-Infectives (Common antibiotics – an overview) iii. Neuropsychotoxicology Barbiturates, benzodiazepines, phenytoin, lithium, haloperidol, neuroleptics, tricyclics iv. Narcotic Analgesics, Anaesthetics, and Muscle Relaxants v. Cardiovascular Toxicology Cardiotoxic plants – oleander, odollam, aconite, digitalis vi. Gastro-Intestinal and Endocrinal Drugs – Insulin	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic, Autopsy, DOAP session	Written/ Viva voce/ OSCE		Pharmacology, General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
FM11.1	Describe features and management of Snake bite, scorpion sting, bee and wasp sting and spider bite	K	K/KH	Y	Lecture, Small group discussio n, Autopsy	Written / Viva voce		General Medicine	
FM12.1	Describe features and management of abuse / poisoning with following camicals: Tobacco, cannabis, amphetamines, cocaine, hallucinogens, designer drugs & solvent	K	K/KH	Y	Lecture, Small group discussio n, Autopsy	Written / Viva voce		General Medicine	
FM13.1	Describe toxic pollution of environment, its medico-legal aspects & toxic hazards of occupation and industry	K	K/KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
FM14.2	Demonstrate the correct technique of clinical examination in a suspected case of poisoning & prepare medico-legal report in a simulated/ supervised environment	S	SH	Y	Bedside clinic (ward/ casualty), Small group discussion	Logbook Skill station / Viva voce / OSCE		General Medicine	
FM14.3	Assist and demonstrate the proper technique in collecting, preserving and dispatch of the exhibits in a suspected case of poisoning, along with clinical examination .	S	SH	Y	Bedside clinic, Small group discussion/DOAP session	Skill lab/ Viva voce		General Medicine	
DERMATOLOGY, VENEREOLOGY AND LEPROSY									
DR9.1	Classify, describe the epidemiology, etiology, microbiology pathogenesis and clinical presentations and diagnostic features of Leprosy	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		General Medicine	Microbiology, Community Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
DR9.2	Demonstrate (and classify based on) the clinical features of leprosy including an appropriate neurologic examination	S	SH	Y	Lecture, Small group discussio n	Bedside clinic session/ Skill assessme nt		General Medicine	
DR9.4	Enumerate, describe and identify lepra reactions and supportive measures and therapy of lepra reactions	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	Pharmacol ogy
DR9.5	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for various classes of leprosy based on national guidelines	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	Pharmacol ogy, Communit y Medicine
DR9.6	Describe the treatment of Leprosy based on the WHO guidelines	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	Pharmacol ogy, Communit y Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
DR9.7	Enumerate and describe the complications of leprosy and its management, including understanding disability and stigma.	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	Pharmacol ogy, Psychiatry
DR10.1	Identify and classify syphilis based on the presentation and clinical manifestations	S	SH	Y	Bedside clinic	Skill assessme nt		General Medicine	Microbiolo gy
DR10.3	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for syphilis	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	Pharmacol ogy, Microbiolo gy
DR10.4	Describe the prevention of congenital syphilis	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
DR10.5	Counsel in a non-judgemental and empathetic manner patients on prevention of sexually transmitted diseases	C	SH	Y	Lecture, Small group discussio n	Skill assessme nt		General Medicine	
DR10.6	Describe the etiology, diagnostic and clinical features of non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	Microbiolo gy
DR10.7	Identify and differentiate based on the clinical features non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)	S	SH	Y	Lecture, Small group discussio n	Skill assessme nt		General Medicine	Microbiolo gy
DR10.8	Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	Pharmacol ogy, Microbiolo gy

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
DR10.9	Describe the syndromic approach to ulcerative sexually transmitted disease	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	
DR10.10	Describe the etiology, diagnostic and clinical features and management of gonococcal and non gonococcal urethritis	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	
DR11.1	Describe the etiology, pathogenesis and clinical features of the dermatologic manifestations of HIV and its complications including opportunistic infections	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	Microbiolo gy
DR11.2	Identify and distinguish the dermatologic manifestations of HIV its complications, opportunistic infections and adverse reactions	S	SH	Y	Lecture, Small group discussio n	Skill assessme nt		General Medicine	Microbiolo gy

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
DR11.3	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for dermatologic lesions in HIV	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	Pharmacol ogy, Microbiolo gy
DR12.7	Identify and distinguish fixed drug eruptions and Steven Johnson syndrome from other skin lesions	S	SH	Y	Lecture, Small group discussio n	Skill assessme nt		General Medicine	Pathology, Microbiolo gy
DR16.1	Identify and distinguish skin lesions of SLE	S	SH	Y	Lecture, Small group discussio n	Skill assessme nt		General Medicine	Pathology
DR16.2	Identify and distinguish Raynaud's phenomenon	S	SH	Y	Lecture, Small group discussio n	Skill assessme nt		General Medicine	Pathology

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
DR17.1	Enumerate and identify the cutaneous findings in vitamin A deficiency	K/S	SH	Y	Lecture, Small group discussio n	Skill assessme nt/ Viva voce		General Medicine, Pediatrics, Biochemist ry	
DR17.2	Enumerate and describe the various skin changes in Vitamin B complex deficiency	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine, Pediatrics, Biochemist ry	
DR17.3	Enumerate and describe the various changes in Vitamin C deficiency	K	KH	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine, Pediatrics, Biochemist ry	
DR17.4	Enumerate and describe the various changes in Zinc deficiency	K	KH	Y	Lecture, Small group	Written / Viva voce		General Medicine,	
					discussio n			Pediatrics, Biochemist ry	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
DR18.1	Enumerate the cutaneous features of Type 2 diabetes	K	K	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	
DR18.2	Enumerate the cutaneous features of hypo- & hyperthyroidism	K	K	Y	Lecture, Small group discussio n	Written / Viva voce		General Medicine	
ANESTHESIOLOGY									
AS2.1	Enumerate the indications, describe the steps and demonstrate in a simulated environment basic life support in adults children and neonates	S	SH	N	DOAP session	Skill assessme nt		General Medicine, Pediatrics	
AS2.2	Enumerate the indications, describe the steps and demonstrate in a simulated environment advanced life support in adults and children	S	SH	N	DOAP session	Skill assessme nt Written / Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
AS3.1	Describe the principles of preoperative evaluation	K	KH	Y	Lecture, Small group discussio n				General Surgery, General Medicine
AS3.2	Elicit, present and document an appropriate history including medication history in a patient undergoing Surgery as it pertains to a preoperative anaesthetic evaluation	S	SH	Y	DOAP session, Bedside clinic	Skill station			General Surgery, General Medicine
AS3.3	Demonstrate and document an appropriate clinical examination in a patient undergoing General Surgery	S	SH	Y	DOAP session, Bedside clinic	Skill station			General Surgery, General Medicine
AS3.4	Choose and interpret appropriate testing for patients undergoing Surgery	S	SH	Y	DOAP session, Bedside clinic	Skill station			General Surgery, General Medicine
AS3.5	Determine the readiness for General Surgery in a patient based on the preoperative evaluation	S	SH	Y	DOAP session, Bedside clinic	Skill station			General Surgery, General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
AS7.2	Enumerate and describe the criteria for admission and discharge of a patient to an ICU	S	KH	Y	Lecture, Small group discussio n, DOAP session	Written/ Viva voce			General Medicine
AS7.3	Observe and describe the management of an unconscious patient	S	KH	Y	Lecture, Small group discussio n DOAP session	Written/ Viva voce		Physiology	General Medicine
AS7.4	Observe and describe the basic setup process of a ventilator	S	KH	Y	Lecture, Small group discussio n DOAP session	Written/ Viva voce		Physiology	General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
AS7.5	Observe and describe the principles of monitoring in an ICU	S	KH	Y	Lecture, Small group discussio n DOAP session	Written/ Viva voce			General Medicine
AS8.4	Describe the principles of pain management in palliative care	K	KH	Y	Lecture, Small group discussio n, DOAP session	Written/ Viva voce		Pharmacol ogy	General Medicine
AS8.5	Describe the principles of pain management in the terminally ill	K	KH	Y	Lecture, Small group discussio n, DOAP session	Written/ Viva voce		Pharmacol ogy	General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
AS10.4	Define and describe common medical and medication errors in anaesthesia	K	KH	Y	Lecture, Small group discussio n, DOAP session	Written/ Viva voce		Pharmacol ogy	General Medicine
OTORHINOLARYNGOLOGY (ENT)									
EN4.53	Describe the Clinical features, Investigations and principles of management of HIV manifestations of the ENT	K	KH	N	Lecture, Small group discussio n, Demonstr ation	Written/ Viva voce/ Skill assessme nt		General Medicine	
OPHTHALMOLOGY									
OP5.2	Define, enumerate and describe the aetiology, associated systemic conditions, clinical features, complications, indications for referral and management of scleritis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OP6.3	Enumerate systemic conditions that can present as iridocyclitis and describe their ocular manifestations	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
OP9.3	Describe the role of refractive error correction in a patient with headache and enumerate the indications for referral	K	K	Y	Lecture, Small group discussio n	Written/ Viva voce		General Medicine	
DENTISTRY									
DE1.4	Discuss the role of dental caries as a focus of sepsis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Microbiolo gy, General Medicine	
PSYCHIATRY									
PS3.7	Enumerate and describe common organic psychiatric disorders, magnitude, etiology and clinical features	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PS3.8	Enumerate and describe the essential investigations in patients with organic psychiatric disorders	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine
PS4.1	Describe the magnitude and etiology of alcohol and substance use disorders	K	KH	Y	Lecture, Small group discussio n	Lecture/ Small group discussio n			General Medicine
PS4.2	Elicit, describe and document clinical features of alcohol and substance use disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessme nt			General Medicine
PS4.3	Enumerate and describe the indications and interpret laboratory and other tests used in alcohol and substance abuse disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessme nt			General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PS4.4	Describe the treatment of alcohol and substance abuse disorders including behavioural and pharmacologic therapy	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Pharmacol ogy	General Medicine
PS4.6	Enumerate and describe the pharmacologic basis and side effects of drugs used in alcohol and substance abuse	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Pharmacol ogy	General Medicine
PS10.1	Enumerate and describe the magnitude and etiology of somatoform, dissociative and conversion disorders	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine
PS10.2	Enumerate, elicit, describe and document clinical features in patients with somatoform, dissociative and conversion disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessme nt			General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PS10.3	Enumerate and describe the indications and interpret laboratory and other tests used in somatoform, dissociative and conversion disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Medicine
PS10.4	Describe the treatment of somatoform disorders including behavioural, psychosocial and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	General Medicine
PS10.6	Enumerate and describe the pharmacologic basis and side effects of drugs used in somatoform, dissociative and conversion disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	General Medicine
PS12.1	Enumerate and describe the magnitude and etiology of psychosomatic disorders	K	KH	Y	Lecture Small group discussion	Written/ Viva voce			General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PS12.2	Enumerate, elicit, describe and document clinical features in patients with magnitude and etiology of psychosomatic disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Medicine
PS12.3	Enumerate and describe the indications and interpret laboratory and other tests of psychosomatic disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Medicine
PS12.4	Describe the treatment of psychosomatic disorders including behavioural, psychosocial and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	General Medicine
PS16.1	Enumerate and describe common psychiatric disorders in the elderly including dementia, depression and psychosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PS16.2	Describe the aetiology and magnitude of psychiatric illness in the elderly	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine
PS16.3	Describe the therapy of psychiatric illness in elderly including psychosocial and behavioural therapy	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine
PS16.4	Demonstrate family education in a patient with psychiatric disorders occurring in the elderly in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessme nt			General Medicine
OBSTETRICS AND GYNAECOLOGY									
OG12.1	Define, classify and describe the etiology and pathophysiology, early detection, investigations; principles of management of hypertensive disorders of pregnancy and eclampsia, complications of eclampsia	K	KH	Y	Lecture, Small group discussio n, Bedside clinics	Written/ Viva voce/ Skill assessme nt			General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG12.2	Define, Classify and describe the etiology, pathophysiology, diagnosis, investigations, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of anemia in pregnancy	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			General Medicine
OG12.3	Define, Classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of diabetes in pregnancy	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			General Medicine
OG12.4	Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of heart diseases in pregnancy	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG12.5	Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management in pregnancy of urinary tract infections	K	KH	Y	Lecture, Small group discussio n, Bedside clinics	Written/ Viva voce/ Skill assessme nt			General Medicine
OG12.6	Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management in pregnancy of liver disease	K	KH	Y	Lecture, Small group discussio n, Bedside clinics	Written/ Viva voce/ Skill assessme nt			General Medicine
OG12.7	Describe and discuss Screening, risk factors, management of mother and newborn with HIV	K	KH	Y	Lecture, Small group discussio n, Bedside clinics	Written/ Viva voce/ Skill assessme nt			General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PEDIATRICS									
PE14.3	Discuss the risk factors, clinical features, diagnosis and management of Organophosphorous poisoning	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce		Pharmacol ogy	General Medicine
PE32.3	Interpret normal Karyotype and recognize Trisomy 21	S	SH	Y	Bedside clinics, Skills lab	Log book			General Medicine
PE32.9	Discuss the referral criteria and multidisciplinary approach to management of Turner Syndrome	K	KH	N	Lecture, Small group discussio n	Written/ Viva voce			General Medicine, Obstetrics & Gynecolog y
GENERAL SURGERY									
SU22.6	Describe and discuss the clinical features of hypo- & hyperparathyroidism and the principles of their management	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
SU23.2	Describe the etiology, clinical features and principles of management of disorders of adrenal gland	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine
ORTHOPAEDICS									
OR5.1	Describe and discuss the aetiopathogenesis, clinical features, Investigations and principles of management of various inflammatory disorder of joints	K	K/KH	Y	Lecture, Small group Discussio n, Bedside clinic	Written/ Viva voce OSCE			General Medicine
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	K	K/H	Y	Lecture Small Group discussio n, case discussio n	Written/ Viva voce OSCE		Human Anatomy	General Medicine, General surgery

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PHYSICAL MEDICINE AND REHABILITATION									
PM1.2	Define and describe disability, its cause, and magnitude, identification and prevention of disability	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine Orthopedic s
PM1.3	Define and describe the methods to identify and prevent disability	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine Orthopedic s
PM1.4	Enumerate the rights and entitlements of differently abled persons	K	K	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine Orthopedic s
PM2.1	Describe the causes of disability in the patient with a cerebrovascular accident	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Human Anatomy	General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PM2.2	Describe and discuss the treatment of rigidity and spasticity	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine
PM2.3	Describe and discuss the principles of early mobilizations, mobility aids and splints	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine
PM2.4	Describe and discuss the impact of comorbidities on the rehabilitation of the patient with cerebrovascular accident	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine
PM4.1	Describe the common patterns, clinical features, investigations, diagnosis and treatment of common causes of arthritis	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine Orthopedic s

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PM4.5	Demonstrate correct assessment of muscle strength and range of movements	S	SH	Y	DOAP session, Bedside clinic	Skill assessment			General Medicine Orthopedics
PM6.1	Perform and demonstrate a clinical examination of sensory and motor deficits of peripheral nerve	S	SH	Y	Bedside clinic	Skill assessment			General Medicine
PM6.2	Enumerate the indications and describe the principles of nerve conduction velocity and EMG	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine
PM7.4	Assess bowel and bladder function and identify common patterns of bladder dysfunction	S	KH	Y	Small group discussion	Written/ Viva voce			General Medicine Orthopedics
PM7.6	Enumerate the indications and describe the pharmacology and side effects of commonly used drugs in neuropathic bladder	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PM7.7	Enumerate and describe common life threatening complications following SCI like Deep vein Thrombosis, Aspiration Pneumonia, Autonomic dysreflexia	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine Orthopedic s
PM8.1	Describe the clinical features, evaluation, diagnosis and management of disability following traumatic brain injury	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine Orthopedic s General Surgery
PM8.2	Describe and discuss cognitive dysfunction like deficits in attention, memory and communication	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine
PM8.3	Describe and discuss common behavior and mood changes following TBI	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
PM8.4	Describe metabolic co-morbidities like SIADH, diabetes mellitus, insipidus and endocrine dysfunction following TBI	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine
PM8.5	Describe the Vocational opportunities and community based rehabilitation following TBI	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			General Medicine
PM 9.1	Describe rehabilitative aspects as they pertain to the elderly including patients with dementia, depression, incontinence immobility and nutritional needs	K	KH	Y	Lecture, Small group	Written Viva voce			General Medicine Psychiatry
RADIOTHERAPY									
RT1.3	Enumerate, describe and discuss classification and staging of cancer (AJCC, FIGO etc.)	K	KH	Y	Lecture	Written/ Viva voce		Pathology	General Surgery General Medicine

Modifications are made as per the National Medical Commission (Under Graduate Medical Education Board, 2023) Notification No. U. 14021/8/2023-UGMEB dated 1st August 2023

1. Clinical Posting

Year	Post-Revision	Major Changes
2 nd MBBS	9 weeks	Duration of Clinical Postings increase to 9 weeks
3 rd Professional MBBS Part-I	4 weeks	-
3 rd Professional MBBS Part-II	14 weeks	Duration of Clinical Postings increase to 14 weeks

2. Teaching Hours

Sr. No.	Year	Post-Revision				Major Changes
		Lecture Hours	SGT/ Tut Hours	SDL Hours	Total	
1	2 nd Professional MBBS	20	0	0	20	<ul style="list-style-type: none"> Lecture Hours decrease from 25 to 20.
2	3 rd PART-1 Professional MBBS	30	50	10	90	<ul style="list-style-type: none"> Lecture Hours decrease from 25 to 30. SGT/Tut Hours increase from 35 to 50. SDL Hours increase from 5 to 10.
3	3 rd PART-1 Professional MBBS	95	155	55	305	<ul style="list-style-type: none"> Lecture Hours decrease from 70 to 95. SGT/Tut Hours increase from 125 to 155. SDL Hours increase from 15 to 55.

Approved University and Preliminary Theory Examination Pattern for Medicine Subject Paper-I & Paper-II

“PAPER – I”		
“SECTION – A”		
20 MCQs of 01 Mark Each	20 x 1 Marks	20 - Marks
“SECTION – B”		
1 LAQ (Structured Case Base)	01 x 15 Marks	15 - Marks
4 SAQs of 05 Marks Each (Any 4 out of 5) (At Least 2 Clinical Reasoning)	04 x 05 Marks	20 - Marks
“SECTION – C”		
2 LAQs of 15 Marks Each (Structured Case Base)	02 x 15 Marks	30 - Marks
3 SAQ of 05 Marks Each (Anyone Should be Clinical Reasoning, 1 AETCOM)	03 x 05 Marks	15 - Marks
Total		100 -Marks

Approved University and Preliminary Theory Examination Pattern for Medicine Subject Paper-II

“PAPER – II”		
“SECTION – A”		
20 MCQs of 01 Mark Each – 14 General Medicines, 2-DVL, 2-Respiratory Medicine and 2-Psychiatry.	20 x 01 Marks	20 - Marks
“SECTION – B”		
1 LAQ (Structured Case Base	01 x 15 Marks	15 - Marks
4 SAQs of 05 Marks Each (Any 4 out of 5) (At Least 2 Clinical Reasoning)	04 x 05 Marks	20 - Marks
“SECTION – C”		
3 SAQs of 05 Marks Each (Any 3 out of 4) -DVL	03 x 05 Marks	15 - Marks
3 SAQs of 05 Marks Each (Any 03 out of 04) -Psychiatry	03 x 05 Marks	15 - Marks
3 SAQs of 05 Marks Each (Any 3 out of 4) -Respiratory Medicine	03 x 05 Marks	15 - Marks
Total		100 -Marks

Note : Paper 2 Section C SAQ Allied subjects - Respiratory Medicine , Dermatology & Psychiatry will be included - 45 marks

Approved University Practical Examination Pattern of Medicine Subject

Long Case	Short Case-I	Short Case-II	OSCE* 4 Stations(15x4)	Viva (Table-I Instrument, Drugs, Emergencies, Table-II-X-ray, ECGs, Laboratory Reports) (2 Tables of 20 Marks Each)	Practical Total
50	25	25	60	40	200 Marks

OSCE Stations may include General examination, Local examination, psychomotor, skills, Communications skills, AETCOM etc

OSCE-I-Clinical Skills

OSCE-II- Certifiable Procedural Skills.

OSCE-III- Certifiable Procedural Skill

OSCE-IV-AETCOM related skills.

Syllabus for Third Professional MBBS Part-II University Theory Examination Pattern. Paper-I & II

THEORY PAPER - I	
CVS Heart Failure	IM1.1 to IM1.30
CVS-Acute Myocardial Infarction/IHD	IM2.1 to IM2.24
CVS-Hypertension	IM8.1 to IM8.20
Fever and Febrile Syndrome	IM4.1 to IM4.26
HIV	IM6.1 to IM6.23
Infection	IM25.1 to IM25.13
GI-Liver Disease	IM5.1 to IM5.18
GI-GI Bleed	IM15.1 to IM 15.18
GI-Diarrheal Disorders	IM16.1 to IM16.17
Nutrition & Vitamin Deficiencies	IM23.1 to IM23.5
Nutrition Obesity	IM14.1 to IM14.15
Geriatrics	IM24.1 to IM24.22
Hematology Anemia	IM9.1 to IM9.21
Common Malignancies	IM13.1 to IM13.19
Endocrine Diabetes Mellitus	IM11.1 to IM11.24
Endocrine - Thyroid Dysfunction	IM12.1 to IM12.15

Sr. No.	Competencies No (AETCOM)-Topic	Topic Description
1	AETCOM Module 4.1 A	The Student Should be able to: Demonstrate ability to Communicate to patients in a patient, respectful, nonthreatening, non-judgmental and empathetic manner.
2	AETCOM Module 4.1 B	The Student should be able to: Communicate diagnostic and therapeutic options to patient and family in a simulated environment.
3	AETCOM Module 4.3	The Student should be able: to Identify and discuss medico-legal, socio-economic and ethical issues as it pertains to organ donation

THEORY PAPER - II	
CNS-Headache	IM 17.1 to IM17.14
CNS-CVA	IM 18.1 to IM18.17
CNS Movement Disorders	IM 19.1 to 19.9
Nephrology - Acute Kidney Injury and Chronic Renal Failure	IM 10.1 to IM 10.31
Mineral, Fluid Electrolyte and Acid base Disorder	IM 22.1 to IM 22.13
Rheumatologic Problems	IM 7.1 to IM 7.27
Toxicology - Envenomation	IM 20.1 to IM 20.9
Toxicology Poisoning	IM 21.1 to IM 21.8
Role of Physicians in Community	IM 26.1 to IM 26.49
RS- Pneumonia	IM 3.1 to IM 3.19

THEORY PAPER-II - SECTION-C: Theory Paper-II section "C" will contain separate section comprising of questions from Dermatology Venereology and Leprosy, Psychiatry and Respiratory Medicine including tuberculosis.

Dermatology, Venerology and Leprosy	DR1.1 to DR 18.2
Psychiatry	PS1.1 to 19.6
Respiratory Medicine	CT1.1 to 2.28

Note: Questions based on topics covered in integrated teaching sessions and AETCOM will be asked in both Paper -1 and / or Paper – 2.

Pandemic Module for the Department of General Medicine

Period	Module	Broad areas	No. of hours	Major department(s) to coordinate
Phase II	2.5	Therapeutic strategies including new drug development	6	Pharmacology with General Medicine
Phase III Part 2	4.1	Care of patients during Pandemics	6	General Medicine
	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	

Note: Module 2.5 Therapeutic strategies including new drug development will be taken by the Department of Pharmacology with vertical integration with the Department of General Medicine.

Phase III Part – 2 Pandemic Module Details

Sr. No.	Competency Number	Competency	Hourse	Total Hours
	4.1	Care of patients during Pandemics	06-Hours – During Clinical posting	6
	4.2	Emergency Procedures	06-Hours – During Clinical posting 02-Hours – Tutorials	8
	4.3	Death related management	02-Hours – Tutorials	2
	4.4	Communications and media management	04-Hours – During Clinical posting	4
	4.5	Intensive Care Management during Pandemics	02-Hours – During Clinical posting 02-Hours – Tutorials	4
	4.6	Palliative Care during Pandemics	02-Hours – During Clinical posting 02-Hours – Tutorials	4
Total =			20 Hours of Clinical Posting + 08 Hours Tutorials	

Note: Integrated teaching topics are the same as per the Old UG CBME Curriculum.

Passing criteria for the University Final Examination

Either Theory minimum 40% and Practical Minimum 60% = Aggregate 50%

Or Theory minimum 60% and Practical Minimum 40% = Aggregate 50%

PEDIATRICS

PEDIATRICS

a. 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.

b. Broad subject specific objectives:

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

- Describe the normal Growth and Development during fetal life, Neonatal period, Childhood and Adolescence and the deviations thereof.
- Describe the common Paediatric disorders and emergencies in terms of Epidemiology.

- Etiopathogenesis, Clinical manifestations, Diagnosis and also describe the rational therapy and rehabilitation services.
- Workout age related requirements of calories, nutrients, fluids, dosages of drugs etc. in health and disease.
- Describe preventive strategies for common infectious disorders, Malnutrition, Genetic and Metabolic disorders, Poisonings, Accidents and Child abuse.
- Outline national programs related to child health including Immunization programs

c. Skills

At the end of the course, the students shall be able to:-

- Take detailed Paediatric and Neonatal history and conduct an appropriate physical examination of children and neonates, make clinical diagnosis, conduct common bedside investigative procedures, interpret common laboratory investigations, plan and institute therapy.
- Take anthropometric measurements, resuscitate newborn, prepare oral rehydration solution, perform tuberculin test, administer vaccines available under current National programs, perform venesection, start intravenous fluids and provide nasogastric feeding.
- Conduct diagnostic procedures such as lumbar puncture, liver and kidney biopsy, bone marrow aspiration, pleural and ascitic tap.
- Distinguish between normal Newborn babies and those requiring special care and institute early care to all newborn babies including care of preterm and low birth weight babies, provide correct guidance and counselling about breastfeeding and Complementary feeding.
- Provide ambulatory care to all not so sick children, identify indications for specialized/ inpatient care and ensure timely referral to those who require hospitalisation.

d. 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.

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PEDIATRICS (CODE: PE)									
PEDIATRICS									
Topic: Normal Growth and Development, Number of competencies : (07), Number of procedures that require certification: (02)									
PE1.1	Define the terminologies Growth and development and discuss the factors affecting normal growth and development	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE1.2	Discuss and describe the patterns of growth in infants, children and adolescents	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE1.4	Perform Anthropometric measurements, document in growth charts and interpret	S	P	Y	Small group discussion	Document in Logbook	3		
PE1.5	Define development and discuss the normal developmental milestones with respect to motor, behaviour, social, adaptive and language	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE1.6	Discuss the methods of assessment of development	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE1.7	Perform Developmental assessment and interpret	S	P	N	Bedside clinics, Skills Lab	Document in Logbook	3		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
Topic: Common problems related to Growth, Number of competencies:(06), Number of procedures that require certification: (NIL)									
PE2.1	Discuss the etio-pathogenesis, clinical features and management of a child who fails to thrive	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE2.2	Assessment of a child with failing to thrive including eliciting an appropriate history and examination	S	SH	Y	Bedside clinics	Skills Station			
PE2.3	Counselling a parent with failing to thrive child	A/C	SH	Y	OSPE	Document in Log book		AETCOM	
PE2.4	Discuss the etio-pathogenesis, clinical features and management of a child with short stature	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE2.5	Assessment of a child with short stature: Elicit history, perform examination, document and present	S	SH	Y	Bedside clinics, Skill lab	Skill Assessment			
PE2.6	Enumerate the referral criteria for growth related problems	K	K	Y	Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
Topic : Common problems related to Development - 1 (Developmental delay, Cerebral palsy), Number of competencies:(08), Number of procedures that require certification: (NIL)									
PE3.1	Define, enumerate and discuss the causes of developmental delay and disability including intellectual disability in children	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE3.2	Discuss the approach to a child with developmental delay	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE3.3	Assessment of a child with developmental delay - Elicit document and present history	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE3.4	Counsel a parent of a child with developmental delay	S	SH	Y	DOAP session	Document in Log Book			
PE3.5	Discuss the role of the child developmental unit in management of developmental delay	K	K	N	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
PE3.6	Discuss the referral criteria for children with developmental delay	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE3.7	Visit a Child Developmental Unit and observe its functioning	S	KH	Y	Lecture, Small group discussion	Logbook Entry		Community Medicine	
PE3.8	Discuss the etio-pathogenesis, clinical presentation and multi- disciplinary approach in the management of Cerebral palsy	K	KH	Y	Lecture, Small group, Bedside clinics	Written/ Viva voce			Physical Medicine & Rehabilitation
Topic: Common problems related to Development-2 (Scholastic backwardness, Learning Disabilities, Autism, ADHD) Number of competencies: (06), Number of procedures that require certification: (NIL)									
PE4.1	Discuss the causes and approach to a child with scholastic backwardness	K	K	N	Lecture, Small group discussion	Written			
PE4.2	Discuss the etiology, clinical features, diagnosis and management of a child with Learning Disabilities	K	K	N	Lecture, Small group discussion	Written			
PE4.3	Discuss the etiology, clinical features, diagnosis and management of a child with Attention Deficit Hyperactivity Disorder (ADHD)	K	K	N	Lecture, Small group discussion	Written			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE4.4	Discuss the etiology, clinical features, diagnosis and management of a child with Autism	K	K	N	Lecture, Small group discussion	Written			
PE4.5	Discuss the role of Child Guidance clinic in children with Developmental problems	K	K	N	Lecture, Small group discussion	Written/ Viva voce		Psychiatry	
PE4.6	Visit to the Child Guidance Clinic	S	KH	N	Lecture, Small group discussion	Document in Log Book			
Topic: Common problems related to behavior, Number of competencies: (11), Number of procedures that require certification: (NIL)									
PE5.1	Describe the clinical features, diagnosis and management of thumb sucking	K	K	N	Lecture, Small group discussion	Written			
PE5.2	Describe the clinical features, diagnosis and management of Feeding problems	K	K	N	Lecture, Small group discussion	Written			
PE5.3	Describe the clinical features, diagnosis and management of nail biting	K	K	N	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE5.4	Describe the clinical features, diagnosis and management of Breath Holding spells	K	K	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE5.5	Describe the clinical features, diagnosis and management of temper tantrums	K	K	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE5.6	Describe the clinical features, diagnosis and management of Pica	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
PE5.7	Describe the clinical features, diagnosis and management of Fussy infant	K	K	N	Lecture, Small group discussion	Written			Psychiatry
PE5.8	Discuss the etiology, clinical features and management of Enuresis	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
PE5.9	Discuss the etiology, clinical features and management of Encopresis	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
PE5.10	Discuss the role of child guidance clinic in children with behavioural problems and the referral criteria	K	K	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE5.11	Visit to Child Guidance Clinic and observe functioning	K	KH	N	Lecture, Small group discussion	Document in Log Book			
Topic: Adolescent Health & common problems related to Adolescent Health, Number of competencies: (13), Number of procedures that require certification: (NIL)									
PE6.1	Define Adolescence and stages of adolescence	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE6.2	Describe the physical, physiological and psychological changes during adolescence (Puberty)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.3	Discuss the general health problems during adolescence	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE6.4	Describe adolescent sexuality and common problems related to it	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.5	Explain the Adolescent Nutrition and common nutritional problems	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE6.6	Discuss the common Adolescent eating disorders (Anorexia Nervosa, Bulimia)	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.7	Describe the common mental health problems during adolescence	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.8	Respecting patient privacy and maintaining confidentiality while dealing with adolescence	A	SH	Y	Bedside clinics	Document in log book			AETCOM
PE6.9	Perform routine Adolescent Health checkup including eliciting history, performing examination including SMR (Sexual Maturity Rating), growth assessments (using Growth charts) and systemic exam including thyroid and Breast exam and the HEADSS screening	S	SH	Y	Bedside clinics	Skills station			
PE6.10	Discuss the objectives and functions of AFHS (Adolescent Friendly Health Services) and the referral criteria	K	K	N	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE6.11	Visit to the Adolescent Clinic	S	KH	Y	DOAP session	Document in Log Book			
PE6.12	Enumerate the importance of obesity and other NCD in adolescents	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE6.13	Enumerate the prevalence and the importance of recognition of sexual drug abuse in adolescents and children	K	K	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatr y
Topic: To promote and support optimal Breast feeding for Infants, Number of competencies : (11), Number of procedures that require certification: (01)									
PE7.1	Awareness on the cultural beliefs and practices of breast feeding	K	K	N	Lecture, Small group discussion	Viva			Obstetrics & Gynaecol ogy
PE7.2	Explain the physiology of lactation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiolog y	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE7.3	Describe the composition and types of breast milk and discuss the differences between cow's milk and Human milk	K	KH	Y	Lecture, debate	Written/ Viva voce		Physiology	
PE7.4	Discuss the advantages of breast milk	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE7.5	Observe the correct technique of breast feeding and distinguish right from wrong techniques	S	P	Y	Bedside clinics, Skills lab	Skill Assessment	3		
PE7.6	Enumerate the baby friendly hospital initiatives	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE7.7	Perform breast examination and identify common problems during lactation such as retracted nipples, cracked nipples, breast engorgement, breast abscess	S	SH	Y	Bedside clinics, Skill Lab	Skill Assessment			Obstetrics & Gynaecology, AETCOM
PE7.8	Educate mothers on ante natal breast care and prepare mothers for lactation	A/C	SH	Y	DOAP session	Document in Log Book			AETCOM

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE7.9	Educate and counsel mothers for best practices in Breast feeding	A/C	SH	Y	DOAP session	Document in Log Book			Obstetrics & Gynaecology, AETCOM
PE7.10	Respects patient privacy	A	SH	Y	DOAP session	Document in Log Book			AETCOM
PE7.11	Participate in Breast Feeding Week Celebration	A	SH	Y	DOAP session	Document in Log Book			
Topic: Complementary Feeding, Number of competencies : (05), Number of procedures that require certification: (NIL)									
PE8.1	Define the term Complementary Feeding	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
PE8.2	Discuss the principles, the initiation, attributes, frequency, techniques and hygiene related to Complementary Feeding including IYCF	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE8.3	Enumerate the common complimentary foods	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Communit y Medicine	
PE8.4	Elicit history on the Complementary Feeding habits	S	SH	Y	Bedside clinics, Skills lab	Skill Assessmen t		Communit y Medicine	
PE8.5	Counsel and educate mothers on the best practices in Complimentary Feeding	A/C	SH	Y	DOAP session	Document in Log Book		Communit y Medicine	
Topic: Normal nutrition, assessment and monitoring, Number of competencies : (07), Number of procedures that require certification: (NIL)									
PE9.1	Describe the age related nutritional needs of infants, children and adolescents including micronutrients and vitamins	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Communit y Medicine, Biochemis try	
PE9.2	Describe the tools and methods for assessment and classification of nutritional status of infants, children and adolescents	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Communit y Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE9.3	Explains the Calorific value of common Indian foods	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE9.4	Elicit document and present an appropriate nutritional history and perform a dietary recall	S	SH	Y	Bedside clinic, Skills lab	Skill Assessmen t		Communit y Medicine	
PE9.5	Calculate the age related calorie requirement in Health and Disease and identify gap	S	SH	Y	Bedside clinics, Small group discussion	Skill assessmen t		Communit y Medicine	
PE9.6	Assess and classify the nutrition status of infants, children and adolescents and recognize deviations	S	SH	Y	Bedside clinic, Small group discussion	Skill Assessmen t		Communit y Medicine	
PE9.7	Plan an appropriate diet in health and disease	S	SH	N	Bedside clinic, Small group discussion	Document in logbook		Communit y Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
Topic: Provide nutritional support, assessment and monitoring for common nutritional problems Number of competencies: (06), Number of procedures that require certification: (NIL)									
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)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiolog y, Biochemis try	
PE10.2	Outline the clinical approach to a child with SAM and MAM	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiolog y, Biochemis try	
PE10.3	Assessment of a patient with SAM and MAM, diagnosis, classification and planning management including hospital and community based intervention, rehabilitation and prevention	S	SH	Y	Bedside clinics, Skills lab	Skill station		Physiolog y, Biochemis try	
PE10.4	Identify children with under nutrition as per IMNCI criteria and plan referral	S	SH	Y	DOAP session	Document in log book		Communit y Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE10.5	Counsel parents of children with SAM and MAM	S	SH	Y	Bedside clinic, Skills Station	Document in Log book		AETCOM	
PE10.6	Enumerate the role of locally prepared therapeutic diets and ready to use therapeutic diets	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
Topic: Obesity in children, Number of competencies: (06), Number of procedures that require certification: (01)									
PE11.1	Describe the common etiology, clinical features and management of obesity in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Biochemistry, Pathology	
PE11.2	Discuss the risk approach for obesity and discuss the prevention strategies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology	
PE11.3	Assessment of a child with obesity with regard to eliciting history including physical activity, charting and dietary recall	S	SH	Y	Bedside clinics, Standardized patients	Document in log book			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE11.4	Examination including calculation of BMI, measurement of waist hip ratio, identify gin external markers like acanthosis, striae, pseudogynaecomastia etc	S	SH	Y	Bedside clinics, Standardized patients, Videos	Skills Station			
PE11.5	Calculate BMI, document in BMI chart and interpret	S	P	Y	Bedside clinics, Small group discussion	Document in log book	3		
PE11.6	Discuss criteria for referral	K	K	Y	Small group discussion	Viva voce			
Topic: Micronutrients in Health and disease-1 (Vitamins ADEK, B Complex and C) Number of competencies: (21), Number of procedures that require certification: (NIL)									
PE12.1	Discuss the RDA, dietary sources of Vitamin A and their role in Health and disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE12.2	Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin A	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE12.3	Identify the clinical features of dietary deficiency / excess of Vitamin A	S	SH	Y	Bedside clinics, Small group discussion	Document in log book		Biochemis try	
PE12.4	Diagnose patients with Vitamin A deficiency, classify and plan management	S	SH	N	Bedside clinics, Skill Station	Document in log book		Biochemis try	
PE12.5	Discuss the Vitamin A prophylaxis program and their recommendations	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE12.6	Discuss the RDA, dietary sources of Vitamin D and their role in health and disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE12.7	Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin D (Rickets and Hypervitaminosis D)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try, Physiolog y, Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE12.8	Identify the clinical features of dietary deficiency of Vitamin D	S	SH	Y	Bedside clinics, Skills lab	Document in log book		Biochemis try, Physiology, Pathology	
PE12.9	Assess patients with Vitamin D deficiency, diagnose, classify and plan management	S	SH	Y	Bedside clinics	Document in log book		Biochemis try, Physiology, Pathology	
PE12.10	Discuss the role of screening for Vitamin D deficiency	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE12.11	Discuss the RDA, dietary sources of Vitamin E and their role in health and disease	K	K	N	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE12.12	Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin E	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE12.13	Discuss the RDA, dietary sources of Vitamin K and their role in health and disease	K	K	N	Lecture, Small group discussion	Written/ Viva voce		Biochemis try, Physiolog y, Pathology	
PE12.14	Describe the causes, clinical features, diagnosis management and prevention of deficiency of Vitamin K	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Biochemis try, Physiolog y, Pathology	
PE12.15	Discuss the RDA, dietary sources of Vitamin B and their role in health and disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE12.16	Describe the causes, clinical features, diagnosis and management of deficiency of B complex Vitamins	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE12.17	Identify the clinical features of Vitamin B complex deficiency	S	SH	Y	Bedside clinics, Skills lab	Document in log book		Biochemis try	
PE12.18	Diagnose patients with Vitamin B complex deficiency and plan management	S	SH	Y	Bedside clinics, Skills lab	Document in log book		Biochemis try	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE12.19	Discuss the RDA , dietary sources of Vitamin C and their role in Health and disease	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE12.20	Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin C (scurvy)	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE12.21	Identify the clinical features of Vitamin C deficiency	S	SH	N	Bedside clinics, Skill lab	Document in log book		Biochemis try	
Topic: Micronutrients in Health and disease -2: Iron, Iodine, Calcium, Magnesium Number of competencies: (14), Number of procedures that require certification: (NIL)									
PE13.1	Discuss the RDA, dietary sources of Iron and their role in health and disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Biochemis try	
PE13.2	Describe the causes, diagnosis and management of Fe deficiency	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Biochemis try	
PE13.3	Identify the clinical features of dietary deficiency of Iron and make a diagnosis	S	SH	Y	Bedside clinics, Skills lab	Document in log book		Pathology, Biochemis try	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE13.4	Interpret hemogram and Iron Panel	S	SH	Y	Bedside clinic, Small group discussion	Skill Assessmen t		Pathology, Biochemis try	
PE13.5	Propose a management plan for Fe deficiency anaemia	S	SH	Y	Bedside clinics, Skills lab	Skill Assessmen t		Pathology, Pharmaco logy	
PE13.6	Discuss the National anaemia control program and its recommendations	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmaco logy, Communit y Medicine	
PE13.7	Discuss the RDA , dietary sources of Iodine and their role in Health and disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE13.8	Describe the causes, diagnosis and management of deficiency of Iodine	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE13.9	Identify the clinical features of Iodine deficiency disorders	S	SH	N	Lecture, Bedside clinic	Written/ Viva voce		Biochemis try	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE13.10	Discuss the National Goiter Control program and their recommendations	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try, Communit y Medicine	
PE13.11	Discuss the RDA, dietary sources of Calcium and their role in health and disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE13.12	Describe the causes, clinical features, diagnosis and management of Ca Deficiency	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE13.13	Discuss the RDA, dietary sources of Magnesium and their role in health and disease	K	K	N	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	
PE13.14	Describe the causes, clinical features, diagnosis and management of Magnesium Deficiency	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Biochemis try	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
Topic: Toxic elements and free radicals and oxygen toxicity, Number of competencies: (05), Number of procedures that require certification (NIL)									
PE14.1	Discuss the risk factors, clinical features, diagnosis and management of Lead Poisoning	K	KH	N	Lecture	Written/ Viva voce		Pharmacology	
PE14.2	Discuss the risk factors, clinical features, diagnosis and management of Kerosene ingestion	K	KH	N	Lecture	Written/ Viva voce		ENT	
PE14.3	Discuss the risk factors, clinical features, diagnosis and management of Organophosphorous poisoning	K	KH	N	Lecture	Written/ Viva voce		Pharmacology	General Medicine
PE14.4	Discuss the risk factors, clinical features, diagnosis and management of paracetamol poisoning	K	KH	N	Lecture	Written/ Viva voce		Pharmacology	
PE14.5	Discuss the risk factors, clinical features, diagnosis and management of Oxygen toxicity	K	KH	N	Lecture	Written/ Viva voce			
Topic: Fluid and electrolyte balance, Number of competencies : (07), Number of procedures that require certification : (NIL)									
PE15.1	Discuss the fluid and electrolyte requirement in health and disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE15.2	Discuss the clinical features and complications of fluid and electrolyte imbalance and outline the management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE15.3	Calculate the fluid and electrolyte requirement in health	S	SH	Y	Bedside clinics, Small group discussion	Skill Assessment			
PE15.4	Interpret electrolyte report	S	SH	Y	Bedside clinics, Small group discussion	Skill Assessment			
PE15.5	Calculate fluid and electrolyte imbalance	S	SH	Y	Bedside clinics, Small group discussion	Skill Assessment			
PE15.6	Demonstrate the steps of inserting an IV cannula in a model	S	SH	Y	Skills Lab	mannequin			
PE15.7	Demonstrate the steps of inserting an interosseous line in a mannequin	S	SH	Y	Skills Lab	mannequin			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
Topic: Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Guideline Number of competencies : (03), Number of procedures that require certification : (NIL)									
PE16.1	Explain the components of Integrated Management of Neonatal and Childhood Illnesses (IMNCI) guidelines and method of Risk stratification	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE16.2	Assess children < 2 months using IMNCI Guidelines	S	SH	Y	DOAP session	Document in log Book			
PE16.3	Assess children >2 to 5 years using IMNCI guidelines and Stratify Risk	S	SH	Y	DOAP session	Document in log Book			
Topic : The National Health programs, NHM Number of competencies : (02), Number of procedures that require certification: (NIL)									
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Communit y Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE17.2	Analyse the outcomes and appraise the monitoring and evaluation of NHM	K	KH	Y	Debate	Written/ Viva voce		Communit y Medicine	
Topic : The National Health Programs : RCH Number of competencies : (08), Number of procedures that require certification: (NIL)									
PE18.1	List and explain the components, plan, outcome of Reproductive Child Health (RCH) program and appraise its monitoring and evaluation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Communit y Medicine	Obstetrics & Gynaecol ogy
PE18.2	Explain preventive interventions for child survival and safe motherhood	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Communit y Medicine	Obstetrics & Gynaecol ogy
PE18.3	Conduct Antenatal examination of women independently and apply at-risk approach in antenatal care	S	SH	Y	Bedside clinics	Skill station		Communit y Medicine	Obstetrics & Gynaecol ogy
PE18.4	Provide intra-natal care and conduct a normal delivery in a simulated environment	S	SH	Y	DOAP session, Skills lab	Document in Log Book		Communit y Medicine	Obstetrics & Gynaecol ogy

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE18.5	Provide intra-natal care and observe the conduct of a normal delivery	S	SH	Y	DOAP session	Document in Log Book			Obstetrics & Gynaecology
PE18.6	Perform Postnatal assessment of newborn and mother, provide advice on breast feeding, weaning and on family planning	S	SH	Y	Bed side clinics, Skill Lab	Skill Assessment		Community Medicine	Obstetrics & Gynaecology
PE18.7	Educate and counsel caregivers of children	A	SH	Y	Postnatal ward, standardized patient	Skill Assessment		AETCOM	
PE18.8	Observe the implementation of the program by visiting the Rural Health Centre	S	KH	Y	Bed side clinics, Skill Lab	Document in log book		Community Medicine	Obstetrics & Gynaecology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
Topic: National Programs, RCH - Universal Immunizations program, Number of competencies: (16), Number of procedures that require certification: (01)									
PE19.1	Explain the components of the Universal Immunization Program and the National Immunization Program	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Communit y Medicine, Microbiolo gy, Biochemis try	
PE19.2	Explain the epidemiology of Vaccine preventable diseases	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Communit y Medicine, Microbiolo gy, Biochemis try	
PE19.3	Vaccine description with regard to classification of vaccines, strain used, dose, route, schedule, risks, benefits and side effects, indications and contraindications	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Communit y Medicine, Microbiolo gy, Biochemis try	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE19.4	Define cold chain and discuss the methods of safe storage and handling of vaccines	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Communit y Medicine, Microbiolo gy, Biochemis try	
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Communit y Medicine, Microbiolo gy, Biochemis try	
PE19.6	Assess patient for fitness for immunization and prescribe an age appropriate immunization schedule	S	P	Y	Out Patient clinics Skills lab	Skill Assessmen t	5		
PE19.7	Educate and counsel a patient for immunization	A/C	SH	Y	DOAP session	Document in Log Book			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE19.8	Demonstrate willingness to participate in the National and sub national immunisation days	A	SH	Y	Lecture, Small group discussion	Document in Log Book		Communit y Medicine	
PE19.9	Describe the components of safe vaccine practice – Patient education/ counselling; adverse events following immunization, safe injection practices, documentation and Medico-legal implications	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			AETCOM
PE19.10	Observe the handling and storing of vaccines	S	SH	Y	DOAP session	Written/ Viva voce			
PE19.11	Document Immunization in an immunization record	S	SH	Y	Out Patient clinics, Skills lab	Skill assessment			
PE19.12	Observe the administration of UIP vaccines	S	SH	Y	DOAP session	Document in Log Book		Communit y Medicine	
PE19.13	Demonstrate the correct administration of different vaccines in a mannequin	S	SH	Y	DOAP session	Document in Log Book			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE19.14	Practice Infection control measures and appropriate handling of the sharps	S	SH	Y	DOAP session	Document in Log Book			
PE19.15	Explain the term implied consent in Immunization services	K	K	Y	Small group discussion	Written/ Viva voce			
PE19.16	Enumerate available newer vaccines and their indications including pentavalent pneumococcal, rotavirus, JE, typhoid IPV & HPV	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
Topic: Care of the Normal Newborn, and High risk New born Number of competencies: (20), Number of procedures that require certification: (NIL)									
PE20.1	Define the common neonatal nomenclatures including the classification and describe the characteristics of a Normal Term Neonate and High Risk Neonates	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.2	Explain the care of a normal neonate	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE20.3	Perform Neonatal resuscitation in a manikin	S	SH	Y	DOAP session	Log book entry of Performance			
PE20.4	Assessment of a normal neonate	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE20.5	Counsel / educate mothers on the care of neonates	A/C	SH	Y	DOAP session	Log book documentation			
PE20.6	Explain the follow up care for neonates including Breast Feeding, Temperature maintenance, immunization, importance of growth monitoring and red flags	S	SH	Y	DOAP session	Log book entry			Obstetrics & Gynaecology
PE20.7	Discuss the etiology, clinical features and management of Birth asphyxia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE20.8	Discuss the etiology, clinical features and management of respiratory distress in New born including meconium aspiration and transient tachypnoea of newborn	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.9	Discuss the etiology, clinical features and management of Birth injuries	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.10	Discuss the etiology, clinical features and management of Hemorrhagic disease of New born	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.11	Discuss the clinical characteristics, complications and management of Low birth weight (preterm and Small for gestation)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.12	Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypothermia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE20.13	Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypoglycemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.14	Discuss the etiology, clinical features and management of Neonatal hypocalcemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.15	Discuss the etiology, clinical features and management of Neonatal seizures	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.16	Discuss the etiology, clinical features and management of Neonatal Sepsis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.17	Discuss the etiology, clinical features and management of Perinatal infections	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE20.18	Identify and stratify risk in a sick neonate using IMNCL guidelines	S	SH	Y	DOAP session	Document in Log Book			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE20.19	Discuss the etiology, clinical features and management of Neonatal hyperbilirubinemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Genito-Urinary system, Number of competencies : (17), Number of procedures that require certification: (NIL)									
PE21.1	Enumerate the etio-pathogenesis, clinical features, complications and management of Urinary Tract infection in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
PE21.2	Enumerate the etio-pathogenesis, clinical features, complications and management of acute post-streptococcal Glomerular Nephritis in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE21.3	Discuss the approach and referral criteria to a child with Proteinuria	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE21.4	Discuss the approach and referral criteria to a child with Hematuria	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
PE21.5	Enumerate the etio-pathogenesis, clinical features, complications and management of Acute Renal Failure in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE21.6	Enumerate the etio-pathogenesis, clinical features, complications and management of Chronic Renal Failure in Children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE21.7	Enumerate the etio-pathogenesis, clinical features, complications and management of Wilms Tumor	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE21.8	Elicit, document and present a history pertaining to diseases of the Genitourinary tract	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			General Surgery
PE21.9	Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Icthyosis, anasarca	S	SH	Y	Bedside clinics, Skills lab	Document in log book			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE21.10	Analyse symptom and interpret the physical findings and arrive at an appropriate provisional / differential diagnosis	S	SH	Y	Bedside clinics, Skills lab	Log book			
PE21.11	Perform and interpret the common analytes in a Urine examination	S	SH	Y	Bedside clinics, Skills lab	Skill assessment		Biochemistry, Pathology	
PE21.12	Interpret report of Plain X Ray of KUB	S	SH	Y	Bedside clinics, Skills lab	Log book		Radiodiagnosis	
PE21.13	Enumerate the indications for and Interpret the written report of Ultrasonogram of KUB	S	SH	Y	Bedside clinics, Skills lab	Log book		Radiodiagnosis	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
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	S	SH	Y	Bedside clinics, Skills lab	Log book assessment			General Surgery
PE21.15	Discuss and enumerate the referral criteria for children with genitourinary disorder	S	SH	Y	Bedside clinics, Skills lab	Log book assessment			
PE21.16	Counsel / educate a patient for referral appropriately	A/C	SH	Y	DOAP session	Document in Log book		AETCOM	
PE21.17	Describe the etiopathogenesis, grading, clinical features and management of hypertension in children	K	KH	Y	Lecture, Small group discussion	Short notes			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
Topic: Approach to and recognition of a child with possible Rheumatologic problem, Number of competencies: (03), Number of procedures that require certification : (NIL)									
PE22.1	Enumerate the common Rheumatological problems in children. Discuss the clinical approach to recognition and referral of a child with Rheumatological problem	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE22.2	Counsel a patient with Chronic illness	S	SH	N	Bedside clinics Skills lab	Log book			
PE22.3	Describe the diagnosis and management of common vasculitic disorders including Henoch Schonlein Purpura, Kawasaki Disease, SLE, JIA	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
Topic : Cardiovascular system- Heart Diseases, Number of competencies : (18), Number of procedures that require certification : (NIL)									
PE23.1	Discuss the Hemodynamic changes, clinical presentation, complications and management of Acyanotic Heart Diseases –VSD, ASD and PDA	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE23.2	Discuss the Hemodynamic changes, clinical presentation, complications and management of Cyanotic Heart Diseases – Fallot's Physiology	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology	
PE23.3	Discuss the etio-pathogenesis, clinical presentation and management of cardiac failure in infant and children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology	
PE23.4	Discuss the etio-pathogenesis, clinical presentation and management of Acute Rheumatic Fever in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology	
PE23.5	Discuss the clinical features, complications, diagnosis, management and prevention of Acute Rheumatic Fever	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology	
PE23.6	Discuss the etio-pathogenesis, clinical features and management of Infective endocarditis in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Pathology, Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
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	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
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	S	SH	Y	Bedside clinics, Skills Lab	Skill Assessment			
PE23.9	Record pulse, blood pressure, temperature and respiratory rate and interpret as per the age	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
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	S	SH	Y	Bedside clinics, Skills lab	Skill station			
PE23.11	Develop a treatment plan and prescribe appropriate drugs including fluids in cardiac diseases, anti -failure drugs, and inotropic agents	S	SH	Y	Bedside clinics, Skills lab	log book			
PE23.12	Interpret a chest X ray and recognize Cardiomegaly	S	SH	Y	Bedside clinics, Skills lab	Log book entry		Radiodiagnosis	
PE23.13	Choose and Interpret blood reports in Cardiac illness	S	P	Y	Bedside clinics, Small group discussion	Log book entry			
PE23.14	Interpret Pediatric ECG	S	SH	Y	Bedside clinics, Skills lab	Log book entry			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE23.15	Use the ECHO reports in management of cases	S	SH	Y	Bedside clinics	Log book entry		Radiodiagnosis	
PE23.16	Discuss the indications and limitations of Cardiac catheterization	K	K	N	Small group discussion	Viva voce			
PE23.17	Enumerate some common cardiac surgeries like BT shunt, Potts and Waterston's and corrective surgeries	K	K	N	Small group discussion	Viva voce			
PE23.18	Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter	A	SH	Y	Small group discussion	Document in Log Book		AETCOM	
Topic: Diarrhoeal diseases and Dehydration, Number of competencies: (17), Number of procedures that require certification : (03)									
PE24.1	Discuss the etio-pathogenesis, classification, clinical presentation and management of diarrheal diseases in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Microbiology	
PE24.2	Discuss the classification and clinical presentation of various types of diarrheal dehydration	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Microbiology	
PE24.3	Discuss the physiological basis of ORT, types of ORS and the composition of various types of ORS	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE24.4	Discuss the types of fluid used in Paediatric diarrheal diseases and their composition	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE24.5	Discuss the role of antibiotics, antispasmodics, anti-secretory drugs, probiotics, anti-emetics in acute diarrheal diseases	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology, Microbiology	
PE24.6	Discuss the causes, clinical presentation and management of persistent diarrhoea in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
PE24.7	Discuss the causes, clinical presentation and management of chronic diarrhoea in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE24.8	Discuss the causes, clinical presentation and management of dysentery in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology, Microbiology	
PE24.9	Elicit, document and present history pertaining to diarrheal diseases	S	SH	Y	Bedside clinics, Skills lab	Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE24.10	Assess for signs of dehydration, document and present	S	SH	Y	Bedside clinics, Skills lab	Skill assessment			
PE24.11	Apply the IMNCI guidelines in risk stratification of children with diarrheal dehydration and refer	S	SH	Y	Bedside clinics, Skills lab	Document in Log book			
PE24.12	Perform and interpret stool examination including Hanging Drop	S	SH	N	Bedside clinics, Skills lab	Log book		Microbiology	
PE24.13	Interpret RFT and electrolyte report	S	SH	Y	Bedside clinics, Small group discussion	Document in Log Book			
PE24.14	Plan fluid management as per the WHO criteria	S	SH	Y	Bedside clinics, Small group activity	Skills Station			
PE24.15	Perform NG tube insertion in a manikin	S	P	Y	DOAP session	Document in Log book	2		
PE24.16	Perform IV cannulation in a model	S	P	Y	DOAP session	Document in Log book	2		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE24.17	Perform Interosseous insertion model	S	P	Y	DOAP session	Document in Log book	2		
Topic: Mal absorption, Number of competencies: (01), Number of procedures that require certification:(NIL)									
PE25.1	Discuss the etio-pathogenesis, clinical presentation and management of Malabsorption in Children and its causes including celiac disease	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Topic: Acute and chronic liver disorders Number of competencies : (13) Number of procedures that require certification: (NIL)									
PE26.1	Discuss the etio-pathogenesis, clinical features and management of acute hepatitis in children	K	KH	Y	Lecture, Small group activity	Written/ Viva voce		Pathology, Microbiolo gy	
PE26.2	Discuss the etio-pathogenesis, clinical features and management of Fulminant Hepatic Failure in children	K	KH	Y	Lecture, Small group activity	Written/ Viva voce		Pathology, Microbiolo gy	
PE26.3	Discuss the etio-pathogenesis, clinical features and management of chronic liver diseases in children	K	KH	Y	Lecture, Small group activity	Written/ Viva voce		Pathology, Microbiolo gy	
PE26.4	Discuss the etio-pathogenesis, clinical features and management of Portal Hypertension in children	K	KH	Y	Lecture, Small group activity	Written/ Viva voce		Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE26.5	Elicit document and present the history related to diseases of Gastrointestinal system	S	SH	Y	Bedside clinics, Skills lab	Skills Station			
PE26.6	Identify external markers for GI and Liver disorders e.g.. Jaundice, Pallor, Gynaecomastia, Spider angioma, Palmar erythema, Icthyosis, Caput medusa, Clubbing, Failing to thrive, Vitamin A and D deficiency	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE26.7	Perform examination of the abdomen, demonstrate organomegaly, ascites etc.	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE26.8	Analyse symptoms and interpret physical signs to make a provisional/ differential diagnosis	S	SH	Y	Bedside clinics, Skill lab	Skill Assessment			
PE26.9	Interpret Liver Function Tests, viral markers, ultra sonogram report	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment		Pathology	
PE26.10	Demonstrate the technique of liver biopsy in a Perform Liver Biopsy in a simulated environment	S	SH	Y	DOAP session	Document in log book			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE26.11	Enumerate the indications for Upper GI endoscopy	K	K	N	Small group discussion	Viva voce			
PE26.12	Discuss the prevention of Hep B infection – Universal precautions and Immunisation	K	KH	Y	Lecture, Small group activity	Written/ Viva voce		Microbiology	
PE26.13	Counsel and educate patients and their family appropriately on liver diseases	A/C	P	y	Bedside clinics, Skills lab	Document in log book			
Topic: Pediatric Emergencies – Common Pediatric Emergencies, Number of competencies : (35), Number of procedures that require certification:(10)									
PE27.1	List the common causes of morbidity and mortality in the under five children	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.2	Describe the etio-pathogenesis, clinical approach and management of cardiorespiratory arrest in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.3	Describe the etio-pathogenesis of respiratory distress in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE27.4	Describe the clinical approach and management of respiratory distress in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.5	Describe the etio-pathogenesis, clinical approach and management of Shock in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.6	Describe the etio-pathogenesis, clinical approach and management of Status epilepticus	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.7	Describe the etio-pathogenesis, clinical approach and management of an unconscious child	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.8	Discuss the common types, clinical presentations and management of poisoning in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.9	Discuss oxygen therapy, in Pediatric emergencies and modes of administration	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.10	Observe the various methods of administering Oxygen	S	KH	Y	Demonstration	Document in log book			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE27.11	Explain the need and process of triage of sick children brought to health facility	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.12	Enumerate emergency signs and priority signs	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.13	List the sequential approach of assessment of emergency and priority signs	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.14	Assess emergency signs and prioritize	S	SH	Y	DOAP session, Skills lab	Skills Assessment			
PE27.15	Assess airway and breathing: recognise signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting	S	P	Y	DOAP session, Skills lab	Skills Assessment	3		
PE27.16	Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment	S	P	Y	DOAP session, Skills Lab	Skills Assessment	3		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE27.17	Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate	S	P	Y	DOAP session, Skills Lab	Skills Assessmen t	3		
PE27.18	Assess airway and breathing: perform assisted ventilation by Bag	S	P	Y	DOAP session, Skills	Skills Assessmen t	3		
	and mask in a simulated environment				lab				
PE27.19	Check for signs of shock i.e. pulse, Blood pressure, CRT	S	P	Y	DOAP session, Skills Lab	Skills Assessmen t	3		
PE27.20	Secure an IV access in a simulated environment	S	P	Y	DOAP session, Skills Lab	Skills Assessmen t	3		
PF27.21	Choose the type of fluid and calculate the fluid requirement in shock	S	P	Y	DOAP session, Small group activity	Skills Assessmen t	3		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
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	S	P	Y	DOAP session, Skills Lab	Skills Assessment	3		
PE27.23	Assess for signs of severe dehydration	S	P	Y	Bedside clinics, Skills lab	Skill station	3		
PE27.24	Monitoring and maintaining temperature: define hypothermia. Describe the clinical features, complications and management of Hypothermia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.25	Describe the advantages and correct method of keeping an infant warm by skin to skin contact	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE27.26	Describe the environmental measures to maintain temperature	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.27	Assess for hypothermia and maintain temperature	S	SH	Y	Skills lab	Skills Assessment			
PE27.28	Provide BLS for children in manikin	S	P	Y	Skills Lab		3		
PE.27.29	Discuss the common causes, clinical presentation, medico-legal implications of abuse	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE27.30	Demonstrate confidentiality with regard to abuse	A	SH	Y	Skills lab, standardized patients	Skills Station			
PE27.31	Assess child for signs of abuse	S	SH	Y	DOAP session, Skills lab	Log book			
PE27.32	Counsel parents of dangerously ill / terminally ill child to break a bad news	S	SH	Y	DOAP session	Document in Log book			
PE27.33	Obtain Informed Consent	S	SH	Y	DOAP session	Document in Log book			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE27.34	Willing to be a part of the ER team	A	SH	Y	DOAP session	Document in Log book			
PE27.35	Attends to emergency calls promptly	A	SH	Y	DOAP session	Document in Log Book			
Topic: Respiratory system, Number of competencies : (20), Number of procedures that require certification: (NIL)									
PE28.1	Discuss the etio-pathogenesis, clinical features and management of Naso pharyngitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.2	Discuss the etio-pathogenesis of Pharyngo Tonsillitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.3	Discuss the clinical features and management of Pharyngo Tonsillitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.4	Discuss the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.5	Discuss the etio-pathogenesis, clinical features and management of Epiglottitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE28.6	Discuss the etio-pathogenesis, clinical features and management of Acute laryngo- trachea-bronchitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.7	Discuss the etiology, clinical features and management of Stridor in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.8	Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE28.9	Elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor	S	SH	Y	Bedside clinics, skill lab	Skill Assessment		ENT	
PE28.10	Perform otoscopic examination of the ear	S	SH	Y	DOAP session	Skills Assessment		ENT	
PE28.11	Perform throat examination using tongue depressor	S	SH	Y	DOAP session	Skills Assessment		ENT	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE28.12	Perform examination of the nose	S	SH	Y	DOAP session	Skills Assessmen t		ENT	
PE28.13	Analyse the clinical symptoms and interpret physical findings and make a provisional / differential diagnosis in a child with ENT symptoms	S	SH	Y	Bedside clinics	Skills Assessmen t			
PE28.14	Develop a treatment plan and document appropriately in a child with upper respiratory symptoms	S	SH	Y	Bedside clinics	Skills Assessmen t			
PE28.15	Stratify risk in children with stridor using IMNCI guidelines	S	SH	Y	Bedside clinics	Log book documenta tion			
PE28.16	Interpret blood tests relevant to upper respiratory problems	S	SH	N	Bedside clinics, Small group discussion	Log book			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
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	S	SH	Y	Bedside clinics, Small group discussion	Skills Assessment		ENT, Radio-diagnosis	
PE28.18	Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of lower respiratory infections including bronchiolitis, wheeze associated LRTI Pneumonia and empyema	S	SH	Y	Bedside clinics, Small group discussion, Lecture	Skill Assessment/ Written/ Viva voce			
PE28.19	Describe the etio-pathogenesis, clinical features, diagnosis, management and prevention of asthma in children	K	KH	Y	Small group discussion, Lecture	Skill Assessment/ Written/ Viva voce		Respiratory Medicine	
PE28.20	Counsel the child with asthma on the correct use of inhalers in a simulated environment	S	SH	Y	Bedside clinics, Small group discussion, Lecture	Skills Assessment/ Written/ Viva voce		Respiratory Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
Topic : Anemia and other Hemato-oncologic disorders in children, Number of competencies: (20), Number of procedures that require certification : (NIL)									
PE29.1	Discuss the etio-pathogenesis, clinical features, classification and approach to a child with anaemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiolog y	
PE29.2	Discuss the etio-pathogenesis, clinical features and management of Iron Deficiency anaemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiolog y	
PE29.3	Discuss the etiopathogenesis, clinical features and management of VIT B12, Folate deficiency anaemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiolog y	
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiolog y	
PE29.5	Discuss the National Anaemia Control Program	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Communit y Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE29.6	Discuss the cause of thrombocytopenia in children: describe the clinical features and management of Idiopathic Thrombocytopenic Purpura (ITP)	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE29.7	Discuss the etiology, classification, pathogenesis and clinical features of Hemophilia in children	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE29.8	Discuss the etiology, clinical presentation and management of Acute Lymphoblastic Leukemia in children	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE29.9	Discuss the etiology, clinical presentation and management of lymphoma in children	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
PE29.10	Elicit, document and present the history related to Hematology	S	SH	Y	Bedside clinics, Skills lab	Skills Station			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
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	S	SH	Y	Bedside clinics, Skills lab	Skill assessment			
PE29.12	Perform examination of the abdomen, demonstrate organomegaly	S	SH	Y	Bedside clinics, Skills lab	Skill assessment			
PE29.13	Analyse symptoms and interpret physical signs to make a provisional/ differential diagnosis	S	SH	Y	Bedside clinics, Skill lab	Skill assessment			
PE29.14	Interpret CBC, LFT	S	SH	Y	Bedside clinics, Skills lab	Skill assessment			
PE29.15	Perform and interpret peripheral smear	S	SH	Y	DOAP session	Document in log book			
PE29.16	Discuss the indications for Hemoglobin electrophoresis and interpret report	K	K	N	Small group discussion	Viva voce		Biochemis try	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE29.17	Demonstrate performance of bone marrow aspiration in manikin	S	SH	Y	Skills lab	Document in log Book			
PE29.18	Enumerate the referral criteria for Hematological conditions	S	SH	Y	Bedside clinics, Small group activity	Viva voce			
PE29.19	Counsel and educate patients about prevention and treatment of anemia	A/C	SH	Y	Bedside clinics, Skills lab	Document in log book			
PE29.20	Enumerate the indications for splenectomy and precautions	K	K	N	Small group Activity	Viva voce			
Topic: Systemic Pediatrics-Central Nervous system, Number of competencies : (23), Number of procedures that require certification : (NIL)									
PE30.1	Discuss the etio-pathogenesis, clinical features , complications, management and prevention of meningitis in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
PE30.2	Distinguish bacterial, viral and tuberculous meningitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE30.3	Discuss the etio-pathogenesis, classification, clinical features, complication and management of Hydrocephalus in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.4	Discuss the etio-pathogenesis, classification, clinical features, and management of Microcephaly in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.5	Enumerate the Neural tube defects. Discuss the causes, clinical features, types, and management of Neural Tube defect	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.6	Discuss the etio-pathogenesis, clinical features, and management of Infantile hemiplegia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.7	Discuss the etio-pathogenesis, clinical features, complications and management of Febrile seizures in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE30.8	Define epilepsy. Discuss the pathogenesis, clinical types, presentation and management of Epilepsy in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.9	Define status Epilepticus. Discuss the clinical presentation and management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.10	Discuss the etio-pathogenesis, clinical features and management of Mental retardation in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.11	Discuss the etio-pathogenesis, clinical features and management of children with cerebral palsy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.12	Enumerate the causes of floppiness in an infant and discuss the clinical features, differential diagnosis and management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.13	Discuss the etio-pathogenesis, clinical features, management and prevention of Poliomyelitis in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE30.14	Discuss the etio-pathogenesis, clinical features and management of Duchene muscular dystrophy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.15	Discuss the etio-pathogenesis, clinical features and management of Ataxia in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.16	Discuss the approach to and management of a child with headache	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE30.17	Elicit document and present an age appropriate history pertaining to the CNS	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE30.18	Demonstrate the correct method for physical examination of CNS including identification of external markers. Document and present clinical findings	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE30.19	Analyse symptoms and interpret physical findings and propose a provisional / differential diagnosis	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
PE30.20	Interpret and explain the findings in a CSF analysis	S	SH	Y	Small group discussion	Log book		Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE30.21	Enumerate the indication and discuss the limitations of EEG, CT, MRI	K	K	N	Bedside clinics	Log book			
PE30.22	Interpret the reports of EEG, CT, MRI	S	SH	Y	Bedside clinics, Skills lab	Log book		Radiodiagnosis	
PE30.23	Perform in a mannequin lumbar puncture. Discuss the indications, contraindication of the procedure	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			
Topic: Allergic Rhinitis, Atopic Dermatitis, Bronchial Asthma, Urticaria Angioedema, Number of competencies : (12) Number of procedures that require certification : (NIL)									
PE31.1	Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
PE31.2	Recognize the clinical signs of Allergic Rhinitis	S	SH	Y	Bedside clinics' Skill Lab	Skill Assessment		ENT	
PE31.3	Describe the etio-pathogenesis, clinical features and management of Atopic dermatitis in Children	K	KH	Y	Lecture Small group discussion	Written/ Viva voce		ENT	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE31.4	Identify Atopic dermatitis and manage	S	SH		Bedside clinics Skills lab	Skill Assessmen t		Dermatolo gy, Venereolo gy and Leprosy	
PE31.5	Discuss the etio-pathogenesis, clinical types, presentations, management and prevention of childhood Asthma	K	KH	Y	Lecture Small group discussion	Written/ Viva voce			
PE31.6	Recognise symptoms and signs of Asthma	S	SH	Y	Bedside clinic, Small group activity	Skill Assessmen t			
PE31.7	Develop a treatment plan for Asthma appropriate to clinical presentation & severity	S	SH	Y	Bedside clinic, Small group activity	Skill Assessmen t			
PE31.8	Enumerate criteria for referral	K	KH	Y	Bedside clinic, Small group activity	Written/ Viva voce			
PE31.9	Interpret CBC and CX Ray in Asthma	S	SH	Y	Bedside clinic, Small group activity	Skill Assessmen t			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE31.10	Enumerate the indications for PFT	K	K	N	Bedside clinic, Small group activity	Viva voce			
PE31.11	Observe administration of Nebulisation	S	SH	Y	DOAP session	Document in log book			
PE31.12	Discuss the etio-pathogenesis, clinical features and complications and management of Urticaria Angioedema	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic : Chromosomal Abnormalities, Number of competencies : (13), Number of procedures that require certification: (NIL)									
PE32.1	Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Down's Syndrome	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
PE32.2	Identify the clinical features of Down's Syndrome	S	SH	Y	Bedside clinics, Skills lab	log book		General Medicine	
PE32.3	Interpret normal Karyotype and recognize Trisomy 21	S	SH	Y	Bedside clinics, Skills lab	Log book			General Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE32.4	Discuss the referral criteria and Multidisciplinary approach to management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE32.5	Counsel parents regarding 1. Present child 2. Risk in the next pregnancy	A/C	SH	N	Bedside clinics, Skills lab	Log book			
PE32.6	Discuss the genetic basis, risk factors, clinical features, complications, prenatal diagnosis, management and genetic counselling in Turner's Syndrome	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Obstetrics & Gynaecology	
PE32.7	Identify the clinical features of Turner Syndrome	S	SH	N	Bedside clinics, Skills lab	Log book		General Medicine	
PE32.8	Interpret normal Karyotype and recognize the Turner Karyotype	S	SH	N	Bedside clinics, Skills lab	log book		General Medicine, Obstetrics & Gynaecology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE32.9	Discuss the referral criteria and multidisciplinary approach to management of Turner Syndrome	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			General Medicine, Obstetrics & Gynaecol ogy
PE32.10	Counsel parents regarding 1. Present child 2. Risk in the next pregnancy	A/C	SH	N	Bedside clinics, Skills lab	Log book			
PE32.11	Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Klinefelter Syndrome	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
PE32.12	Identify the clinical features of Klinefelter Syndrome	S	SH	N	Bedside clinics, Skills lab	Log book		General Medicine	
PE32.13	Interpret normal Karyotype and recognize the Klinefelter Karyotype	S	SH	N	Bedside clinics, Skills lab	Log book		General Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
Topic: Endocrinology Number of competencies: (11), Number of procedures that require certification: (02)									
PE33.1	Describe the etio-pathogenesis clinical features, management of Hypothyroidism in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE33.2	Recognize the clinical signs of Hypothyroidism and refer	S	SH	Y	Bedside clinics, Skill Lab	Skill Assessment			
PE33.3	Interpret and explain neonatal thyroid screening report	S	SH	Y	Bedside clinics, Small group discussion	Skill Assessment			
PE33.4	Discuss the etio-pathogenesis, clinical types, presentations, complication and management of Diabetes mellitus in children	K	KH	Y	Lecture, Small group discussions	Written/ Viva voce			
PE33.5	Interpret Blood sugar reports and explain the diagnostic criteria for Type 1 Diabetes	S	SH	Y	Bedside clinic, small group activity	Skill Assessment			
PE33.6	Perform and interpret Urine Dip Stick for Sugar	S	P	Y	DOAP session	Skill Assessment	3	Biochemistry	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE33.7	Perform genital examination and recognize Ambiguous Genitalia and refer appropriately	S	SH	Y	Bedside clinic Skills lab	Skill Assessmen t			
PE33.8	Define precocious and delayed Puberty	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PE33.9	Perform Sexual Maturity Rating (SMR) and interpret	S	SH	Y	Bedside clinics Skills Lab	Skill Assessmen t			
PE33.10	Recognize precocious and delayed Puberty and refer	S	SH	Y	Bedside clinics Skills Lab	log book			
PE33.11	Identify deviations in growth and plan appropriate referral	S	P	Y	Bedside clinics Skills Lab	log book	2		
Topic : Vaccine preventable Diseases - Tuberculosis Number of competencies : (20), Number of procedures that require certification : (03)									
PE34.1	Discuss the epidemiology, clinical features, clinical types, complications of Tuberculosis in Children and Adolescents	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiolo gy	Respirato ry Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE34.2	Discuss the various diagnostic tools for childhood tuberculosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	Respiratory Medicine
PE34.3	Discuss the various regimens for management of Tuberculosis as per National Guidelines	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology, Community Medicine, Pharmacology	Respiratory Medicine
PE34.4	Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Control Program	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology, Community Medicine, Pharmacology	Respiratory Medicine
PE34.5	Able to elicit, document and present history of contact with tuberculosis in every patient encounter	S	SH	Y	Bedside clinics, Skill lab	Skill Assessment			Respiratory Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE34.6	Identify a BCG scar	S	P	Y	Bedside clinics, Skills lab	Skill Assessmen t	3	Microbiolo gy	Respirato ry Medicine
PE34.7	Interpret a Mantoux test	S	P	Y	Bedside clinics Skills lab	Skill assessmen t	3	Microbiolo gy	Respirato ry Medicine
PE34.8	Interpret a Chest Radiograph	S	SH	Y	Bedside clinics Skills lab	Skill assessmen t		Radiodiag nosis	Respirato ry Medicine
PE34.9	Interpret blood tests in the context of laboratory evidence for tuberculosis	S	SH	N	Bedside clinics, Small group discussion	log book		Microbiolo gy	Respirato ry Medicine
PE34.10	Discuss the various samples for demonstrating the organism e.g. Gastric Aspirate, Sputum , CSF, FNAC	K	KH	Y	Bedside clinics, Small group discussion	Written/ Viva voce		Microbiolo gy	Respirato ry Medicine
PE34.11	Perform AFB staining	S	P	Y	DOAP session	Log book/ Journal	3	Microbiolo gy	Respirato ry Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE34.12	Enumerate the indications and discuss the limitations of methods of culturing M.Tuberculi	K	KH	Y	Small group discussion	Written/ Viva voce		Microbiology	Respiratory Medicine
PE34.13	Enumerate the newer diagnostic tools for Tuberculosis including BACTEC CBNAAT and their indications	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
PE34.14	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of fever in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
PE34.16	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Diphtheria, Pertussis, Tetanus.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
PE34.17	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Typhoid	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
PE34.20	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Rickettsial diseases	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
Topic: The role of the physician in the community, Number of competencies: (01), Number of procedures that require certification : (NIL)									
PE35.1	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as they pertain to health care in children (including parental rights and right to refuse treatment)	K	KH	Y	Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integratio n
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Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH- Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform.
 Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
INTEGRATION									
HUMAN ANATOMY									
AN25.4	Describe embryological basis of: 1) atrial septal defect, 2) ventricular septal defect, 3) Fallot's tetralogy & 4) tracheo-oesophageal fistula	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics	Physiology
AN25.5	Describe developmental basis of congenital anomalies, transposition of great vessels, dextrocardia, patent ductus arteriosus and coarctation of aorta	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics	Physiology
AN25.9	Demonstrate surface marking of lines of pleural reflection, Lung borders and fissures, Trachea, Heart borders, Apex beat & surface projection of valves of heart	K/S	SH	Y	Practical	Viva voce/ skill assessment		General Medicine, Pediatrics	Physiology
AN63.2	Describe anatomical basis of congenital hydrocephalus	K	KH	N	Lecture	Written		Pediatrics	Physiology
AN64.3	Describe various types of open neural tube defects with its embryological basis	K	KH	N	Lecture	Written/ Viva voce		Obstetrics & Gynaecol ogy, Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
AN74.1	Describe the various modes of inheritance with examples	K	KH	Y	Lecture	Written		General Medicine, Pediatrics	
AN74.2	Draw pedigree charts for the various types of inheritance & give examples of diseases of each mode of inheritance	K	KH	Y	Lecture	Written		General Medicine, Pediatrics	
AN74.4	Describe the genetic basis & clinical features of Achondroplasia, Cystic Fibrosis, Vitamin D resistant rickets, Hemophilia, Duchene's muscular dystrophy and Sickle cell anaemia	K	KH	N	Lecture	Written		General Medicine, Pediatrics	
AN75.1	Describe the structural and numerical chromosomal aberrations	K	KH	Y	Lecture	Written		Pediatrics	
AN75.2	Explain the terms mosaics and chimeras with example	K	KH	N	Lecture	Written		Pediatrics	
AN75.3	Describe the genetic basis & clinical features of Prader Willi syndrome, Edward syndrome & Patau syndrome	K	KH	N	Lecture	Written		Pediatrics	
AN75.4	Describe genetic basis of variation; polymorphism and mutation	K	KH	Y	Lecture	Written		Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
AN75.5	Describe the principles of genetic counselling	K	KH	Y	Lecture	Written		Pediatrics, Obstetrics & Gynaecol ogy	
PHYSIOLOGY									
PY11.6	Describe physiology of Infancy	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PY11.9	Interpret growth charts	K	KH	Y	Small group teaching	Practical / OSPE / Viva voce		Pediatrics	
PY11.10	Interpret anthropometric assessment of infants	K	KH	Y	Small group teaching	Practical / OSPE / Viva voce		Pediatrics	
BIOCHEMISTRY									
BI5.3	Describe the digestion and absorption of dietary proteins	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
BI5.4	Describe common disorders associated with protein metabolism	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
BI7.3	Describe gene mutations and basic mechanism of regulation of gene expression	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
BI7.4	Describe applications of recombinant DNA technology, PCR in the diagnosis and treatment of diseases with genetic basis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics, General Medicine	
BI8.1	Discuss the importance of various dietary components and explain importance of dietary fibre	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics, Pathology	
BI8.2	Describe the types and causes of protein energy malnutrition and its effects	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics, Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
BI8.5	Summarize the nutritional importance of commonly used items of food including fruits and vegetables. (macro-molecules & its importance)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Communi ty Medicine, General Medicine, Pediatrics	
BI10.5	Describe antigens and concepts involved in vaccine development	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology , Pediatrics, Microbiolo gy	
PATHOLOGY									
PA12.2	Describe the pathogenesis of disorders caused by protein calorie malnutrition and starvation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemis try, Pediatrics	
PA21.2	Classify and describe the etiology, pathogenesis and pathology of vascular and platelet disorders including ITP and hemophilias	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
PA28.12	Define, classify and describe the genetics, inheritance etiology, pathogenesis, pathology, laboratory, urinary findings, distinguishing features, progression and complications of cystic disease of the kidney	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics	
PA28.14	Classify and describe the etiology, genetics, pathogenesis, pathology, presenting features, progression and spread of renal tumors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PA31.4	Enumerate and describe the etiology, hormonal dependency and pathogenesis of gynecomastia	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pediatrics, General Medicine	
PA35.2	Classify and describe the etiology, genetics, pathogenesis, pathology, presentation sequelae and complications of CNS tumors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
MICROBIOLOGY									
MI1.8	Describe the mechanisms of immunity and response of the host immune system to infections	K	KH	Y	Lecture	Written/ Viva voce		Pediatrics	Pathology
MI1.9	Discuss the immunological basis of vaccines and describe the Universal Immunisation schedule	K	KH	Y	Lecture	Written/ Viva voce		Paediatric s	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
MI1.10	Describe the immunological mechanisms in immunological disorder (hypersensitivity, autoimmune disorders and immunodeficiency states) and discuss the laboratory methods used in detection	K	KH	Y	Lecture	Written/ Viva voce		Paediatric s	
MI3.1	Enumerate the microbial agents causing diarrhea and dysentery. Describe the epidemiology, morphology, pathogenesis, clinical features, and diagnostic modalities of these agents	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Paediatric s	Pathology
MI3.2	Identify the common etiologic agents of diarrhea and dysentery	S	SH	Y	DOAP session	Skill assessment		General Medicine, Paediatric s	
MI5.1	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of meningitis	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Paediatric s	Pathology
MI5.2	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of encephalitis	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Paediatric s	Pathology

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
MI5.3	Identify the microbial agents causing meningitis	S	SH	Y	DOAP session	Skill assessment		General Medicine, Paediatric s	
PHARMACOLOGY									
PH1.12	Calculate the dosage of drugs using appropriate formulae for an individual patient, including children, elderly and patient with renal dysfunction	K/S	SH	Y	Lecture, practical	Written/ Viva voce		Pediatrics, General Medicine	
PH1.43	Describe and discuss the rational use of antimicrobials including antibiotic stewardship program	K	KH	Y	Lecture	Written/ Viva voce		General Medicine Pediatrics	Microbiolog y
PH1.56	Describe basic aspects of Geriatric and Pediatric pharmacology	K	KH	Y	Lecture	Written/ Viva voce		Pediatrics	
PH2.4	Demonstrate the correct method of calculation of drug dosage in patients including those used in special situations	S	SH	Y	DOAP sessions	Skills assessment		Pharmaco logy, General Medicine	
COMMUNITY MEDICINE									

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
CM3.3	Describe the aetiology and basis of water borne diseases /jaundice/hepatitis/ diarrheal diseases	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Microbiolo gy, General Medicine, Pediatrics	
CM5.1	Describe the common sources of various nutrients and special nutritional requirements according to age, sex, activity, physiological conditions	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics	
CM5.2	Describe and demonstrate the correct method of performing a nutritional assessment of individuals, families and the community by using the appropriate method	S	SH	Y	DOAP session	Skill Assessment		General Medicine, Pediatrics	
CM5.3	Define and describe common nutrition related health disorders (including macro-PEM, Micro-iron, Zn, iodine, Vit. A), their control and management.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics	
CM5.4	Plan and recommend a suitable diet for the individuals and families based on local availability of foods and economic status, etc in a simulated environment	S	SH	Y	DOAP session	Skill Assessment		General Medicine, Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
CM5.5	Describe the methods of nutritional surveillance, principles of nutritional education and rehabilitation in the context of sociocultural factors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics	
CM5.6	Enumerate and discuss the National Nutrition Policy, important national nutritional Programs including the Integrated Child Development Services Scheme (ICDS) etc	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
CM5.8	Describe and discuss the importance and methods of food fortification and effects of additives and adulteration	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
CM6.1	Formulate a research question for a study	K	KH	Y	Small group, Lecture, DOAP session	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics	
CM6.2	Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data	S	SH	Y	Small group discussion, Lecture, DOAP session	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
CM6.3	Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs	S	SH	Y	Small group discussion, Lecture, DOAP session	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics	
CM6.4	Enumerate, discuss and demonstrate common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion	S	SH	Y	Small group discussion, Lecture, DOAP session	Written/ Viva voce/ Skill Assessment		General Medicine, Pediatrics	
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	Small group discussion, Lecture	Written/ Viva voce		General Medicine, Pediatrics	Microbiology, Pathology
CM8.3	Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		General Medicine, Pediatrics	
CM8.4	Describe the principles and enumerate the measures to control a disease epidemic	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		General Medicine, Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
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	Small group discussion, Lecture	Written / Viva voce		General Medicine, Pediatrics	
CM9.2	Define, calculate and interpret demographic indices including birth rate, death rate, fertility rates	S	SH	Y	Lecture, Small group discussion, DOAP sessions	Skill assessment		Obstetrics & Gynaecology, Pediatrics	
CM10.1	Describe the current status of Reproductive, maternal, newborn and Child Health	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics	
CM10.2	Enumerate and describe the methods of screening high risk groups and common health problems	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
CM10.3	Describe local customs and practices during pregnancy, childbirth, lactation and child feeding practices	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics	
CM10.4	Describe the reproductive, maternal, newborn & child health (RMCH); child survival and safe motherhood interventions	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics	
CM10.5	Describe Universal Immunization Program; Integrated Management of Neonatal and Childhood Illness (IMNCI) and other existing Programs	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
FORENSIC MEDICINE AND TOXICOLOGY									
FM1.9	<p>Describe the importance of documentation in medical practice in regard to medicolegal examinations, Medical Certificates and medicolegal reports especially</p> <ul style="list-style-type: none"> - 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 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Radio- diagnosis, General Surgery, General Medicine, Paediatric s	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
FM2.27	Define and discuss infanticide, foeticide and stillbirth	K	KH	Y	Lecture, Small group discussion s	Written/ Viva voce		Pediatrics	
FM2.28	Describe and discuss signs of intrauterine death, signs of live birth, viability of foetus, age determination of foetus, DOAP session of ossification centres, Hydrostatic test, Sudden infants death syndrome and Munchausen's syndrome by proxy	K	K/KH	Y	Lecture, Small group Discussi- ons, Autopsy, DOAP session	Written/ Viva voce/ OSCE		Pediatrics, Human Anatomy	
FM3.29	Describe and discuss child abuse and battered baby syndrome	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
DERMATOLOGY, VENEREOLOGY AND LEPROSY									
DR5.1	Describe the etiology, microbiology, pathogenesis, natural history, clinical features, presentations and complications of scabies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
DR5.2	Identify and differentiate scabies from other lesions	S	SH	Y	Bedside clinic	Skill assessment		Pediatrics	
DR5.3	Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	Pharmacology
DR6.1	Describe the etiology, pathogenesis and diagnostic features of pediculosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	Microbiology
DR6.2	Identify and differentiate pediculosis from other skin lesions	S	SH	Y	Bedside clinic	Skill assessment		Pediatrics	
DR7.1	Describe the etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of dermatophytes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	Microbiology
DR8.1	Describe the etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of common viral infections of the skin	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	Microbiology

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
DR17.1	Enumerate and identify the cutaneous findings in vitamin A deficiency	K/S	SH	Y	Lecture, Small group discussion, Bedside clinic	Skill assessment / Viva voce		General Medicine, Pediatrics, Biochemis try	
DR17.2	Enumerate and describe the various skin changes in Vitamin B complex deficiency	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics, Biochemis try	
DR17.3	Enumerate and describe the various changes in Vitamin C deficiency	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics, Biochemis try	
DR17.4	Enumerate and describe the various changes in Zinc deficiency	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics, Biochemis try	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
ANESTHESIOLOGY									
AS2.1	Enumerate the indications, describe the steps and demonstrate in a simulated environment basic life support in adults children and neonates	S	SH	N	DOAP session	Skill assessment		General Medicine, Pediatrics	
PSYCHIATRY									
PS14.1	Enumerate and describe the magnitude and etiology of psychiatric disorders occurring in childhood and adolescence	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS14.2	Enumerate, elicit, describe and document clinical features in patients with psychiatric disorders occurring in childhood and adolescence	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pediatrics	
PS14.3	Describe the treatment of stress related disorders including behavioural, psychosocial and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS14.4	Demonstrate family education in a patient with psychiatric disorders occurring in childhood and adolescence in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
PS14.5	Enumerate and describe the pharmacologic basis and side effects of drugs used in psychiatric disorders occurring in childhood and adolescence	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS15.1	Describe the aetiology and magnitude of mental retardation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS15.2	Describe and discuss intelligence quotient and its measurement	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS15.3	Elicit and document a history and clinical examination and choose appropriate investigations in a patient with mental retardation	K/S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pediatrics	
PS15.4	Describe the psychosocial interventions and treatment used in mental retardation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
GENERAL MEDICINE									
IM23.1	Discuss and describe the methods of nutritional assessment in an adult and calculation of caloric requirements during illnesses	K	KH	Y	Lecture, Small group discussion s	Written/ Viva voce		Physiolog y, Biochemis try	Pediatrics
IM23.2	Discuss and describe the causes and consequences of protein caloric malnutrition in the hospital	K	KH	Y	Lecture, Small group discussion s	Written/ Viva voce		Physiolog y, Biochemis try	Pediatrics
IM23.3	Discuss and describe the aetiology, causes, clinical manifestations, complications, diagnosis and management of common vitamin deficiencies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiolog y, Biochemis try	Pediatrics
IM23.4	Enumerate the indications for enteral and parenteral nutrition in critically ill patients	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiolog y, Biochemis try	Pediatrics

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OBSTETRICS AND GYNOCOLGY									
OG1.2	Define and discuss perinatal mortality and morbidity including perinatal and neonatal mortality and morbidity audit	K	KH	Y	Lecture, Small group discussion	Short notes		Communi ty Medicine	Pediatrics
OG18.1	Describe and discuss the assessment of maturity of the newborn, diagnosis of birth asphyxia, principles of resuscitation, common problems	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics
OG18.2	Demonstrate the steps of neonatal resuscitation in a simulated environment	S	SH	Y	DOAP session	Skill assessment			Pediatrics
OG18.3	Describe and discuss the diagnosis of birth asphyxia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics
OG18.4	Describe the principles of resuscitation of the newborn and enumerate the common problems encountered	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
PHYSICAL MEDICINE AND REHABILITATION									
PM3.1	Describe and discuss the clinical features, types, evaluation, diagnosis and management of cerebral palsy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	Pediatrics
PM3.2	Recognize, describe and discuss the spectrum of multiple disability : cognitive, motor, visual and hearing in cerebral palsy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics
PM3.3	Recognize, describe and discuss the role of special education in children with learning disabilities	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics
PM3.4	Demonstrate spasticity, rigidity and dystonia in children with cerebral palsy	S	SH	Y	DOAP session, Small group discussion, Bedside clinic	Skill assessment			Pediatrics

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	Suggested Assessment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
PM3.5	Enumerate the indications and describe the therapies for spasticity including medications, serial casts, nerve blocks, botulinum toxin injections	K	KH	Y	Lecture, Small group discussion			Pharmaco logy	Pediatrics, Orthopedic s
PM3.6	Enumerate the indications and describe prevention of joint subluxations and contractures by proper positioning, and use of special chairs, and appliances	K	KH	Y	DOAP session, Small group discussion, Bedside clinic				Pediatrics
PM3.7	Enumerate the first aid measures to be used in patients with seizures	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics
PM4.2	Describe and discuss the principles of management of chronic pain and role of common modalities (moist heat, ultrasound, Short wave diathermy)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics

Modifications are made as per the National Medical Commission (Under Graduate Medical Education Board, 2023) Notification No. U. 14021/8/2023-UGMEB dated 1st August 2023

TEACHING HOURS

Sr. No.	Content	Revision
1.	Teaching hours	II Professional MBBS - Lecture= 0
		III Professional MBBS (Part- I) - Lecture= 25 - SGL= 30 - SDL= 10 - Total: 65
		III Professional MBBS (Part- II) - Lecture= 30 - SGL= 60 - SDL= 30 - Total: 120

CLINICAL POSTING

Sr. No.	Content	Revision
1.	Duration of Clinical Posting	II Professional MBBS 4 weeks
		III Professional MBBS (Part- I) 4 weeks
		III Professional MBBS (Part- II) 5 weeks

II. UNIVERSITY EXAMINATION

A) Theory Examination:- 100 marks

Pattern of Theory Paper:

- Section A
 - 10 MCQ (1 mark each)
- Section B
 - B.1 LAQ attempt 2 out of 3 (marks 15 each X 2 = 30)
 - problem based questions 2
 - Structured question 1
 - B2. SAQ (5 marks each X 3= 15)
- Section C
 - C.1 LAQ 1 compulsory- direct question marks 15
 - C.2 SAQ (5 marks each X 4= 20) 1 AETCOM based question

B) Practical Examination

University Practical Examination [100 marks]

- Pediatric Case – 30 marks
- Newborn case – 25 marks
- OSCE – 25 marks
- Obst table viva – 20 marks

Total 100 marks

Passing criteria for the University Final Examination

Either Theory minimum 40% and Practical Minimum 60% = Aggregate 50%

Or Theory minimum 60% and Practical Minimum 40% = Aggregate 50%

PSYCHIATRY

PSYCHIATRY

a. Competencies:

The student must demonstrate:

- Ability to promote mental health and mental hygiene,
- Knowledge of etiology (bio-psycho-social-environmental interactions), clinical features, diagnosis and management of common psychiatric disorders across all ages.
- Ability to recognize and manage common psychological and psychiatric disorders in a primary care setting, institute preliminary treatment in disorders difficult to manage, and refer appropriately,
- Ability to recognize alcohol/ substance abuse disorders and refer them to appropriate centres,
- Ability to assess risk for suicide and refer appropriately,
- Ability to recognize temperamental difficulties and personality disorders,
- Assess mental disability and rehabilitate appropriately,
- Understanding of National and State programmes that address mental health and welfare of patients and community.

b. Broad subject specific objectives:

Knowledge:

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

- Understand the comprehensive nature & development of different aspects of normal human behaviour like learning, memory, motivation, personality & intelligence
- Recognize differences between normal & abnormal behaviour

- Classify psychiatric disorders
- Recognize clinical manifestations of the following common syndromes & plan their appropriate management of organic psychosis, functional psychosis, schizophrenia, affective disorders, neurotic disorders, personality disorders, psycho physiological disorders, drug & alcohol dependence, psychiatric disorders of childhood & adolescence
- Describe rational use of different mode of therapy in psychiatric disorders.

c. Skills:

The student shall be able to:

- Interview the patient & understand different methods of communications in patient- doctor relationship.
- Elicit detailed psychiatric case history & conduct clinical examination for assessment of mental status.
- Define, elicit & interpret psychopathological symptoms & signs.
- Diagnose & manage common psychiatric disorders.
- Identify & manage common psychological reactions & psychiatric disorders in medical & surgical patients in clinical practice & in community setting.

d. Integration:

The teaching should be aligned and integrated horizontally and vertically in order to allow the student to understand bio-psycho-social-environmental interactions that lead to diseases/ disorders for preventive, promotive, curative, rehabilitative services and medico-legal implications in the care of patients both in family and community

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PSYCHIATRY (CODE: PS)									
PSYCHIATRY									
Topic : Doctor patient relationship Number of competencies : (04), Number of procedures that require certification: (NIL)									
PS1.1	Establish rapport and empathy with patients	A/C	SH	Y	DOAP session	Skill station			
PS1.2	Describe the components of communication	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS1.3	Demonstrate breaking of bad news in a simulated environment	A/C	SH	Y	DOAP session	Skill station			
PS1.4	Describe and demonstrate the importance of confidentiality in patient encounters	A/C	SH	Y	DOAP session	Faculty observation			
Topic: Mental health, Number of competencies : (05), Number of procedures that require certification : (NIL)									
PS2.1	Define stress and describe its components and causes	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS2.2	Describe the role of time management, study skills, balanced diet and sleep wake habits in stress avoidance	K	KH	Y	Lecture, Small group discussion	Viva voce			
PS2.3	Define and describe the principles and components of learning memory and emotions	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PS2.4	Describe the principles of personality development and motivation	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PS2.5	Define and distinguish normality and abnormality	K	K	Y	Lecture, Small group discussion	Viva voce			
Topic: Introduction to psychiatry, Number of competencies : (12), Number of procedures that require certification : (NIL)									
PS3.1	Describe the growth of psychiatry as a medical specialty, its history and contribution to society	K	KH	Y	Lecture	Written/ Viva voce			
PS3.2	Enumerate, describe and discuss important signs & symptoms of common mental disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integrati on	Horizontal Integration
PS3.3	Elicit, present and document a history in patients presenting with a mental disorder	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS3.4	Describe the importance of establishing rapport with patients	S/A	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Faculty observation			
PS3.5	Perform, demonstrate and document a minimal examination	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS3.6	Describe and discuss biological, psychological & social factors & their interactions in the causation of mental disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS3.7	Enumerate and describe common organic psychiatric disorders, magnitude, etiology and clinical features	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine
PS3.8	Enumerate and describe the essential investigations in patients with organic psychiatric disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integrati on	Horizontal Integration
PS3.9	Describe the steps and demonstrate in a simulated environment family education in patients with organic psychiatric disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS3.10	Enumerate and describe the pharmacologic basis and side effects of drugs used in psychiatric disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS3.11	Enumerate the appropriate conditions for specialist referral in patients with psychiatric disorders	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PS3.12	Describe, discuss and distinguish psychotic & non-psychotic (Mood, Anxiety, Stress related) disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Substance use disorders, Number of competencies: (07), Number of procedures that require certification: (NIL)									
PS4.1	Describe the magnitude and etiology of alcohol and substance use disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine
PS4.2	Elicit, describe and document clinical features of alcohol and substance use disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS4.3	Enumerate and describe the indications and interpret laboratory and other tests used in alcohol and substance abuse disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Medicine
PS4.4	Describe the treatment of alcohol and substance abuse disorders including behavioural and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	General Medicine
PS4.5	Demonstrate family education in a patient with alcohol and substance abuse in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		AETCOM	
PS4.6	Enumerate and describe the pharmacologic basis and side effects of drugs used in alcohol and substance abuse	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	General Medicine
PS4.7	Enumerate the appropriate conditions for specialist referral in patients with alcohol and substance abuse disorders	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Psychotic disorders, Number of competencies: (06), Number of procedures that require certification: (NIL)									
PS5.1	Classify and describe the magnitude and etiology of schizophrenia & other psychotic disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS5.2	Enumerate, elicit, describe and document clinical features, positive s	y S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS5.3	Describe the treatment of schizophrenia including behavioural and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
PS5.4	Demonstrate family education in a patient with schizophrenia in a simulated environment	K/S/A/C	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS5.5	Enumerate and describe the pharmacologic basis and side effects of drugs used in schizophrenia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
PS5.6	Enumerate the appropriate conditions for specialist referral in patients with psychotic disorders	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Depression, Number of competencies: (07), Number of procedures that require certification: (NIL)									
PS6.1	Classify and describe the magnitude and etiology of depression	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integrati on	Horizontal Integration
PS6.2	Enumerate, elicit, describe and document clinical features in patients with depression	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS6.3	Enumerate and describe the indications and interpret laboratory and other tests used in depression	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS6.4	Describe the treatment of depression including behavioural and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharma cology	
PS6.5	Demonstrate family education in a patient with depression in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS6.6	Enumerate and describe the pharmacologic basis and side effects of drugs used in depression	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharma cology	
PS6.7	Enumerate the appropriate conditions for specialist referral in patients with depression	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integrati on	Horizontal Integration
Topic: Bipolar disorders, Number of competencies: (07), Number of procedures that require certification : (NIL)									
PS7.1	Classify and describe the magnitude and etiology of bipolar disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS7.2	Enumerate, elicit, describe and document clinical features in patients with bipolar disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS7.3	Enumerate and describe the indications and interpret laboratory and other tests used in bipolar disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS7.4	Describe the treatment of bipolar disorders including behavioural and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharma cology	
PS7.5	Demonstrate family education in a patient with bipolar disorders in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS7.6	Enumerate and describe the pharmacologic basis and side effects of drugs used in bipolar disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharma cology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS7.7	Enumerate the appropriate conditions for specialist referral in patients with bipolar disorders	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Anxiety disorders Number of competencies: (07), Number of procedures that require certification: (NIL)									
PS8.1	Enumerate and describe the magnitude and etiology of anxiety disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS8.2	Enumerate, elicit, describe and document clinical features in patients with anxiety disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS8.3	Enumerate and describe the indications and interpret laboratory and other tests used in anxiety disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS8.4	Describe the treatment of anxiety disorders including behavioural and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
PS8.5	Demonstrate family education in a patient with anxiety disorders in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS8.6	Enumerate and describe the pharmacologic basis and side effects of drugs used in anxiety disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
PS8.7	Enumerate the appropriate conditions for specialist referral in anxiety disorders	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Stress related disorders, Number of competencies: (07), Number of procedures that require certification: (NIL)									
PS9.1	Enumerate and describe the magnitude and etiology of stress related disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS9.2	Enumerate, elicit, describe and document clinical features in patients with stress related disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS9.3	Enumerate and describe the indications and interpret laboratory and other tests used in stress related disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS9.4	Describe the treatment of stress related disorders including behavioural and psychosocial therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS9.5	Demonstrate family education in a patient with stress related disorders in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS9.6	Enumerate and describe the pharmacologic basis and side effects of drugs used in stress related disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS9.7	Enumerate the appropriate conditions for specialist referral in stress disorders	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Somatoform disorders, Number of competencies : (07), Number of procedures that require certification : (NIL)									
PS10.1	Enumerate and describe the magnitude and etiology of somatoform, dissociative and conversion disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine
PS10.2	Enumerate, elicit, describe and document clinical features in patients with somatoform, dissociative and conversion disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Medicine
PS10.3	Enumerate and describe the indications and interpret laboratory and other tests used in somatoform, dissociative and conversion disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS10.4	Describe the treatment of somatoform disorders including behavioural, psychosocial and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	General Medicine
PS10.5	Demonstrate family education in a patient with somatoform, dissociative and conversion disorders in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS10.6	Enumerate and describe the pharmacologic basis and side effects of drugs used in somatoform, dissociative and conversion disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	General Medicine
PS10.7	Enumerate the appropriate conditions for specialist referral in patients with somatoform dissociative and conversion disorders	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic : Personality disorders, Number of competencies: (07), Number of procedures that require certification : (NIL)									
PS11.1	Enumerate and describe the magnitude and etiology of personality disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integrati on	Horizontal Integration
PS11.2	Enumerate, elicit, describe and document clinical features in patients with personality disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS11.3	Enumerate and describe the indications and interpret laboratory and other tests used in personality disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS11.4	Describe the treatment of personality disorders including behavioural, psychosocial and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharma cology	
PS11.5	Demonstrate family education in a patient with personality disorders in a simulated environment	S/A/C	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS11.6	Enumerate and describe the pharmacologic basis and side effects of drugs used in personality disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharma cology	
PS11.7	Enumerate the appropriate conditions for specialist referral	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Psychosomatic disorders, Number of competencies: (07), Number of procedures that require certification: (NIL)									
PS12.1	Enumerate and describe the magnitude and etiology of psychosomatic disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine
PS12.2	Enumerate, elicit, describe and document clinical features in patients with magnitude and etiology of psychosomatic disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Medicine
PS12.3	Enumerate and describe the indications and interpret laboratory and other tests of psychosomatic disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Medicine
PS12.4	Describe the treatment of psychosomatic disorders including behavioral, psychosocial and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	General Medicine
PS12.5	Demonstrate family education in a patient with psychosomatic disorders in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS12.6	Enumerate and describe the pharmacologic basis and side effects of drugs used in psychosomatic disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS12.7	Enumerate the appropriate conditions for specialist referral	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Psychosexual and gender identity disorders, Number of competencies: (07), Number of procedures that require certification: (NIL)									
PS13.1	Enumerate and describe the magnitude and etiology of psychosexual and gender identity disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS13.2	Enumerate, elicit, describe and document clinical features in patients with magnitude and etiology of psychosexual and gender identity disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS13.3	Enumerate and describe the indications and interpret laboratory and other tests used in psychosexual and gender identity disorders	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS13.4	Describe the treatment of psychosexual and gender identity disorders including behavioural, psychosocial and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integrati on	Horizontal Integration
PS13.5	Demonstrate family education in a patient with psychosexual and gender identity disorders in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
PS13.6	Enumerate and describe the pharmacologic basis and side effects of drugs used in psychosexual and gender identity disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS13.7	Enumerate the appropriate conditions for specialist referral	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Psychiatric disorders in childhood and adolescence, Number of competencies : (06), Number of procedures that require certification: (NIL)									
PS14.1	Enumerate and describe the magnitude and etiology of psychiatric disorders occurring in childhood and adolescence	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatric s	
PS14.2	Enumerate, elicit, describe and document clinical features in patients with psychiatric disorders occurring in childhood and adolescence	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pediatric s	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS14.3	Describe the treatment of stress related disorders including behavioral, psychosocial and pharmacologic therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS14.4	Demonstrate family education in a patient with psychiatric disorders occurring in childhood and adolescence in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pediatrics	
PS14.5	Enumerate and describe the pharmacologic basis and side effects of drugs used in psychiatric disorders occurring in childhood and adolescence	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS14.6	Enumerate the appropriate conditions for specialist referral in children and adolescents with psychiatric disorders	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Mental retardation, Number of competencies: (04), Number of procedures that require certification: (NIL)									
PS15.1	Describe the aetiology and magnitude of mental retardation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
PS15.2	Describe and discuss intelligence quotient and its measurement	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS15.3	Elicit and document a history and clinical examination and choose appropriate investigations in a patient with mental retardation	K/S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pediatrics	
PS15.4	Describe the psychosocial interventions and treatment used in mental retardation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
Topic: Psychiatric disorders in the elderly, Number of competencies : (05), Number of procedures that require certification : (NIL)									
PS16.1	Enumerate and describe common psychiatric disorders in the elderly including dementia, depression and psychosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine
PS16.2	Describe the aetiology and magnitude of psychiatric illness in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
PS16.3	Describe the therapy of psychiatric illness in elderly including psychosocial and behavioural therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
PS16.4	Demonstrate family education in a patient with psychiatric disorders occurring in the elderly in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		General Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS16.5	Enumerate the appropriate conditions for specialist referral in psychiatric disorders in the elderly	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic : Psychiatric emergencies, Number of competencies : (03), Number of procedures that require certification: (NIL)									
PS17.1	Enumerate and describe the recognition and clinical presentation of psychiatric emergencies (Suicide, Deliberate Self Harm, Violent behaviour)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS17.2	Describe the initial stabilisation and management of psychiatric emergencies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS17.3	Enumerate the appropriate conditions for specialist referral in patients with psychiatric emergencies	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Therapeutics, Number of competencies : (03), Number of procedures that require certification: (NIL)									
PS18.1	Enumerate the indications and describe the pharmacology, dose and side effects of commonly use drugs in psychiatric disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS18.2	Enumerate the indications for modified electroconvulsive therapy	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
PS18.3	Enumerate and describe the principles and role of psychosocial interventions in psychiatric illness including psychotherapy, behavioural therapy and rehabilitation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Miscellaneous, Number of competencies: (06), Number of procedures that require certification : (NIL)									
PS19.1	Describe the relevance, role and status of community psychiatry	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
PS19.2	Describe the objectives strategies and contents of the National Ment	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PS19.3	Describe and discuss the basic legal and ethical issues in psychiatry	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Forensic Medicine & Toxicology, AETCOM	
PS19.4	Enumerate and describe the salient features of the prevalent mental health laws in India	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
PS19.5	Describe the concept and principles of preventive psychiatry and mental health promotion (positive mental health); and community education	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
PS19.6	Enumerate and describe the identifying features and the principles of participatory management of mental illness occurring during and after disasters	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
<p>Column C: K- Knowledge, S – Skill, A – Attitude / professionalism, C- Communication. Column D: K – Knows, KH – Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation</p>									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
INTEGRATION									
PHYSIOLOGY									
PY10.7	Describe and discuss functions of cerebral cortex, basal ganglia, thalamus, hypothalamus, cerebellum and limbic system and their abnormalities	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		Psychiatry	Human Anatomy
PY10.8	Describe and discuss behavioural and EEG characteristics during sleep and mechanism responsible for its production	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		Psychiatry	

Number	COMPETENCY The student should be able to	Domain in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PY10.9	Describe and discuss the physiological basis of memory, learning and speech	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		Psychiatry	
PY10.12	Identify normal EEG forms	S	S	Y	Small group teaching	OSPE / Viva voce		Psychiatry	
PHARMACOLOGY									
PH1.19	Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of the drugs which act on CNS, (including anxiolytics, sedatives & hypnotics, antipsychotic, antidepressant drugs, antimaniacs, opioid agonists and antagonists, drugs used for neurodegenerative disorders, antiepileptics drugs)	K	KH	Y	Lecture	Written/ Viva voce		Psychiatry , Physiology	
PH1.20	Describe the effects of acute and chronic ethanol intake. Describe the symptoms and management of methanol and ethanol poisonings	K	KH	Y	Lecture, Small group discussions	Written/ Viva voce		Psychiatry	

Number	COMPETENCY The student should be able to	Domain in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PH1.22	Describe drugs of abuse (dependence, addiction, stimulants, depressants, psychedelics, drugs used for criminal offences)	K	KH	Y	Lecture, Small group discussions	Written / Viva voce		Psychiatry	Forensic Medicine
PH1.23	Describe the process and mechanism of drug deaddiction	K/S	KH	Y	Lecture, Small group discussions	Written / Viva voce		Psychiatry	
PH5.5	Demonstrate an understanding of the caution in prescribing drugs likely to produce dependence and recommend the line of management	K	KH	Y	Small group discussion	Short note/Viva voce		Psychiatry	
PH5.6	Demonstrate ability to educate public & patients about various aspects of drug use including drug dependence and OTC drugs.	A/C	SH	Y	Small group discussion	Skill station		Psychiatry	
COMMUNITY MEDICINE									
CM15.1	Define and describe the concept of mental Health	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Psychiatry	

Number	COMPETENCY The student should be able to	Domain in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
CM15.2	Describe warning signals of mental health disorder	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Psychiatry	
CM15.3	Describe National Mental Health program	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Psychiatry	
FORENSIC MEDICINE AND TOXICOLOGY									
FM3.17	Describe and discuss the sexual perversions fetichism, transvestism, voyeurism, sadism, necrophagia, masochism, exhibitionism, frotteurism, Necrophilia	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology, Psychiatry	
FM5.1	Classify common mental illnesses including post-traumatic stress disorder (PTSD)	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Psychiatry	
FM5.2	Define, classify and describe delusions, hallucinations, illusion, lucid interval and obsessions with exemplification	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Psychiatry	

Number	COMPETENCY The student should be able to	Domain in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM5.3	Describe civil and criminal responsibilities of a mentally ill person	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Psychiatry	
FM5.4	Differentiate between true insanity from feigned insanity	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Psychiatry	
FM5.5	Describe & discuss Delirium tremens	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Psychiatry , General Medicine	
FM5.6	Describe the Indian Mental Health Act, 1987 with special reference to admission, care and discharge of a mentally ill person	K	K/KH	N	Lecture, Small group discussion	Written/ Viva voce		Psychiatry	
GENERAL MEDICINE									
IM17.14	Counsel patients with migraine and tension headache on lifestyle changes and need for prophylactic therapy	A/C	SH	N	DOAP session	Skill Assessment		Pharmacology	Psychiatry

Number	COMPETENCY The student should be able to	Domain in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM21.8	Enumerate the indications for psychiatric consultation and describe the precautions to be taken in a patient with suspected suicidal ideation / gesture	K	KH	Y	DOAP session	Skill assessment		Forensic Medicine, Psychiatry	
IM24.2	Perform multidimensional geriatric assessment that includes medical, psycho-social and functional components	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Psychiatry	
IM24.5	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of depression in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
IM24.7	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of personality changes in the elderly	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry

Number	COMPETENCY The student should be able to	Doma in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessmen t method	Number required to certify P	Vertical Integration	Horizontal Integration
IM24.19	Enumerate and describe the social problems in the elderly including isolation, abuse, change in family structure and their impact on health	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PEDIATRICS									
PE1.2	Discuss and describe the patterns of growth in infants, children and Adolescents	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE1.5	Define development and discuss the normal developmental milestones with respect to motor, behaviour, social, adaptive and language	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry

Number	COMPETENCY The student should be able to	Domain in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE5.4	Describe the clinical features, diagnosis and management of Breath Holding spells	K	K	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE5.5	Describe the clinical features, diagnosis and management of Temper tantrums	K	K	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE5.7	Describe the clinical features, diagnosis and management of Fussy infant	K	K	N	Lecture, Small group discussion	Written			Psychiatry
PE5.10	Discuss the role of child guidance clinic in children with Behavioral problems and the referral criteria	K	K	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.2	Describe the physical , physiological and psychological changes during Adolescence (Puberty)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry

Number	COMPETENCY The student should be able to	Domain in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE6.4	Describe Adolescent sexuality and common problems related to it	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.5	Explain Adolescent Nutrition and common nutritional problems	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.6	Discuss the common Adolescent Eating disorders (Anorexia Nervosa, Bulimia)	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
PE6.7	Describe the common mental health problems during Adolescence	K	KH	Y	Lecture, Small Group discussion	Written/ Viva voce			Psychiatry
PE6.13	Enumerate the prevalence and the importance of recognition of sexual drug abuse in adolescents and children	K	K	N	Lecture, Small group discussion	Written/ Viva voce			Psychiatry

Number	COMPETENCY The student should be able to	Domain in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PHYSICAL MEDICINE AND REHABILITATION									
PM 9.1	Describe rehabilitative aspects as they pertain to the elderly including patients with dementia, depression, incontinence immobility and nutritional needs	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine, Psychiatry
DERMATOLOGY, VENEREOLOGY AND LEPROSY									
DR9.7	Enumerate and describe the complications of leprosy and its management, including understanding disability and stigma	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		General Medicine	Pharmacology, Psychiatry
FORENSIC MEDICINE AND TOXICOLOGY									
FM2.5	Discuss moment of death, modes of death- coma, asphyxia and syncope	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Psychiatry	Pathology

Number	COMPETENCY The student should be able to	Doma in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessmen t method	Number required to certify P	Vertical Integration	Horizontal Integration
FM3.14	SEXUAL OFFENCES Describe and discuss the examination of the victim of an alleged case of rape, and the preparation of report, framing the opinion and preservation and despatch of trace evidences in such cases	K	K/KH	Y	Lecture, Small group discussion, Bedside clinic, DOAP session	Written/ Viva voce / OSCE		Obstetrics & Gynaecolo gy, Psychiatry	
FM3.15	SEXUAL OFFENCES Describe and discuss examination of accused and victim of sodomy, preparation of report, framing of opinion, preservation and despatch of trace evidences in such cases	K	K/KH	Y	Lecture, Small group discussion, Bedside clinic, DOAP session	Written/ Viva voce / OSCE		Obstetrics & Gynaecolo gy, Psychiatry	

Number	COMPETENCY The student should be able to	Domain in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM3.16	SEXUAL OFFENCES Describe and discuss adultery and unnatural sexual offences- sodomy, incest, lesbianism, buccal coitus, bestiality, indecent assault and preparation of report, framing the opinion and preservation and despatch of trace evidences in such cases	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology, Psychiatry	

Modifications are made as per the National Medical Commission (Under Graduate Medical Education Board, 2023) Notification No. U. 14021/8/2023-UGMEB dated 1st August 2023

Teaching hours have been shifted from Third Professional MBBS (Part I) to Third Professional MBBS (Part II).

Lectures: 15

SGL: 15

SDL: 15

Total: 45

Clinical Postings have been removed from Second Professional MBBS and added to Third Professional MBBS (Part II). The weeks have increased as well by 2.

Third Professional MBBS (Part I): 2 weeks

Third Professional MBBS (Part II): 4 weeks

PAPER - I

Sr. No.	Topic	Competencies
1	Introduction to psychiatry	PS 3.1 to PS 3.12
2	Substance use disorders	PS 4.1 to PS 4.7
3	Psychotic disorders	PS 5.1 to PS 5.6
4	Depression	PS 6.1 to PS 6.7
5	Bipolar Disorder	PS 7.1 to PS 7.7
6	Anxiety disorders	PS 8.1 to PS 8.7

7	Stress related disorders	PS 9.1 to PS 9.7
8	Somatoform disorders	PS 10.1 to PS 10.7

PAPER - II

Sr. No.	Topic	Competencies
1	Personality disorders	PS 11.1 to PS 11.7
2	Psychosomatic disorders	PS 12.1 to PS 12.7
3	Psychosexual and gender identity disorders	PS 13.1 to PS 13.7
4	Psychiatric disorders in childhood and adolescence	PS 14.1 to PS 14.6
5	Mental retardation	PS 15.1 to PS 15.4
6	Psychiatric disorders in elderly	PS 16.1 to PS 16.5
7	Psychiatric emergencies:	PS 17.1 to PS 17.3
8	Therapeutics	PS 18.1 to PS 18.3
9	Miscellaneous	PS 19.1 to PS 19.6

DERMATOLOGY, VENEREOLOGY AND LEPROSY

DERMATOLOGY, VENEREOLOGY AND LEPROSY

a. Competencies:

- 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 syndromic approach to the recognition, diagnosis, prevention, counselling, 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.

b. Broad subject specific objectives:

Knowledge:

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

- Demonstrate sound knowledge of common diseases, their clinical manifestations, including emergent situations and of investigative procedures to confirm their diagnosis
- Demonstrate comprehensive knowledge of various modes of therapy used in treatment of cutaneous, sexually transmitted diseases and leprosy

- Describe the mode of action of commonly used drugs, their doses, side effects/toxicity. indications and contra-indications and interactions
- Describe commonly used modes of management including the medical and surgical procedures available for the treatment of various diseases and to offer a comprehensive plan of management for a given disorder

c. Skills:

The student shall be able to

- Interview the patient, elicit relevant and correct information and describe the history in a chronological order:
- Conduct clinical examination, elicit and interpret physical findings and diagnose common disorders and emergencies.
- Demonstrate simple, routine investigative and laboratory procedures required for making the bed-side diagnosis, especially the examination of scrapings for fungus,
- preparation of slit smears and staining for AFB for leprosy patients and for STD cases and take a skin biopsy for diagnostic purposes.
- Manage common diseases and recognizing the need for referral for specialized care, in case of inappropriateness of therapeutic response.

d. Integration:

The teaching should be aligned and integrated horizontally and vertically in order to emphasize the biologic basis of diseases of the skin, sexually transmitted diseases and leprosy

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DERMATOLOGY, VENEROLOGY AND LEPROSY (CODE: DR)									
DERMATOLOGY, VENEREOLOGY & LEPROSY									
Topic: Acne, Number of competencies : (03), Number of procedures that require certification : (NIL)									
DR1.1	Enumerate the causative and risk factors of acne	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
DR1.2	Identify and grade the various common types of acne	S	SH	Y	Bedside clinic	Skill assessment			
DR1.3	Describe the treatment and preventive measures for various kinds of acne	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic : Vitiligo, Number of competencies : (02), Number of procedures that require certification : (NIL)									
DR2.1	Identify and differentiate vitiligo from other causes of hypopigmented lesions	S	S	Y	Bedside clinic	Skill assessment			
DR2.2	Describe the treatment of vitiligo	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic : Papulosquamous disorders, Number of competencies : (03), Number of procedures that require certification : (NIL)									
DR3.1	Identify and distinguish psoriatic lesions from other causes	K	SH	Y	Bedside clinic	Skill assessment/ Written/ Viva voce			
DR3.2	Demonstrate the grattage test	S	SH	Y	Bedside clinic	Skill assessment			
DR3.3	Enumerate the indications for and describe the various modalities of treatment of psoriasis including topical, systemic and phototherapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Lichen Planus, Number of competencies : (02) Number of procedures that require certification : (NIL)									
DR4.1	Identify and distinguish lichen planus lesions from other causes	S	SH	Y	Bedside clinic	Skill assessment			
DR4.2	Enumerate and describe the treatment modalities for lichen planus	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Scabies, Number of competencies : (03), Number of procedures that require certification : (NIL)									
DR5.1	Describe the etiology, microbiology, pathogenesis, natural history, clinical features, presentations and complications of scabies in adults and children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	
DR5.2	Identify and differentiate scabies from other lesions in adults and children	S	SH	Y	Bedside clinic	Skill assessment		Pediatrics	
DR5.3	Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	Pharmacology
Topic: Pediculosis, Number of competencies : (02), Number of procedures that require certification : (NIL)									
DR6.1	Describe the etiology pathogenesis and diagnostic features of pediculosis in adults and children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	Microbiology
DR6.2	Identify and differentiate pediculosis from other skin lesions in adults and children	S	SH	Y	Bedside clinic	Skill assessment		Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Fungal Infections, Number of competencies : (03), Number of procedures that require certification : (NIL)									
DR7.1	Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of dermatophytes in adults and children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	Microbiology
DR7.2	Identify Candida species in fungal scrapings and KOH mount	S	SH	Y	DOAP session	Skill assessment			Microbiology
DR7.3	Describe the pharmacology and action of antifungal (systemic and topical) agents. Enumerate side effects of antifungal therapy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Microbiology, Pharmacology
Topic : Viral infections, Number of competencies (07), Number of procedures that require certification: (NIL)									
DR8.1	Describe the etiology, microbiology, pathogenesis and clinical presentations and diagnostic features of common viral infections of the skin in adults and children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pediatrics	Microbiology
DR8.2	Identify and distinguish herpes simplex and herpes labialis from other skin lesions	S	SH	Y	DOAP session	Skill assessment			
DR8.3	Identify and distinguish herpes zoster and varicella from other skin lesions	S	SH	Y	DOAP session	Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR8.4	Identify and distinguish viral warts from other skin lesions	S	SH	Y	DOAP session	Skill assessment			
DR8.5	Identify and distinguish molluscum contagiosum from other skin lesions	S	SH	Y	DOAP session	Skill assessment			
DR8.6	Enumerate the indications, describe the procedure and perform a Tzanck smear	S	SH	Y	DOAP session	Skill assessment			
DR8.7	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for common viral illnesses of the skin	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pharmacology
Topic: Leprosy, Number of competencies: (07), Number of procedures that require certification : (NIL)									
DR9.1	Classify, describe the epidemiology, etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of Leprosy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Microbiology, Community Medicine
DR9.2	Demonstrate (and classify based on) the clinical features of leprosy including an appropriate neurologic examination	S	SH	Y	Bedside clinic	Bedside clinic/ Skill assessment		General Medicine	
DR9.3	Enumerate the indications and observe the performance of a slit skin smear in patients with leprosy	S	KH	Y	Bedside clinic, DOAP session	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR9.4	Enumerate, describe and identify lepra reactions and supportive measures and therapy of lepra reactions	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pharmacology
DR9.5	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for various classes of leprosy based on national guidelines	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pharmacology, Community Medicine
DR9.6	Describe the treatment of Leprosy based on the WHO guidelines	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pharmacology, Community Medicine
DR9.7	Enumerate and describe the complications of leprosy and its management, including understanding disability and stigma.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pharmacology, Psychiatry
Topic: Sexually Transmitted Diseases, Number of competencies : (11), Number of procedures that require certification : (NIL)									
DR10.1	Identify and classify syphilis based on the presentation and clinical manifestations	S	SH	Y	Bedside clinic	Skill assessment		General Medicine	Microbiology
DR10.2	Identify spirochete in a dark ground microscopy	S	SH	Y	DOAP session	Skill assessment			Microbiology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR10.3	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for syphilis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pharmacology, Microbiology
DR10.4	Describe the prevention of congenital syphilis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
DR10.5	Counsel in a non-judgemental and empathetic manner patients on prevention of sexually transmitted disease	C	SH	Y	DOAP session	Skill assessment		General Medicine	
DR10.6	Describe the etiology, diagnostic and clinical features of non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Microbiology
DR10.7	Identify and differentiate based on the clinical features non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)	S	SH	Y	Bedside clinic	Skill assessment		General Medicine	Microbiology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR10.8	Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the non-syphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pharmacology, Microbiology
DR10.9	Describe the syndromic approach to ulcerative sexually transmitted disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
DR10.10	Describe the etiology, diagnostic and clinical features and management of gonococcal and non-gonococcal urethritis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
DR10.11	Describe the etiology, diagnostic and clinical features and management of vaginal discharge	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
Topic : HIV Number of competencies : (03) Number of procedures that require certification : (NIL)									
DR11.1	Describe the etiology, pathogenesis and clinical features of the dermatologic manifestations of HIV and its complications including opportunistic infections	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Microbiology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR11.2	Identify and distinguish the dermatologic manifestations of HIV, its complications, opportunistic infections and adverse reactions	S	SH	Y	Bedside clinic	Skill assessment		General Medicine	Microbiology
DR11.3	Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for dermatologic lesions in HIV	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pharmacology, Microbiology
Topic : Dermatitis and Eczema, Number of competencies : (07), Number of procedures that require certification : (NIL)									
DR12.1	Describe the aetiopathogenesis of eczema	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
DR12.2	Identify eczema and differentiate it from lichenification and changes of aging	S	SH	Y	Bedside clinic	Skill assessment			
DR12.3	Classify and grade eczema	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
DR12.4	Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the treatment of eczema	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR12.5	Define erythroderma. Enumerate and identify the causes of erythroderma. Discuss the treatment	S	KH	Y	Bedside clinic	Written/ Skill assessment			
DR12.6	Identify and distinguish exfoliative dermatitis from other skin lesions	S	SH	Y	Bedside clinic	Skill assessment			
DR12.7	Identify and distinguish fixed drug eruptions and Steven Johnson syndrome from other skin lesions	S	SH	Y	Bedside clinic	Skill assessment		General Medicine	Pathology, Microbiology
Topic : Vesicubullous Lesions, Number of competencies : (03) Number of procedures that require certification : (NIL)									
DR13.1	Distinguish bulla from vesicles	S	SH	Y	Bedside clinic	Skill assessment			
DR13.2	Demonstrate the Tzanck test, nikolsky sign and bulla spread sign	S	SH	Y	Bedside clinic	Skill assessment			
DR13.3	Calculate the body surface area of involvement of vesiculobullous lesions	S	SH	Y	Bedside clinic	Skill assessment			
Topic: Urticaria Angioedema Number of competencies : (05), Number of procedures that require Certification : (NIL)									
DR14.1	Describe the etiology, pathogenesis and clinical precipitating features and classification of Urticaria and angioedema	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Microbiology, Pathology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR14.2	Identify and distinguish urticarial from other skin lesions	S	SH	Y	Bedside clinic	Skill assessment			
DR14.3	Demonstrate dermographism	S	SH	Y	Bedside clinic	Skill assessment			
DR14.4	Identify and distinguish angioedema from other skin lesions	S	SH	Y	Bedside clinic	Skill assessment			
DR14.5	Enumerate the indications and describe the pharmacology indications and adverse reactions of drugs used in the urticaria and angioedema	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pharmacology
Topic: Pyoderma, Number of competencies : (04) Number of procedures that require certification : (NIL)									
DR15.1	Identify and distinguish folliculitis impetigo and carbuncle from other skin lesions	S	SH	Y	Bedside clinic	Skill assessment			
DR15.2	Identify staphylococcus on a gram stain	S	SH	Y	Bedside clinic	Skill assessment			Microbiology
DR15.3	Enumerate the indications and describe the pharmacology, indications and adverse reactions of topical and systemic drugs used in treatment of pyoderma	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	Microbiology, Pharmacology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR15.4	Enumerate the indications for surgical referral	S	KH	Y	DOAP session	Written/ Viva voce		General Surgery	
Topic : Collagen Vascular disease, Number of competencies : (02), Number of procedures that require certification : (NIL)									
See also major competencies listed in General Medicine									
DR16.1	Identify and distinguish skin lesions of SLE	S	SH	Y	Bedside clinic	Skill assessment		General Medicine	Pathology
DR16.2	Identify and distinguish Raynaud's phenomenon	S	SH	Y	Bedside clinic	Skill assessment		General Medicine	Pathology
Topic : Nutritional Deficiencies and Skin Number of competencies : (04), Number of procedures that require certification : (NIL)									
DR17.1	Enumerate and identify the cutaneous findings in vitamin A deficiency	K/S	SH	Y	Lecture, Small group discussion, Bedside clinic	Skill assessment/ Viva voce		General Medicine, Pediatrics, Biochemistry	
DR17.2	Enumerate and describe the various skin changes in Vitamin B complex deficiency	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics, Biochemistry	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DR17.3	Enumerate and describe the various changes in Vitamin C deficiency	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics, Biochemistry	
DR17.4	Enumerate and describe the various changes in Zinc deficiency	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Pediatrics, Biochemistry	
Topic: Systemic diseases and the skin Number of competencies : (02) Number of procedures that require certification : (NIL)									
DR18.1	Enumerate the cutaneous features of Type 2 diabetes	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
DR18.2	Enumerate the cutaneous features of hypo/hyper-thyroidism	K	K	Y	Lecture, Small group	Written/ Viva voce		General Medicine	
<p>Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation</p>									

Number	COMPETENCY The student should be able to	Domain in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
INTEGRATION									
HUMAN ANATOMY									
AN4.2	Describe structure & function of skin with its appendages	K	KH	Y	Lecture, DOAP session	Written/ Viva voce		Dermatology, Venereology & Leprosy	
AN4.4	Describe modifications of deep fascia with its functions	K	KH	Y	Lecture, DOAP session	Written/ Viva voce		Dermatology, Venereology & Leprosy	
AN4.5	Explain principles of skin incisions	K	KH	N	Lecture	Written		Dermatology, Venereology & Leprosy	
PATHOLOGY									
PA34.1	Describe the risk factors, pathogenesis, pathology and natural history of squamous cell carcinoma of the skin	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Dermatology, Venereology & Leprosy	
PA34.2	Describe the risk factors, pathogenesis, pathology and natural history of basal cell carcinoma of the skin	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Dermatology, Venereology & Leprosy	

Number	COMPETENCY The student should be able to	Domain in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PA34.3	Describe the distinguishing features between a nevus and melanoma. Describe the etiology, pathogenesis, risk factors, morphology, clinical features and metastases of melanoma	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Dermatology, Venereology & Leprosy	
PA34.4	Identify, distinguish and describe common tumors of the skin	S	SH	N	DOAP session	Skill Assessment		Dermatology, Venereology & Leprosy	
MICROBIOLOGY									
MI4.3	Describe the etio-pathogenesis of Skin and soft tissue infections and discuss the clinical course, and the laboratory diagnosis.	K	KH	Y	Lecture	Written/ Viva voce		Dermatology, Venereology & Leprosy, General Surgery	
MI7.2	Describe the etio-pathogenesis and discuss the laboratory diagnosis of sexually transmitted infections. Recommend preventive measures, wherever relevant.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Dermatology, Venereology & Leprosy, Obstetrics & Gynaecology	

Number	COMPETENCY The student should be able to	Domain in K/S/ A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PHARMACOLOGY									
PH1.46	Describe the mechanisms of action, types, doses, side effects, indications and contraindications of antileprotic drugs	K	KH	Y	Lecture	Written/ Viva voce		Dermatology, Venereology & Leprosy	Microbiology
PH1.57	Describe drugs used in skin disorders	K	KH	Y	Lecture	Written/ Viva voce		Dermatology, Venereology & Leprosy	
PEDIATRICS									
PE31.4	Identify Atopic dermatitis and manage	S	SH		Bedside clinics, Skill Lab	Skill Assessment		Dermatology, Venereology & Leprosy	

Modifications are made as per the National Medical Commission (Under Graduate Medical Education Board, 2023)
Notification No. U. 14021/8/2023-UGMEB dated 1st August 2023

Teaching hours have been shifted from Third Professional MBBS (Part I) to Third Professional MBBS (Part II).

Lectures: 15

SGL: 10

SDL: 15

Total: 40

GENERAL SURGERY

a. Competencies

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
- General knowledge about organ retrieval from deceased donor and living donor
- Ability to administer informed consent and counsel patient prior to surgical procedures,
- Commitment to advancement of quality and patient safety in surgical practice.

b. Broad subject specific objectives

Knowledge:

At the end of course, the student should be able to:

- Describe aetiology, pathophysiology, principles of diagnosis and management of common surgical problems including emergencies in adult and children.
- Define indications and methods for fluid and electrolytes 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 anaesthetic agents, their indications, contraindications, mode of administration, and side effects.

c. Skills

At the end of the course, the student should be able to:

- Diagnose common surgical conditions both acute and chronic, in adults and children.
- Plan various laboratory tests for surgical conditions and interpret the results.
- Identify and manage patients of hemorrhagic, septicaemia and other types of shock.
- Be able to maintain patent air-way and resuscitate.
- Monitor patient 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 preoperative, operative and post operative care and monitoring.
- Treat open wound including preventive measures against tetanus and gas gangrene.
- Diagnose neonatal and paediatric surgical emergencies and provide sound primary care before referring the patient to secondary/ tertiary centres.
- Identify congenital anomalies and refer them for appropriate management.

d. Integration:

The teaching should 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

- Apply knowledge of basic medical sciences and other relevant subjects to support understanding of various pathologies, facilitate examination of and intervention for the patients.
- To apply the principles of quality of health care, legal and ethical principles and regulations as recommended by Medical Council of India and WHO.

GENERAL SURGERY (CODE: SU)

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Metabolic response to injury Number of competencies : (03) Number of procedures that require certification: (NIL)									
SU1.1	Describe Basic concepts of homeostasis, enumerate the metabolic changes in injury and their mediators.	K	KH	Y	Lecture, Bed side clinic, Small group discussion	Written/ Viva voce		Physiology, Biochemistry	
SU1.2	Describe the factors that affect the metabolic response to injury.	K	KH	Y	Lecture, Bed side clinic, Small group discussion	Written/ Viva voce		Biochemistry	
SU1.3	Describe basic concepts of perioperative care.	K	KH	Y	Lecture, Bed side clinic, Small group discussion	Written/ Viva voce			
Topic: Shock Number of competencies: (03) Number of procedures that require certification: (NIL)									
SU2.1	Describe Pathophysiology of shock, types of shock & principles of resuscitation including fluid replacement and monitoring.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
SU2.2	Describe the clinical features of shock and its appropriate treatment.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU2.3	Communicate and counsel patients and families about the treatment and prognosis of shock demonstrating empathy and care	A/C	SH	Y	DOAP session	Skill assessment		AETCOM	
Topic: Blood and blood components Number of competencies: (03) Number of procedures that require certification: (NIL)									
SU3.1	Describe the Indications and appropriate use of blood and blood products and complications of blood transfusion.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
SU3.2	Observe blood transfusions.	S	SH	Y	Small group discussion, DOAP session	Skills assessment / Log book			
SU3.3	Counsel patients and family/ friends for blood transfusion and blood donation.	A/C	SH	Y	DOAP session	Skills assessment			
Topic: Burns Number of competencies: (04) Number of procedures that require certification: (NIL)									
SU4.1	Elicit document and present history in a case of Burns and perform physical examination. Describe Pathophysiology of Burns.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology	
SU4.2	Describe Clinical features, Diagnose type and extent of burns and plan appropriate treatment.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU4.3	Discuss the Medicolegal aspects in burn injuries.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU4.4	Communicate and counsel patients and families on the outcome and rehabilitation demonstrating empathy and care.	A /C	SH	Y	Small group discussion, Role play, Skills assessment	Viva voce			
Topic: Wound healing and wound care Number of competencies: (04) Number of procedures that require certification: (NIL)									
SU5.1	Describe normal wound healing and factors affecting healing.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
SU5.2	Elicit, document and present a history in a patient presenting with wounds.	C	SH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU5.3	Differentiate the various types of wounds, plan and observe management of wounds.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU5.4	Discuss medico legal aspects of wounds	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Surgical infections Number of competencies: (02) Number of procedures that require certification: (NIL)									
SU6.1	Define and describe the aetiology and pathogenesis of surgical Infections	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU6.2	Enumerate Prophylactic and therapeutic antibiotics Plan appropriate management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Surgical Audit and Research Number of competencies: (02) Number of procedures that require certification: (NIL)									
SU7.1	Describe the Planning and conduct of Surgical audit	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
SU7.2	Describe the principles and steps of clinical research in General Surgery	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	
Topic: Ethics Number of competencies: (03) Number of procedures that require certification: (NIL)									
SU8.1	Describe the principles of Ethics as it pertains to General Surgery	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment	-	Forensic Medicine, AETCOM	
SU8.2	Demonstrate Professionalism and empathy to the patient undergoing General Surgery	A/C	SH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		Forensic Medicine, AETCOM	
SU8.3	Discuss Medico-legal issues in surgical practice	A/C	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Forensic Medicine, AETCOM	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Investigation of surgical patient Number of competencies (03) Number of procedures that require certification: (NIL)									
SU9.1	Choose appropriate biochemical, microbiological, pathological, imaging investigations and interpret the investigative data in a surgical patient	C	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemistry, Microbiology, Pathology	
SU9.2	Biological basis for early detection of cancer and multidisciplinary approach in management of cancer	C	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU9.3	Communicate the results of surgical investigations and counsel the patient appropriately	C	SH	Y	DOAP session	Skill assessment			
Topic: Pre, intra and post- operative management. Number of competencies: (04) Number of procedures that require certification: (NIL)									
SU10.1	Describe the principles of perioperative management of common surgical procedures	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU10.2	Describe the steps and obtain informed consent in a simulated environment	S/A/C	SH	Y	DOAP session	Skill assessment / Log book		AETCOM	
SU10.3	Observe common surgical procedures and assist in minor surgical procedures; Observe emergency lifesaving surgical procedures.	S	KH	Y	DOAP sessions	Log book			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU10.4	Perform basic surgical Skills such as First aid including suturing and minor surgical procedures in simulated environment	S	P	Y	DOAP session	Skill assessment			
Topic: Anaesthesia and pain management Number of competencies: (06) Number of procedures that require certification: (NIL)									
SU11.1	Describe principles of Preoperative assessment.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Anaesthesia
SU11.2	Enumerate the principles of general, regional, and local Anaesthesia.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Anaesthesia
SU11.3	Demonstrate maintenance of an airway in a mannequin or equivalent	S	SH	Y	DOAP session	Skill assessment			Anaesthesia
SU11.4	Enumerate the indications and principles of day care General Surgery	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU11.5	Describe principles of providing post-operative pain relief and management of chronic pain.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Anaesthesia
SU11.6	Describe Principles of safe General Surgery	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Nutrition and fluid therapy Number of competencies: (03) Number of procedures that require certification: (NIL)									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU12.1	Enumerate the causes and consequences of malnutrition in the surgical patient	K	KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce		Physiology	
SU12.2	Describe and discuss the methods of estimation and replacement of the fluid and electrolyte requirements in the surgical patient	K	KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce		Physiology	
SU12.3	Discuss the nutritional requirements of surgical patients, the methods of providing nutritional support and their complications	K	KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce		Biochemistry	
Topic: Transplantation Number of competencies: (04) Number of procedures that require certification: (NIL)									
SU13.1	Describe the immunological basis of organ transplantation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
SU13.2	Discuss the Principles of immunosuppressive therapy.Enumerate Indications, describe surgical principles, management of organ transplantation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology, Pharmacology	
SU13.3	Discuss the legal and ethical issues concerning organ donation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		AETCOM	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU13.4	Counsel patients and relatives on organ donation in a simulated environment	S	SH	Y	DOAP session	Skill assessment		AETCOM	
Topic: Basic Surgical Skills Number of competencies: (04) Number of procedures that require certification: (NIL)									
SU14.1	Describe Aseptic techniques, sterilization and disinfection.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
SU14.2	Describe Surgical approaches, incisions and the use of appropriate instruments in Surgery in general.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU14.3	Describe the materials and methods used for surgical wound closure and anastomosis (sutures, knots and needles)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU14.4	Demonstrate the techniques of asepsis and suturing in a simulated environment	S	SH	Y	DOAP session	Skill assessment / Log book			
Topic: Biohazard disposal Number of competencies: (01) Number of procedures that require certification: (NIL)									
SU15.1	Describe classification of hospital waste and appropriate methods of disposal.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
Topic: Minimally invasive General Surgery Number of competencies: (01) Number of procedures that require certification: (NIL)									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU16.1	Minimally invasive General Surgery: Describe indications advantages and disadvantages of Minimally invasive General Surgery	K	K	Y	Lecture, Demonstration, Bedside clinic, Discussion	Theory/ Practical / Orals/ Written/ Viva voce			
Topic: Trauma Number of competencies: (10) Number of procedures that require certification: (NIL)									
SU17.1	Describe the Principles of FIRST AID	S	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU17.2	Demonstrate the steps in Basic Life Support. Transport of injured patient in a simulated environment	S	SH	Y	DOAP session	Skill assessment			Anaesthe siology
SU17.3	Describe the Principles in management of mass casualties	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU17.4	Describe Pathophysiology, mechanism of head injuries	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU17.5	Describe clinical features for neurological assessment and GCS in head injuries	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU17.6	Chose appropriate investigations and discuss the principles of management of head injuries	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU17.7	Describe the clinical features of soft tissue injuries. Chose appropriate investigations and discuss the principles of management.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU17.8	Describe the pathophysiology of chest injuries.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU17.9	Describe the clinical features and principles of management of chest injuries.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU17.10	Demonstrate Airway maintenance. Recognize and manage tension pneumothorax, hemothorax and flail chest in simulated environment.	S	SH	Y	DOAP session	Skill assessment / Log book			Anaesthe siology
Topic: Skin and subcutaneous tissue Number of competencies: (03) Number of procedures that require certification: (NIL)									
SU18.1	Describe the pathogenesis, clinical features and management of various cutaneous and subcutaneous infections.	K	KH	Y	Lecture, Small group Discussion	Written/ Viva voce			
SU18.2	Classify skin tumors Differentiate different skin tumors and discuss their management.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU18.3	Describe and demonstrate the clinical examination of surgical patient including swelling and order relevant investigation for diagnosis. Describe and discuss appropriate treatment plan.	S	SH	Y	Bedside clinic, Small group discussion, DOAP session	Skill assessment			
Topic: Developmental anomalies of face, mouth and jaws Number of competencies: (02) Number of procedures that require certification: (NIL)									
SU19.1	Describe the etiology and classification of cleft lip and palate	K	KH	Y	Lecture, Small group Discussion	Written/ Viva voce		Human Anatomy	
SU19.2	Describe the Principles of reconstruction of cleft lip and palate	K	KH	Y	Lecture, Small group Discussion	Written/ Viva voce		Human Anatomy	
Topic: Oropharyngeal cancer Number of competencies: (02) Number of procedures that require certification: (NIL)									
SU20.1	Describe etiopathogenesis of oral cancer symptoms and signs of oropharyngeal cancer.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		ENT	
SU20.2	Enumerate the appropriate investigations and discuss the Principles of treatment.	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Disorders of salivary glands Number of competencies: (02) Number of procedures that require certification: (NIL)									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU21.1	Describe surgical anatomy of the salivary glands, pathology, and clinical presentation of disorders of salivary glands	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU21.2	Enumerate the appropriate investigations and describe the Principles of treatment of disorders of salivary glands	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Endocrine General Surgery: Thyroid and parathyroid Number of competencies: (06) Number of procedures that require certification: (NIL)									
SU22.1	Describe the applied anatomy and physiology of thyroid	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
SU22.2	Describe the etiopathogenesis of thyroidal swellings	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
SU22.3	Demonstrate and document the correct clinical examination of thyroid swellings and discuss the differential diagnosis and their management	S	SH	Y	Bedside clinic	Skill assessment			
SU22.4	Describe the clinical features, classification and principles of management of thyroid cancer	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU22.5	Describe the applied anatomy of parathyroid	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU22.6	Describe and discuss the clinical features of hypo - and hyperparathyroidism and the principles of their management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine
Topic: Adrenal glands Number of competencies: (03) Number of procedures that require certification: (NIL)									
SU23.1	Describe the applied anatomy of adrenal glands	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
SU23.2	Describe the etiology, clinical features and principles of management of disorders of adrenal gland	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine
SU23.3	Describe the clinical features, principles of investigation and management of Adrenal tumors	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
Topic: Pancreas Number of competencies: (03) Number of procedures that require certification: (NIL)									
SU24.1	Describe the clinical features, principles of investigation, prognosis and management of pancreatitis.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU24. 2	Describe the clinical features, principles of investigation, prognosis and management of pancreatic endocrine tumours	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
SU24. 3	Describe the principles of investigation and management of Pancreatic disorders including pancreatitis and endocrine tumors.	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
Topic: Breast Number of competencies: (05) Number of procedures that require certification: (NIL)									
SU25. 1	Describe applied anatomy and appropriate investigations for breast disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Human Anatomy	
SU25. 2	Describe the etiopathogenesis, clinical features and principles of management of benign breast disease including infections of the breast	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU25.3	Describe the etiopathogenesis, clinical features, Investigations and principles of treatment of benign and malignant tumours of breast.	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		Radiodiagnosis	
SU25.4	Counsel the patient and obtain informed consent for treatment of malignant conditions of the breast	A/ C	SH	Y	DOAP session	Skill assessment			
SU25.5	Demonstrate the correct technique to palpate the breast for breast swelling in a mannequin or equivalent	S	SH	Y	DOAP session	Skill assessment			
Topic: Cardio-thoracic General Surgery - Chest - Heart and Lungs Number of competencies: (04) Number of procedures that require certification: (NIL)									
SU26.1	Outline the role of surgery in the management of coronary heart disease, valvular heart diseases and congenital heart diseases	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
SU26.3	Describe the clinical features of mediastinal diseases and the principles of management	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
SU26.4	Describe the etiology, pathogenesis, clinical features of tumors of lung and the principles of management	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Vascular diseases Number of competencies: (08) Number of procedures that require certification: (NIL)									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU27.1	Describe the etiopathogenesis, clinical features, investigations and principles of treatment of occlusive arterial disease.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment			
SU27.2	Demonstrate the correct examination of the vascular system and enumerate and describe the investigation of vascular disease	S	SH	Y	DOAP session	Skill assessment			
SU27.3	Describe clinical features, investigations and principles of management of vasospastic disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU27.4	Describe the types of gangrene and principles of amputation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment			
SU27.5	Describe the applied anatomy of venous system of lower limb	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
SU27.6	Describe pathophysiology, clinical features, Investigations and principles of management of DVT and Varicose veins	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU27.7	Describe pathophysiology, clinical features, investigations and principles of management of Lymph edema, lymphangitis and Lymphomas	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment			
SU27.8	Demonstrate the correct examination of the lymphatic system	S	SH	Y	DOAP session, Bedside clinic	Skill assessment			
Topic: Abdomen Number of competencies: (18) Number of procedures that require certification: (NIL)									
SU28.1	Describe pathophysiology, clinical features, Investigations and principles of management of Hernias	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment			
SU28.2	Demonstrate the correct technique to examine the patient with hernia and identify different types of hernias.	S	SH	Y	DOAP session, Bedside clinic	Skill assessment			
SU28.3	Describe causes, clinical features, complications and principles of mangament of peritonitis	K	K	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce			
SU28.4	Describe pathophysiology, clinical features, investigations and principles of management of Intra-abdominal abscess, mesenteric cyst, and retroperitoneal tumors	K	K	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU28.5	Describe the applied Anatomy and physiology of esophagus	K	K	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce		Human Anatomy, Physiology	
SU28.6	Describe the clinical features, investigations and principles of management of benign and malignant disorders of esophagus	K	K	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
SU28.7	Describe the applied anatomy and physiology of stomach	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
SU28.8	Describe and discuss the aetiology, the clinical features, investigations and principles of management of congenital hypertrophic pyloric stenosis, Peptic ulcer disease, Carcinoma stomach	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment			
SU28.9	Demonstrate the correct technique of examination of a patient with disorders of the stomach	S	SH	Y	DOAP session, Bedside clinic	Skill assessment			
SU28.10	Describe the applied anatomy of liver. Describe the clinical features, Investigations and principles of management of liver abscess, hydatid disease, injuries and tumors of the liver	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU28.11	Describe the applied anatomy of spleen. Describe the clinical features, investigations and principles of management of splenic injuries. Describe the post-splenectomy sepsis - prophylaxis	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce		Human Anatomy	
SU28.12	Describe the applied anatomy of biliary system. Describe the clinical features, investigations and principles of management of diseases of biliary system	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce		Human Anatomy	
SU28.13	Describe the applied anatomy of small and large intestine	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce		Human Anatomy	
SU28.14	Describe the clinical features, investigations and principles of management of disorders of small and large intestine including neonatal obstruction and Short gut syndrome	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce			
SU28.15	Describe the clinical features, investigations and principles of management of diseases of Appendix including appendicitis and its complications.	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
SU28.16	Describe applied anatomy including congenital anomalies of the rectum and anal canal	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU28.17	Describe the clinical features, investigations and principles of management of common anorectal diseases	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
SU28.18	Describe and demonstrate clinical examination of abdomen. Order relevant investigations. Describe and discuss appropriate treatment plan	S	SH	Y	Bedside clinic, DOAP session, Small group discussion	Skill assessment			
Topic: Urinary System Number of competencies: (11) Number of procedures that require certification: (NIL)									
SU29.1	Describe the causes, investigations and principles of management of Hematuria	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU29.2	Describe the clinical features, investigations and principles of management of congenital anomalies of genitourinary system	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
SU29.3	Describe the Clinical features, Investigations and principles of management of urinary tract infections	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology	
SU29.4	Describe the clinical features, investigations and principles of management of hydronephrosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU29.5	Describe the clinical features, investigations and principles of management of renal calculi	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU29.6	Describe the clinical features, investigations and principles of management of renal tumours	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU29.7	Describe the principles of management of acute and chronic retention of urine	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU29.8	Describe the clinical features, investigations and principles of management of bladder cancer	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
SU29.9	Describe the clinical features, investigations and principles of management of disorders of prostate	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment			
SU29.10	Demonstrate a digital rectal examination of the prostate in a mannequin or equivalent	S	SH	Y	DOAP session	Skill assessment			
SU29.11	Describe clinical features, investigations and management of urethral strictures	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Penis, Testis and scrotum Number of competencies: (06) Number of procedures that require certification: (NIL)									
SU30.1	Describe the clinical features, investigations and principles of management of phimosis, paraphimosis and carcinoma penis.	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
SU30.2	Describe the applied anatomy clinical features, investigations and principles of management of undescended testis.	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		Human Anatomy	
SU30.3	Describe the applied anatomy clinical features, investigations and principles of management of epididymo-orchitis	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		Human Anatomy	
SU30.4	Describe the applied anatomy clinical features, investigations and principles of management of varicocele	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		Human Anatomy	
SU30.5	Describe the applied anatomy, clinical features, investigations and principles of management of Hydrocele	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU30.6	Describe classification, clinical features, investigations and principles of management of tumours of testis	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment			
<p>Column C: K- Knowledge, S – Skill , A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation</p>									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
INTEGRATION									
HUMAN ANATOMY									
AN6.3	Explain the concept of lymphoedema and spread of tumors via lymphatics and venous system	K	KH	N	Lecture	Written		General Surgery	
AN9.2	Breast-Describe the location, extent, deep relations, structure, age changes, blood supply, lymphatic drainage, microanatomy and applied anatomy of breast	K	KH	Y	Practical, Lecture	Written/ Viva voce		General Surgery	
AN10.4	Describe the anatomical groups of axillary lymph nodes and specify their areas of drainage	K	KH	Y	Practical, Lecture	Written/ Viva voce		General Surgery	
AN10.6	Explain the anatomical basis of clinical features of Erb's palsy and Klumpke's paralysis	K	KH	N	Lecture	Written		General Surgery	
AN10.7	Explain anatomical basis of enlarged axillary lymph nodes	K	KH	N	Lecture	Written		General Surgery	
AN11.3	Describe the anatomical basis of Venepuncture of cubital veins	K	KH	Y	Practical, Lecture	Written/ Viva voce		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN12.8	Describe anatomical basis of Claw hand	K	KH	Y	Lecture	Written/ Viva voce		General Surgery	
AN12.10	Explain infection of fascial spaces of palm	K	KH	N	Lecture	Written		General Surgery	
AN12.11	Identify, describe and demonstrate important muscle groups of dorsal forearm with attachments, nerve supply and actions	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment t		General Surgery	
AN12.12	Identify & describe origin, course, relations, branches (or tributaries), termination of important nerves and vessels of back of forearm	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment t		General Surgery	
AN12.13	Describe the anatomical basis of Wrist drop	K	KH	Y	Lecture	Written/ Viva voce		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN12.1 4	Identify & describe compartments deep to extensor retinaculum	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN15.3	Describe and demonstrate boundaries, floor, roof and contents of femoral triangle	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN15.4	Explain anatomical basis of Psoas abscess & Femoral hernia	K	KH	N	Lecture, DOAP session	Written/ Viva voce		General Surgery	
AN16.2	Describe anatomical basis of sciatic nerve injury during gluteal intramuscular injections	K	KH	Y	Lecture, DOAP session	Written/ Viva voce		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN16.3	Explain the anatomical basis of Trendelenburg sign	K	KH	Y	Lecture, DOAP session	Written/ Viva voce		General Surgery	
AN18.3	Explain the anatomical basis of foot drop	K	KH	Y	Lecture, DOAP session	Written/ Viva voce		General Surgery	
AN19.3	Explain the concept of "Peripheral heart"	K	KH	Y	Lecture	Written/ Viva voce		General Surgery	
AN20.4	Explain anatomical basis of enlarged inguinal lymph nodes	K	KH	N	Lecture	Written/ Viva voce		General Surgery	
AN20.5	Explain anatomical basis of varicose veins and deep vein thrombosis	K	KH	Y	Lecture	Written/ Viva voce		General Surgery	
AN20.9	Identify & demonstrate palpation of vessels (femoral, popliteal, dorsalis pedis, post tibial), Mid inguinal point, Surface projection of: femoral nerve, Saphenous opening, Sciatic, tibial, common peroneal & deep peroneal nerve, great and small saphenous veins	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Viva voce/ Skill assessment		General Medicine General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN23.1	Describe & demonstrate the external appearance, relations, blood supply, nerve supply, lymphatic drainage and applied anatomy of oesophagus	K/S	SH	Y	Practical, Lecture, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN23.2	Describe & demonstrate the extent, relations, tributaries of thoracic duct and enumerate its applied anatomy	K/S	SH	Y	Practical, Lecture, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN23.7	Mention the extent, relations and applied anatomy of lymphatic duct	K	KH	Y	Lecture	Written/ Viva voce		General Surgery	
AN27.1	Describe the layers of scalp, its blood supply, its nerve supply and surgical importance	K	KH	Y	Practical, Lecture	Written/ Viva voce		General Surgery	
AN28.8	Explain surgical importance of deep facial vein	K	KH	Y	Lecture	Written		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN28.9	Describe & demonstrate the parts, borders, surfaces, contents, relations and nerve supply of parotid gland with course of its duct and surgical importance	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN28.10	Explain the anatomical basis of Frey's syndrome	K	KH	N	Lecture	Written		General Surgery	
AN29.2	Explain anatomical basis of Erb's & Klumpke's palsy	K	KH	Y	Lecture	Written		General Surgery	
AN29.3	Explain anatomical basis of wry neck	K	KH	N	Lecture	Written		General Surgery	
AN30.1	Describe the cranial fossae & identify related structures.	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN30.2	Describe & identify major foramina with structures passing through them	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN33.2	Describe & demonstrate attachments, direction of fibres, nerve supply and actions of muscles of mastication	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN33.4	Explain the clinical significance of pterygoid venous plexus	K	KH	Y	Lecture	Written		General Surgery	
AN33.5	Describe the features of dislocation of temporomandibular joint	K	KH	N	Lecture	Written		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN34.1	Describe & demonstrate the morphology, relations and nerve supply of submandibular salivary gland & submandibular ganglion	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN34.2	Describe the basis of formation of submandibular stones	K	KH	N	Lecture	Written		General Surgery	
AN35.2	Describe & demonstrate location, parts, borders, surfaces, relations & blood supply of thyroid gland	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN35.5	Describe & demonstrate extent, drainage & applied anatomy of cervical lymph nodes	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN35.8	Describe the anatomically relevant clinical features of Thyroid swellings	K	KH	N	Lecture	Written		General Surgery	
AN35.9	Describe the clinical features of compression of subclavian artery and lower trunk of brachial plexus by cervical rib	K	KH	N	Lecture	Written		General Surgery	
AN43.5	Demonstrate- 1) Testing of muscles of facial expression, extraocular muscles, muscles of mastication, 2) Palpation of carotid arteries, facial artery, superficial temporal artery, 3) Location of internal and external jugular veins, 4) Location of hyoid bone, thyroid cartilage and cricoid cartilage with their vertebral levels	K/S	SH	Y	Practical	Viva voce/ Skill assessment		General Surgery	
AN43.6	Demonstrate surface projection of Thyroid gland, Parotid gland and duct, Pterion, Common carotid artery, Internal jugular vein, Subclavian vein, External jugular vein, Facial artery in the face & Accessory nerve	K/S	SH	N	Practical	Viva voce/ Skill assessment		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN44.1	Describe & demonstrate the Planes (transpyloric, transtuberular, subcostal, lateral vertical, linea alba, linea semilunaris), regions & Quadrants of abdomen	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN44.4	Describe & demonstrate extent, boundaries, contents of Inguinal canal including Hesselbach's triangle.	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN44.5	Explain the anatomical basis of inguinal hernia.	K	KH	Y	Lecture	Written/ Viva voce		General Surgery	
AN44.6	Describe & demonstrate attachments of muscles of anterior abdominal wall	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN44.7	Enumerate common Abdominal incisions	K	KH	N	Lecture	Written		General Surgery	
AN46.1	Describe & demonstrate coverings, internal structure, side determination, blood supply, nerve supply, lymphatic drainage & descent of testis with its applied anatomy	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN46.4	Explain the anatomical basis of varicocele	K	KH	N	Lecture	Written		General Surgery	
AN46.5	Explain the anatomical basis of Phimosis & Circumcision	K	KH	N	Lecture	Written		General Surgery	
AN47.1	Describe & identify boundaries and recesses of Lesser & Greater sac	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN47.2	Name & identify various peritoneal folds & pouches with its explanation.	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN47.3	Explain anatomical basis of Ascites & Peritonitis	K	KH	N	Lecture	Written		General Surgery	
AN47.4	Explain anatomical basis of Subphrenic abscess	K	KH	N	Lecture	Written		General Surgery	
AN47.5	Describe & demonstrate major viscera of abdomen under following headings (anatomical position, external and internal features, important peritoneal and other relations, blood supply, nerve supply, lymphatic drainage and applied aspects)	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN47.6	Explain the anatomical basis of Splenic notch, accessory spleens, Kehr's sign, different types of vagotomy, liver biopsy (site of needle puncture), referred pain in cholecystitis, Obstructive jaundice, referred pain around umbilicus, radiating pain of kidney to groin & Lymphatic spread in carcinoma stomach	K	KH	N	Lecture	Written		General Surgery	
AN47.7	Mention the clinical importance of Calot's triangle	K	KH	N	Lecture	Written		General Surgery	
AN47.10	Enumerate the sites of portosystemic anastomosis	K	KH	Y	Lecture	Written		General Surgery	
AN47.11	Explain the anatomic basis of hematemesis & caput medusae in portal hypertension	K	KH	Y	Lecture	Written/ Viva voce		General Surgery	
AN47.14	Describe the abnormal openings of thoracoabdominal diaphragm and diaphragmatic hernia	K	KH	N	Lecture	Written		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN48.5	Explain the anatomical basis of suprapubic cystostomy, Urinary obstruction in benign prostatic hypertrophy, Retroverted uterus, Prolapse uterus, Internal and external haemorrhoids, Anal fistula, Vasectomy, Tubal pregnancy & Tubal ligation	K	KH	N	Lecture	Written		General Surgery	
AN48.6	Describe neurological basis of automatic bladder	K	KH	N	Lecture	Written		General Surgery	
AN48.7	Mention the lobes involved in benign prostatic hypertrophy and prostatic cancer	K	KH	N	Lecture	Written		General Surgery	
AN48.8	Mention the structures palpable during vaginal and rectal examination	K	KH	N	Lecture	Written		Obstetrics & Gynaecology General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN49.4	Describe & demonstrate boundaries, content & applied anatomy of Ischiorectal fossa	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		General Surgery	
AN52.5	Describe the development and congenital anomalies of diaphragm	K	KH	Y	Lecture	Written/ Viva voce		General Surgery	
AN52.6	Describe the development and congenital anomalies of foregut, midgut & hindgut	K	KH	Y	Lecture	Written/ Viva voce		General Surgery	
AN52.7	Describe the development of urinary system	K	KH	Y	Lecture	Written/ Viva voce		General Surgery	
AN53.1	Identify & hold the bone in the anatomical position, describe the salient features, articulations & demonstrate the attachments of muscle groups	K/S	SH	Y	Lecture, DOAP session	Viva voce/ Skill assessment		General Surgery, Obstetrics & Gynaecology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN55.1	Demonstrate the surface marking of regions and planes of abdomen, superficial inguinal ring, deep inguinal ring, McBurney's point, Renal Angle & Murphy's point	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Viva voce/ Skill assessment		General Surgery	
AN55.2	Demonstrate the surface projections of: stomach, liver, fundus of gall bladder, spleen, duodenum, pancreas, ileocaecal junction, kidneys & root of mesentery	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Viva voce/ Skill assessment		General Surgery	
BIOCHEMISTRY									
BI10.1	Describe the cancer initiation promotion oncogenes & oncogene activation.	K	KH	Y	Lectures, Small group discussion	Written/ viva voce		Obstetrics & Gynaecology, General Surgery, Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
BI10.2	Describe various biochemical tumor markers and the biochemical basis of cancer therapy.	K	KH	Y	Lectures, Small group discussion	Written/ viva voce		Obstetrics & Gynaecology, General Surgery, Pathology	
BI10.3	Describe the cellular and humoral components of the immune system & describe the types and structure of antibody	K	KH	Y	Lectures, Small group discussion	Written/ viva voce		Obstetrics & Gynaecology, General Surgery, Pathology	
PATHOLOGY									
PA4.1	Define and describe the general features of acute and chronic inflammation including stimuli, vascular and cellular events	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PA4.2	Enumerate and describe the mediators of acute inflammation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA5.1	Define and describe the process of repair and regeneration including wound healing and its types	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA6.3	Define and describe shock, its pathogenesis and its stages	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA8.1	Describe the diagnostic role of cytology and its application in clinical care	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA8.2	Describe the basis of exfoliative cytology including the technique, stains used	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PA19.1	Enumerate the causes and describe the differentiating features of lymphadenopathy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA19.2	Describe the pathogenesis and pathology of tuberculous lymphadenitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA19.4	Describe and discuss the pathogenesis pathology and the differentiating features of Hodgkin's and non-Hodgkin's lymphoma	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA19.5	Identify and describe the features of Hodgkin's lymphoma in a gross and microscopic specimen	S	SH	Y	DOAP session	Skill assessment		General Surgery	
PA19.6	Enumerate and differentiate the causes of splenomegaly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery, General Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PA22.4	Enumerate blood components and describe their clinical uses	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery, General Medicine	
PA24.4	Describe and etiology and pathogenesis and pathologic features of carcinoma of the stomach	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA24.5	Describe and etiology and pathogenesis and pathologic features of Tuberculosis of the intestine	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA24.6	Describe and etiology and pathogenesis and pathologic and distinguishing features of inflammatory bowel disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA24.7	Describe the etiology and pathogenesis and pathologic and distinguishing features of carcinoma of the colon	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PA25.2	Describe the pathophysiology and pathologic changes seen in hepatic failure and their clinical manifestations, complications and consequences	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, General Surgery	
PA25.4	Describe the pathophysiology, pathology and progression of alcoholic liver disease including cirrhosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, General Surgery	
PA25.5	Describe the etiology, pathogenesis and complications of portal hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, General Surgery	
PA28.10	Describe the etiology, pathogenesis, pathology, laboratory findings, distinguishing features progression and complications of acute and chronic pyelonephritis and reflux nephropathy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy, General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PA28.13	Define, classify and describe the etiology, pathogenesis, pathology, laboratory urinary findings, distinguishing features, progression and complications of renal stone disease and obstructive uropathy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA28.16	Describe the etiology, genetics, pathogenesis, pathology, presenting features and progression of urothelial tumors	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA29.1	Classify testicular tumors and describe the pathogenesis, pathology, presenting and distinguishing features, diagnostic tests, progression and spread of testicular tumors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA29.2	Describe the pathogenesis, pathology, presenting and distinguishing features, diagnostic tests, progression and spread of carcinoma of the penis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PA29.3	Describe the pathogenesis, pathology, hormonal dependency, presenting and distinguishing features, urologic findings and diagnostic tests of benign prostatic hyperplasia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA29.4	Describe the pathogenesis, pathology, hormonal dependency, presenting and distinguishing features, diagnostic tests, progression and spread of carcinoma of the prostate	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA29.5	Describe the etiology, pathogenesis, pathology and progression of prostatitis	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA31.1	Classify and describe the types, etiology, pathogenesis, pathology and hormonal dependency of benign breast disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy, General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PA31.2	Classify and describe the epidemiology, pathogenesis, classification, morphology, prognostic factors, hormonal dependency, staging and spread of carcinoma of the breast	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
PA31.3	Describe and identify the morphologic and microscopic features of carcinoma of the breast	S	SH	N	DOAP session	Skill assessment		General Surgery	
PA32.1	Enumerate, classify and describe the etiology, pathogenesis, pathology and iodine dependency of thyroid swellings	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy , Physiology, General Medicine, Pathology	
PA32.6	Describe the etiology, pathogenesis, manifestations, laboratory, morphologic features, complications and metastases of pancreatic cancer	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PA32.9	Describe the etiology, pathogenesis, manifestations, laboratory and morphologic features of adrenal neoplasms	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy, Physiology, General Medicine, General Surgery	
MICROBIOLOGY									
MI1.4	Classify and describe the different methods of sterilization and disinfection. Discuss the application of the different methods in the laboratory, in clinical and surgical practice	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
MI1.5	Choose the most appropriate method of sterilization and disinfection to be used in specific situations in the laboratory, in clinical and surgical practice	K	KH	Y	Small group discussion s, Case discussion	Written/ Viva voce/ OSPE		General Surgery	
MI7.1	Describe the etio-pathogenesis and discuss the laboratory diagnosis of infections of genitourinary system	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
MI8.7	Demonstrate Infection control practices and use of Personal Protective Equipments (PPE)	S	P	Y	DOAP session	Skill assessment	3 each in (Hand hygiene & PPE)	General Surgery	Community Medicine
COMMUNITY MEDICINE									
CM13.1	Define and describe the concept of Disaster management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery, General Medicine	
CM13.2	Describe disaster management cycle	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery, General Medicine	
CM13.3	Describe man-made disasters in the world and in India	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		General Surgery, General Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
CM13.4	Describe the details of the National Disaster management Authority	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		General Surgery, General Medicine	
FORENSIC MEDICINE AND TOXICOLOGY									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM1.9	<p>Describe the importance of documentation in medical practice in regard to medicolegal examinations, Medical Certificates and medicolegal reports especially</p> <ul style="list-style-type: none"> - 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 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Radiodiagnosis, General Surgery, General Medicine, Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM2.19	Investigation of anaesthetic, operative deaths: Describe and discuss special protocols for conduction of autopsy and for collection, preservation and dispatch of related material evidences	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Anesthesiology, General Surgery	
FM2.25	Describe types of injuries, clinical features, patho-physiology, postmortem findings and medico-legal aspects in cases of burns, scalds, lightning, electrocution and radiations.	K	KH	Y	Lecture, Small group discussion, Autopsy, DOAP session	Written/ Viva voce/ OSPE		General Surgery	
FM3.3	Mechanical injuries and wounds: Define, describe and classify different types of mechanical injuries, abrasion, bruise, laceration, stab wound, incised wound, chop wound, defense wound, self-inflicted/fabricated wounds and their medico-legal aspects.	K	KH	Y	Lectures, Small group discussion, Bed side clinic/ DOAP session	Written/ Viva voce/ OSCE		General Surgery	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM3.4	Mechanical injuries and wounds: define injury, assault & hurt. Describe IPC pertaining to injuries	K	KH	Y	Lectures, Small group discussion	Written/ Viva voce		General Surgery	
FM3.6	Mechanical injuries and wounds: Describe healing of injury and fracture of bones with its medico-legal importance	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
FM3.8	Mechanical injuries and wounds: Describe and discuss different types of weapons including dangerous weapons and their examination.	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery, Orthopaedi cs	
FM3.9	Firearm injuries: Describe different types of firearms including structure and components, along with description of ammunition propellant charge and mechanism of fire-arms, different types of cartridges and bullets and various terminology in relation of firearm – caliber, range, choking.	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery, Orthopaedi cs	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM3.10	Firearm injuries: Describe and discuss wound ballistics- different types of firearm injuries, blast injuries and their interpretation, preservation and dispatch of trace evidences in cases of firearm and blast injuries, various tests related to confirmation of use of firearms	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic, DOAP session	Written/ Viva voce/ OSCE		General Surgery, Orthopaedi cs	
FM3.11	Regional Injuries: Describe and discuss regional injuries to head (Scalp wounds, fracture skull, intracranial haemorrhages, coup and contrecoup injuries), neck, chest, abdomen, limbs, genital organs, spinal cord and skeleton	K	K/KH	Y	Lecture, Small group discussion, Bedside clinic or autopsy, DOAP session	Written/ Viva voce/ OSCE/ OSPE		General Surgery, Orthopaedi cs	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM3.12	Regional Injuries: Describe and discuss injuries related to fall from height and vehicular injuries – Primary and Secondary impact, Secondary injuries, crush syndrome, railway spine.	K	K/KH	Y	Lecture, Small group discussion, Bedside clinic or autopsy, DOAP session	Written/ Viva voce/ OSCE/ OSPE		General Surgery, Orthopaedi cs	
DERMATOLOGY, VENEREOLOGY AND LEPROSY									
DR15.3	Enumerate the indications and describe the pharmacology, indications and adverse reactions of topical and systemic drugs used in treatment of pyoderma	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		General Surgery	Microbiolo gy, Pharmacol ogy
DR15.4	Enumerate the indications for surgical referral	S	KH	Y	DOAP session	Written/ Viva voce		General Surgery	
ANESTHESIOLOGY									
AS3.1	Describe the principles of preoperative evaluation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Surgery, General Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS3.2	Elicit, present and document an appropriate history including medication history in a patient undergoing Surgery as it pertains to a preoperative anaesthetic evaluation	S	SH	Y	DOAP session, Bedside clinic	Skill station			General Surgery, General Medicine
AS3.3	Demonstrate and document an appropriate clinical examination in a patient undergoing General Surgery	S	SH	Y	DOAP session, Bedside clinic	Skill station			General Surgery, General Medicine
AS3.4	Choose and interpret appropriate testing for patients undergoing Surgery	S	SH	Y	DOAP session, Bedside clinic	Skill station			General Surgery, General Medicine
AS3.5	Determine the readiness for General Surgery in a patient based on the preoperative evaluation	S	SH	Y	DOAP session, Bedside clinic	Skill station			General Surgery, General Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS5.6	Observe and describe the principles and steps/ techniques involved in common blocks used in Surgery (including brachial plexus blocks)	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			General Surgery
AS6.3	Describe the common complications encountered by patients in the recovery room, their recognition and principles of management	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			General Surgery
AS9.3	Describe the principles of fluid therapy in the preoperative period	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS9.4	Enumerate blood products and describe the use of blood products in the preoperative period	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Pathology	General Surgery
AS10.3	Describe the role of communication in patient safety	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		AETCOM	General Surgery
GENERAL MEDICINE									
IM5.8	Describe and discuss the pathophysiology, clinical evolution and complications of cholelithiasis and cholecystitis	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
IM5.13	Enumerate the indications for ultrasound and other imaging studies including MRCP and ERCP and describe the findings in liver disease	K	K	Y	Bed side clinic, Small group discussion	Written/ Viva voce		Radiodiagn osis	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM5.16	Describe and discuss the management of hepatitis, cirrhosis, portal hypertension, ascites, spontaneous, bacterial peritonitis and hepatic encephalopathy	K	KH	Y	Written, Small group discussion	Skill assessment/ Written/ Viva voce		Pharmacology	General Surgery
IM5.18	Enumerate the indications for hepatic transplantation	K	K	Y	Written, Small group discussion	Written/ Viva voce			General Surgery
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	S	SH	Y	Bed side clinic, DOAP session	Skill assessment			General Surgery
IM12.7	Demonstrate the correct technique to palpate the thyroid	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM12.8	Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis	K	KH	Y	Bedside clinic, small group discussion	Short case			General Surgery
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	S	SH	Y	Bed side clinic, DOAP session	Skill assessment			General Surgery
IM12.10	Identify atrial fibrillation, pericardial effusion and bradycardia on ECG	S	SH	Y	Bedside clinic, lab	Skill assessment			General Surgery
IM12.11	Interpret thyroid function tests in hypo- and hyperthyroidism	S	SH	Y	Bedside clinic, lab	Skill assessment			General Surgery
IM12.13	Describe the pharmacology, indications, adverse reaction, interactions of thyroxine and antithyroid drugs	K	KH	Y	Lecture, Small group discussion	Viva voce/ Short note		Pharmacology	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM12.15	Describe and discuss the indications of thionamide therapy, radio iodine therapy and Surgery in the management of thyrotoxicosis	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce, Skill assessment t		Pharmacology	General Surgery
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	S	K	Y	Bedside clinic	Skill assessment t/ Short case			General Surgery
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	S	SH	Y	Bedside clinic	Skill assessment t/ Short case			General Surgery
IM13.9	Demonstrate in a mannequin the correct technique for performing breast exam, rectal examination and cervical examination and pap smear	S	K	Y	Bedside clinic	Skill assessment t/ Short case		Human Anatomy	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM13.10	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	S	K	Y	Bedside clinic	Skill assessment/ Short case			General Surgery
IM13.13	Describe and assess pain and suffering objectively in a patient with cancer	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Pharmacology	General Surgery
IM13.14	Describe the indications for General Surgery, radiation and chemotherapy for common malignancies	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Pharmacology	General Surgery
IM14.14	Describe and enumerate the indications and side effects of bariatric surgery	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			General Surgery
IM15.1	Enumerate, describe and discuss the aetiology of upper and lower GI bleeding	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM15.2	Enumerate describe and discuss the evaluation and steps involved in stabilizing a patient who presents with acute volume loss and GI bleed	S	SH	Y	DOAP session, Small group discussion, Lecture	Written/ Viva voce/ Skill assessment		Pathology	General Surgery
IM15.3	Describe and discuss the physiologic effects of acute blood and volume loss	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology, Physiology	General Surgery
IM15.4	Elicit document and present an appropriate history that identifies the route of bleeding, quantity, grade, volume loss, duration, etiology, comorbid illnesses and risk factors	S	SH	Y	Bedside clinic	Skill assessment			General Surgery
IM15.5	Perform, demonstrate and document a physical examination based on the history that includes general examination, volume assessment and appropriate abdominal examination	S	SH	Y	Bedside clinic, Skills lab	Skill assessment			General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM15.6	Distinguish between upper and lower gastrointestinal bleeding based on the clinical features	S	KH	Y	Lecture, Small group discussion	Short note/ Viva voce			General Surgery
IM15.7	Demonstrate the correct technique to perform an anal and rectal examination in a mannequin or equivalent	S	SH	Y	DOAP session	Skill assessment			General Surgery
IM15.8	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	S	SH	Y	Bedside clinic, Skills lab	Skill assessment/ Short note/ Viva voce			General Surgery
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.	S	SH	Y	Bedside clinic, DOAP session, Small group discussion	Skill assessment/ Short note/ Viva voce		Pathology	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM15.10	Enumerate the indications for endoscopy, colonoscopy and other imaging procedures in the investigation of Upper GI bleeding	K	KH	Y	Lectures, Small group discussion	Written/ Viva voce			General Surgery
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	S	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	General Surgery
IM15.12	Enumerate the indications for whole blood, component and platelet transfusion and describe the clinical features and management of a mismatched transfusion	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	General Surgery
IM15.13	Observe cross matching and blood / blood component transfusion	S	SH	Y	Bedside clinic	Short note/ Viva voce/ Skill assessment		Pathology	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM15.14	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of pressors used in the treatment of Upper GI bleed	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pharmacology	General Surgery
IM15.15	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of acid peptic disease including Helicobacter pylori	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pharmacology, Microbiology	General Surgery
IM15.16	Enumerate the indications for endoscopic interventions and Surgery	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			General Surgery
IM15.17	Determine appropriate level of specialist consultation	S	K	Y	Small group discussion				General Surgery
IM15.18	Counsel the family and patient in an empathetic non-judgmental manner on the diagnosis and therapeutic options	S	SH	Y	DOAP session	Skill assessment			General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM16.12	Enumerate and discuss the indications for further investigations including antibodies, colonoscopy, diagnostic imaging and biopsy in the diagnosis of chronic diarrhea	K	KH	Y	Lectures, Small group discussion	Written/ Viva voce		Pathology	General Surgery
IM16.15	Distinguish, based on the clinical presentation, Crohn's disease from ulcerative colitis	S	SH	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	General Surgery
IM16.17	Describe and enumerate the indications for Surgery in inflammatory bowel disease	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			General Surgery
IM18.15	Enumerate the indications for Surgery in a hemorrhagic stroke	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			General Surgery
IM19.9	Enumerate the indications for use of Surgery and botulinum toxin in the treatment of movement disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacol ogy	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM22.2	Describe the aetiology, clinical manifestations, diagnosis and clinical approach to primary hyperparathyroidism	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	General Surgery
IM24.11	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Anesthesio logy, General Surgery
OBSTETRICS AND GYNAECOLOGY									
OG26.2	Describe the causes, prevention, clinical features, principles of management of genital injuries and fistulae	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			General Surgery
OG33.2	Describe the principles of management including Surgery and radiotherapy of benign, pre-malignant (CIN) and malignant Lesions of the Cervix	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PEDIATRICS									
PE21.8	Elicit, document and present a history pertaining to diseases of the Genitourinary tract	S	SH	Y	Bedside clinics, Skills lab	Skill Assessment			General Surgery
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	S	SH	Y	Bed side clinics, Skills lab	Log book assessment			General Surgery
ORTHOPEDICS									
OR1.1	Describe and discuss the principles of pre-hospital care and casualty management of a trauma victim including principles of triage	K/S/A/C	K/KH	Y	Lecture with video, Small group discussion	Written/ Viva voce/ OSCE/ Simulation			General Surgery - Anaesthesiology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OR1.2	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of shock	K/S	K/KH	Y	Lecture	Written/ Viva voce/ OSCE/ Simulation			General Surgery
OR1.3	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of soft tissue injuries	K	KH/ SH	Y	Lecture, Small group discussion	Written/ OSCE			General Surgery
OR1.4	Describe and discuss the principles of management of soft tissue injuries	K	K/KH	Y	Lecture, Small group discussion	Written Assesment / Viva voce			General Surgery
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 infection f) Skeletal Tuberculosis	K/S	K/KH/ SH	Y	Lecture, Small group discussion, Video assisted lecture	Written/ Viva voce/ OSCE		Pathology, Microbiolog y	General surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OR3.3	Participate as a member in team for procedures like drainage of abscess, sequestrectomy / saucerisation and arthrotomy	K/S/A/C	SH	Y	DOAP session, Video demonstration	Viva voce/ OSCE/ Skills assessment			General Surgery
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	K/KH	Y	Lecture, Small group discussion, Case discussion	Written/ Viva voce/ OSCE		Pathology	General surgery
OR10.1	Describe and discuss the aetiopathogenesis, clinical features, Investigations and principles of management of benign and malignant bone tumours and pathological fractures	K	K/KH	Y	Lecture, Small group discussion, Video assisted interactive lecture	Written/ Viva voce OSCE		Pathology	General surgery, Radiotherapy

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	K	K/H	Y	Lecture Small Group discussion, Case discussion	Written/ Viva voce/ OSCE		Human Anatomy	General Medicine, General surgery
PHYSICAL MEDICINE AND REHABILITATION									
PM5.1	Enumerate the indications and describe the principles of amputation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedic s, General Surgery
PM7.8	Enumerate the causes of, describe, classify Pressure sores, prevention, and treatment.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Surgery
PM7.9	Enumerate the indications of debridement, and Split thickness skin grafting.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PM8.1	Describe the clinical features, evaluation, diagnosis and management of disability following traumatic brain injury	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine, Orthopedic s, General Surgery
RADIOTHERAPY									
RT1.1	Describe and discuss definition of radiation, mechanism of action of radiation, types of radiation	K	KH	Y	Lecture	Written/ Viva voce			General Surgery Anaesthesi ology
RT1.3	Enumerate, describe and discuss and classify staging of cancer (AJCC, FIGO etc.)	K	KH	Y	Lecture	Written/ Viva voce		Pathology	General Surgery, General Medicine
RT4.5	Describe and discuss role of radiation in management of common malignancies in India (region specific)	K	KH	Y	Lecture, Bed side clinic	Written/ Viva voce		Pathology	General Surgery, Obstetrics & Gynaecolo gy

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
RT4.6	Describe and discuss radiotherapy for benign disease	K	KH	Y	Lecture	Written/ Viva voce		Pathology	General Surgery, Obstetrics & Gynaecolo gy
RT4.7	Counsel patients regarding acute and late effects of radiation and supportive care	K/A/S	KH	Y	Bedside clinic, Group discussion	Written/ Viva voce		Pathology	General Surgery, Obstetrics & Gynaecolo gy
RT4.8	Describe oncological emergencies and palliative care	K/A/S	K/KH	Y	Lecture, Group discussion	Written/ Viva voce			General Surgery, Obstetrics & Gynaecolo gy

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
RT5.1	Describe and discuss cancer prevention, screening, vaccination, cancer registry	K	K	Y	Group discussion	Written/ Viva voce		Pathology	General Surgery, Obstetrics & Gynaecology

Modifications are made as per the National Medical Commission (Under Graduate Medical Education Board, 2023) Notification No. U. 14021/8/2023-UGMEB dated 1st August 2023

1. Duration of Clinical Posting

Sr. No.	Year	Post revision
1	Second Professional	7 weeks
2	Third Professional MBBS Part I	4 weeks
3	Third Professional MBBS Part II	10 weeks

2. Theory

2A. Teaching hours

Year	Content	Post revision
Second Professional	Lecture	20
	SGT/Tutorial Hours	-
	SDL	-
	Total Hours	20
Third Professional MBBS Part I	Lecture	30
	SGT/Tutorial Hours	50
	SDL	10
	Total Hours	90
Third Professional MBBS Part II	Lecture	80
	SGT/Tutorial Hours	140
	SDL	40
	Total Hours	260

UNIVERSITY THEORY EXAMINATION PATTERN

Paper I and II		Section A and B	Marks – 100	Time : 3 Hrs.
Type of Question	Marks per question	No. of questions	Total marks	
One sentence answer	1	5 out of 6	5	
LAQ – PB (Compulsory)	10	1	10	
LAQ (structured)	10	1 out of 2	10	
Short notes	5	5 out of 6	25	
	Total	12	50	

Section A = 50 Marks, Section B = 50 Marks, **Total Marks = 100** for each paper

UNIVERSITY PRACTICAL EXAMINATION PATTERN

Subjects	Practical	Viva	Total
General Surgery	70	30	100

Passing criteria for the University Final Examination

Either Theory minimum 40% and Practical Minimum 60% = Aggregate 50%

Or Theory minimum 60% and Practical Minimum 40% = Aggregate 50%

IIIMBBS PAPER WISE DISTRIBUTION OF COMPETENCIES

III MBBS (PART II) - PAPER I- GENERAL SURGERY TOPICS

SECTION - A

SN.	Topic	Competency Number	Number of Competencies
1	General Surgery	SU-1	3
		SU-2	2
		SU-3	3
		SU-4	4
		SU-5	4
		SU-6	2
		SU-7	2
		SU-12	3
		SU-13	4
2	Endocrine Surgery	SU-22	6
		SU-23	3
3	Breast	SU-25	4
4	Head, Face, Neck	SU-21	2
5	Traumatology	SU-17	10
6	Principles of Oncology		
7	Principles of transplantation	SU-13	4
8	Skin & Subcutaneous Tissues	SU-18	3
		SU-19	2
		SU-20	2

SECTION – B - ORTHOPAEDICS

IIIMBBS PAPER WISE DISTRIBUTION OF COMPETENCIES
III MBBS (PART II) - PAPER II- GENERAL SURGERY TOPICS

SECTION - A

SN.	Topic	Competency Number	Number of Competencies
1	Gastro Intestinal tract (GIT)	SU-24 SU-28	3 18
2	Hepatobiliary system		
3	Genito urinary tract (GUT)	SU-29 SU-30	11 6
4	Allied		
	Pediatric surgery		
	CVTS	SU-26 SU-27	4 8
	Plastic surgery	SU-19	2
	Dentistry		
	Neuro Surgery		
	Radiology		
	Anesthesiology & critical care	SU-09 SU-10 SU-11	3 4 6
5	Spleen		

OBSTETRICS AND GYNAECOLOGY

OBSTETRICS AND GYNAECOLOGY

a. Competencies:

The student must demonstrate ability to:

- Provide peri-conceptual counselling 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 contraception
- 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 gynaecology 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, labour, 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 gynaecological diseases and describe principles of their management. State the indications, techniques and complications of surgeries like Caesarian 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 encirclage.

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. gynaecological problems including early detection of genital malignancies.
- Make a vaginal cytological smear, perform a post coital test and wet vaginal smear examination for Trichomonas vaginalis, Moniliasis and gram stain for gonorrhoea, catheterisation 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.

OBSTETRICS AND GYNECOLOGY (CODE: OG)

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OBSTETRICS AND GYNAECOLOGY									
Topic: Demographic and Vital Statistics Number of competencies: (03) Number of procedures that require certification : (NIL)									
OG1.1	Define and discuss birth rate, maternal mortality and morbidity	K	KH	Y	Lecture, Small group discussion	Short notes		Community Medicine	
OG1.2	Define and discuss perinatal mortality and morbidity including perinatal and neonatal mortality and morbidity audit	K	KH	Y	Lecture, Small group discussion	Short notes		Community Medicine	Pediatrics
OG1.3	Define and discuss still birth and abortion	K	KH	Y	Lecture, Small group discussion	Short notes		Forensic Medicine & Toxicology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Anatomy of the female reproductive tract (Basic anatomy and embryology) Number of competencies: (01) Number of procedures that require certification : (NIL)									
OG2.1	Describe and discuss the development and anatomy of the female reproductive tract, relationship to other pelvic organs, applied anatomy as related to Obstetrics and Gynaecology.	K	KH	Y	Lecture, Small group discussion	Theory/ Skill station		Human Anatomy	
Topic: Physiology of conception Number of competencies: (01) Number of procedures that require certification : (NIL)									
OG3.1	Describe the physiology of ovulation, menstruation, fertilization, implantation and gametogenesis.	K	K	Y	Lecture, seminars	Theory		Physiology	
Topic: Development of the fetus and the placenta Number of competencies: (01) Number of procedures that require certification : (NIL)									
OG4.1	Describe and discuss the basic embryology of fetus, factors influencing fetal growth and development, anatomy and physiology of placenta, and teratogenesis	K	K	Y	Lecture, Small group discussion	Theory		Human Anatomy	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Preconception counselling Number of competencies:(02) Number of procedures that require certification : (NIL)									
OG5.1	Describe, discuss and identify pre-existing medical disorders and discuss their management; discuss evidence-based intrapartum care	K/S	SH	Y	Lecture, Bedside clinics	Theory/ clinical assessment			
OG5.2	Determine maternal high risk factors and verify immunization status	K/S	SH	Y	Lecture, Bedside clinics	Theory/ clinical assessment			
Topic: Diagnosis of pregnancy Number of competencies:(01) Number of procedures that require certification : (NIL)									
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.	S	SH	Y	Lecture, Small group discussion, Bedside clinics	Theory/ Clinical assessment/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Maternal Changes in pregnancy Number of competencies: (01) Number of procedures that require certification : (NIL)									
OG7.1	Describe and discuss the changes in the genital tract, cardiovascular system, respiratory, haematology, renal and gastrointestinal system in pregnancy	K	KH	Y	Lecture, seminars	Theory		Physiology	
Topic: Antenatal Care Number of competencies: (08) Number of procedures that require certification : (NIL)									
OG8.1	Enumerate, describe and discuss the objectives of antenatal care, assessment of period of gestation; screening for high-risk factors.	K	KH	Y	Small group discussion, Bedside clinics, Lecture	Written/ Viva voce/ Skill assessment			Community Medicine
OG8.2	Elicit document and present an obstetric history including menstrual history, last menstrual period, previous obstetric history, comorbid conditions, past medical history and surgical history	K/S	SH	Y	Small group discussion, Bedside clinics, Lecture	Written/ Viva voce/ Skill assessment			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG8.3	Describe, demonstrate, document and perform an obstetrical examination including a general and abdominal examination and clinical monitoring of maternal and fetal well-being;	K/S	SH	Y	Bed side clinic, DOAP session	Skill assessment			
OG8.4	Describe and demonstrate clinical monitoring of maternal and fetal well-being	K/S	SH	Y	Bedside clinic, DOAP session, Small group discussion	Skill assessment/ Written/ Viva voce			
OG8.5	Describe and demonstrate pelvic assessment in a model	K/S	SH	Y	DOAP session	Skill assessment			
OG8.6	Assess and counsel a patient in a simulated environment regarding appropriate nutrition in pregnancy	K/S	SH	Y	DOAP session, Bedside clinic	Skill assessment			
OG8.7	Enumerate the indications for and types of vaccination in pregnancy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OG8.8	Enumerate the indications and describe the investigations including the use of ultrasound in the initial assessment and monitoring in pregnancy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Complications in early pregnancy Number of competencies: (05) Number of procedures that require certification: (NIL)									
OG9.1	Classify, define and discuss the aetiology and management of abortions including threatened, incomplete, inevitable, missed and septic	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OG9.2	Describe the steps and observe/assist in the performance of an MTP evacuation	S	SH	Y	DOAP session, Bedside clinic	Viva voce		Forensic Medicine	
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OG9.4	Discuss the clinical features, laboratory investigations, ultrasonography, differential diagnosis, principles of management and follow up of gestational trophoblastic neoplasms	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Radiodiagnosis
OG9.5	Describe the etiopathology, impact on maternal and fetal health and principles of management of hyperemesis gravidarum	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Antepartum haemorrhage Number of competencies: (02) Number of competencies that require certification: (NIL)									
OG10.1	Define, classify and describe the aetiology, pathogenesis, clinical features, ultrasonography, differential diagnosis and management of antepartum haemorrhage in pregnancy	K	KH	Y	Lecture, Small group discussion, Bedside clinic				

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OG10.2	Enumerate the indications and describe the appropriate use of blood and blood products, their complications and management.	K	KH	Y	Lecture, Small group discussion			Pathology	
Topic: Multiple pregnancies Number of competencies: (01) Number of procedures that require certification : (NIL)									
OG11.1	Describe the etiopathology, clinical features; diagnosis and investigations, complications, principles of management of multiple pregnancies	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Theory/ OSCE/ Clinical assessment/ Viva voce			
Topic: Medical Disorders in pregnancy Number of competencies: (08) Number of procedures that require certification : (NIL)									
OG12.1	Define, classify and describe the etiology and pathophysiology, early detection, investigations; principles of management of hypertensive disorders of pregnancy and eclampsia, complications of eclampsia.	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			General Medicine

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	Suggested Assesse nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG12.2	Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of anemia in pregnancy	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			General Medicine
OG12.3	Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of diabetes in pregnancy	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG12.4	Define, classify and describe the etiology, pathophysiology, diagnosis, investigations, criteria, adverse effects on the mother and foetus and the management during pregnancy and labor, and complications of heart diseases in pregnancy	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			General Medicine
OG12.5	Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management of urinary tract infections in pregnancy	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			General Medicine
OG12.6	Describe the clinical features, detection, effect of pregnancy on the disease and impact of the disease on pregnancy complications and management of liver disease in pregnancy	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			General Medicine

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG12.7	Describe and discuss screening, risk factors, management of mother and newborn with HIV	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			General Medicine
OG12.8	Describe the mechanism, prophylaxis, fetal complications, diagnosis and management of isoimmunization in pregnancy	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			
Topic: Labour Number of competencies: (05) Number of procedures that require certification : (01)									
OG13.1	Enumerate and discuss the physiology of normal labor, mechanism of labor in occipito-anterior presentation; monitoring of labor including partogram; conduct of labor, pain relief; principles of induction and acceleration of labor; management of third stage of labor.	K/S	KH	Y	Lecture, Small group discussion (with models/ videos/ AV aids, etc.)	Theory/ Clinical assessment/ Viva voce			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG13.2	Define, describe the causes, pathophysiology, diagnosis, investigations and management of preterm labor, PROM and postdated pregnancy	K/S	KH	Y	Lecture, Small group discussion, Bedside clinics	Theory/ OSCE/ Clinical assessment/ Viva voce			
OG13.3	Observe/ assist in the performance of an artificial rupture of membranes	S	SH	N	DOAP session, Bedside clinic	Skill assessment			
OG13.4	Demonstrate the stages of normal labor in a simulated environment / mannequin and counsel on methods of safe abortion.	S	SH	Y	DOAP session	Skill assessment			
OG13.5	Observe and assist the conduct of a normal vaginal delivery	S	P	Y	DOAP session	Log book	10		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Abnormal Lie and Presentation; Maternal Pelvis Number of competencies: (04) Number of procedures that need certification : (NIL)									
OG14.1	Enumerate and discuss the diameters of maternal pelvis and types	K	KH	Y	Lecture, Small group discussion DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment		Human Anatomy	
OG14.2	Discuss the mechanism of normal labor, Define and describe obstructed labor, its clinical features; prevention; and management	K	KH	Y	Lecture, Small group discussion DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			
OG14.3	Describe and discuss rupture uterus, causes, diagnosis and management.	K	KH	Y	Lecture, Small group discussion DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG14.4	Describe and discuss the classification; diagnosis; management of abnormal labor	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ skill assessment			
Topic: Operative obstetrics Number of competencies: (02) Number of procedures that require certification : (NIL)									
OG15.1	Enumerate and describe the indications and steps of common obstetric procedures, technique and complications: Episiotomy, vacuum extraction; low forceps; Caesarean section, assisted breech delivery; external cephalic version; cervical cerclage	S	KH	Y	Lecture, Small group discussion, seminars	Written/ skill assessment			
OG15.2	Observe and assist in the performance of an episiotomy and demonstrate the correct suturing technique of an episiotomy in a simulated environment. Observe/ Assist in operative obstetrics cases – including - CS, Forceps, vacuum extraction, and breech delivery	S	SH	Y	DOAP session, Bedside clinic	Skill assessment			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Complications of the third stage Number of competencies: (03) Number of procedures that require certification : (NIL)									
OG16.1	Enumerate and discuss causes, prevention, diagnosis, management, appropriate use of blood and blood products in postpartum haemorrhage	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ skill assessment			
OG16.2	Describe and discuss uterine inversion – causes, prevention, diagnosis and management.	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce			
OG16.3	Describe and discuss causes, clinical features, diagnosis, investigations; monitoring of fetal well-being, including ultrasound and fetal Doppler; principles of management; prevention and counselling in intrauterine growth retardation	K/S	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ skill assessment/ Viva voce			
Topic: Lactation Number of competencies: (03) Number of procedures that require certification : (NIL)									
OG17.1	Describe and discuss the physiology of lactation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG17.2	Counsel in a simulated environment, care of the breast, importance and the technique of breast feeding	S/A/C	SH	Y	DOAP session	Skill assessme nt			
OG17.3	Describe and discuss the clinical features, diagnosis and management of mastitis and breast abscess	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Care of the new born Number of competencies: (04) Number of procedures that require certification : (NIL)									
OG18.1	Describe and discuss the assessment of maturity of the newborn, diagnosis of birth asphyxia, principles of resuscitation, common problems.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics
OG18.2	Demonstrate the steps of neonatal resuscitation in a simulated environment	S	SH	Y	DOAP session	Skill assessme nt			Pediatrics
OG18.3	Describe and discuss the diagnosis of birth asphyxia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OG18.4	Describe the principles of resuscitation of the newborn and enumerate the common problems encountered	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pediatrics
Topic: Normal and abnormal puerperium. Number of competencies: (04) Number of procedures that require certification : (NIL)									
OG19.1	Describe and discuss the physiology of puerperium, its complications, diagnosis and management; counselling for contraception, puerperal sterilization	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce			
OG19.2	Counsel in a simulated environment, contraception and puerperal sterilisation	S/A/C	SH	Y	DOAP session	Skill assessment		Community Medicine	
OG19.3	Observe/ assist in the performance of tubal ligation	S	KH	Y	DOAP session, intraoperative	Skill assessment			
OG19.4	Enumerate the indications for, describe the steps in and insert and remove an intrauterine device in a simulated environment	S	SH	Y	DOAP session	Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Medical termination of pregnancy Number of competencies: (03) Number of procedures that require certification : (NIL)									
OG20.1	Enumerate the indications and describe and discuss the legal aspects, indications, methods for first and second trimester MTP; complications and management of complications of Medical Termination of Pregnancy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Forensic Medicine	
OG20.2	In a simulated environment administer informed consent to a person wishing to undergo Medical Termination of Pregnancy	S/A/C	SH	Y	DOAP session	Skill assessment		Forensic Medicine	
OG20.3	Discuss Pre-conception and Pre Natal Diagnostic Techniques (PC& PNDT) Act 1994 & its amendments	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Forensic Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Contraception Number of competencies: (02) Number of procedures that require certification : (NIL)									
OG21.1	Describe and discuss the temporary and permanent methods of contraception, indications, technique and complications; selection of patients, side effects and failure rate including Ocs, male contraception, emergency contraception and IUCD	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment		Community medicine	
OG21.2	Describe & discuss PPIUCD programme	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Vaginal discharge Number of competencies: (02) Number of procedures that require certification : (NIL)									
OG22.1	Describe the clinical characteristics of physiological vaginal discharge.	K	KH	Y	Lecture	Theory			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG22.2	Describe and discuss the etiology (with special emphasis on Candida, T. vaginalis, bacterial vaginosis), characteristics, clinical diagnosis, investigations, genital hygiene, management of common causes and the syndromic management	K	KH	Y	Lecture, Bedside clinics	Written/ Viva voce/ Skill assessment			
Topic: Normal and abnormal puberty Number of competencies: (03) Number of procedures that require certification : (NIL)									
OG23.1	Describe and discuss the physiology of puberty, features of abnormal puberty, common problems and their management	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce			
OG23.2	Enumerate the causes of delayed puberty. Describe the investigation and management of common causes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OG23.3	Enumerate the causes of precocious puberty	K	K	N	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Abnormal uterine bleeding Number of competencies: (01) Number of procedures that require certification: (NIL)									
OG24.1	Define, classify and discuss abnormal uterine bleeding, its aetiology, clinical features, investigations, diagnosis and management	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Amenorrhea Number of competencies: (01) Number of procedures that require certification : (NIL)									
OG25.1	Describe and discuss the causes of primary and secondary amenorrhea, its investigation and the principles of management.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Genital injuries and fistulae Number of competencies: (02) Number of procedures that require certification : (NIL)									
OG26.1	Describe and discuss the etiopathogenesis, clinical features; investigation and implications on health and fertility and management of endometriosis and adenomyosis	K/S	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OG26.2	Describe the causes, prevention, clinical features, principles of management of genital injuries and fistulae	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			General Surgery
Topic: Genital infections Number of competencies: (04) Number of procedures that require certification : (NIL)									
OG27.1	Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of sexually transmitted infections	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OG27.2	Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of genital tuberculosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OG27.3	Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of HIV	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OG27.4	Describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations, management and long term implications of Pelvic Inflammatory Disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Infertility Number of competencies:(04) Number of procedures that require certification : (NIL)									
OG28.1	Describe and discuss the common causes, pathogenesis, clinical features, differential diagnosis; investigations; principles of management of infertility – methods of tubal patency, ovulation induction, assisted reproductive techniques	K	KH	Y	Lecture, seminars, Bedside clinics	Written/ Viva voce			
OG28.2	Enumerate the assessment and restoration of tubal latency	K	K	N	Lecture, seminars, Bedside clinics	Written/ Viva voce			
OG28.3	Describe the principles of ovulation induction	K	KH	Y	Lecture, seminars, Bedside clinics	Written/ Viva voce			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG28.4	Enumerate the various Assisted Reproduction Techniques	K	K	N	Lecture, seminars, Bedside clinics	Written/ Viva voce			
Topic: Uterine fibroids Number of competencies: (01) Number of procedures that require certification : (NIL)									
OG29.1	Describe and discuss the etiology; pathology; clinical features; differential diagnosis; investigations; principles of management, complications of fibroid uterus	K/A/C	KH	Y	Lecture, Bedside clinics	Theory/ OSCE/ Clinical Assessm ent/ Viva voce			
Topic: PCOS and hirsutism Number of competencies: (02) Number of procedures that require certification : (NIL)									
OG30.1	Describe and discuss the etiopathogenesis; clinical features; differential diagnosis; investigations; management, complications of PCOS	K/A/C	KH	Y	Lecture	Theory/ OSCE/ Clinical Assessm ent/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OG30.2	Enumerate the causes and describe the investigations and management of hyperandrogenism	K	KH	N		Theory/ OSCE/ Clinical Assessment/ Viva voce			
Topic: Uterine prolapse Number of competencies: (01) Number of procedures that require certification : (NIL)									
OG31.1	Describe and discuss the etiology, classification, clinical features, diagnosis, investigations, principles of management and preventive aspects of prolapse of uterus	K/S	KH	Y	Lecture, small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			
Topic: Menopause Number of competencies: (02) Number of procedures that require certification : (NIL)									
OG32.1	Describe and discuss the physiology of menopause, symptoms, prevention, management and the role of hormone replacement therapy.	K	KH	Y	Lecture, small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OG32.2	Enumerate the causes of postmenopausal bleeding and describe its management	K	KH	Y	Lecture, small group discussion Bedside clinics	Written/ Viva voce			
Topic: Benign, Pre-malignant (CIN) and Malignant Lesions of the Cervix Number of competencies : (04) Number of procedures that require certification : (NIL)									
OG33.1	Classify, describe and discuss the etiology, pathology, clinical features, differential diagnosis, investigations and staging of cervical cancer	K/S	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			
OG33.2	Describe the principles of management including surgery and radiotherapy of Benign, Pre-malignant (CIN) and Malignant Lesions of the Cervix	K	KH	Y	Lecture, Small group discussion, Bedside clinics	Written/ Viva voce/ Skill assessment			General Surgery
OG33.3	Describe and demonstrate the screening for cervical cancer in a simulated environment	K/S	SH	Y	DOAP session	Skill assessment		Community Medicine	

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG33.4	Enumerate the methods to prevent cancer of cervix including visual inspection with acetic acid (VIA), visual inspection of cervix with Lugol's iodine (VILI), pap smear and colposcopy	K	K	Y	Lecture, Small group discussion, Bedside clinics	Viva voce/ Written			
Topic: Benign and malignant diseases of the uterus and the ovaries Number of competencies : (04) Number of procedures that require certification : (NIL)									
OG34.1	Describe and discuss aetiology, pathology, staging clinical features, differential diagnosis, investigations, staging laparotomy and principles of management of endometrial cancer	K	KH	Y	Lecture, Bedside clinics	Viva voce/ Written/ skill assessment			
OG34.2	Describe and discuss the etiology, pathology, classification, staging of ovarian cancer, clinical features, differential diagnosis, investigations, principal of management including staging laparotomy	K/S	KH	Y	Lecture	Theory/ OSCE/ clinical assessment/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OG34.3	Describe and discuss the etiology, pathology, classification, staging, clinical features, differential diagnosis, investigations and management of gestational trophoblastic disease	K/S	KH	Y	Lecture	Theory/ OSCE/ clinical assessment/			
OG34.4	Operative Gynaecology : Understand and describe the technique and complications: Dilatation & Curettage (D&C); EA-ECC; cervical biopsy; abdominal hysterectomy; myomectomy; surgery for ovarian tumours; staging laparotomy; vaginal hysterectomy including pelvic floor repair; Fothergill's operation, Laparoscopy; hysteroscopy; management of postoperative complications	K/S	SH	Y	Videos, on manikins, observe procedures and surgeries in OR	Viva voce			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Obstetrics & Gynecological skills - I Number of competencies: (17) Number of procedures that require certification : (NIL)									
OG35.1	Obtain a logical sequence of history, and perform a humane and thorough clinical examination, excluding internal examinations (perrectal and per-vaginal)	K/S	SH	Y	Bedside clinics	Clinical assessment/ Viva voce			
OG35.2	Arrive at a logical provisional diagnosis after examination.	K/S	SH	Y	Bedside clinics	Clinical assessment/ Viva voce			
OG35.3	Recognize situations, which call for urgent or early treatment at secondary and tertiary centres and make a prompt referral of such patients after giving first aid or emergency treatment.	K/S	SH	Y	Bedside clinics	Clinical assessment/ Viva voce			
OG35.4	Demonstrate interpersonal and communication skills befitting a physician in order to discuss illness and its outcome with patient and family	A/C	SH	Y	Bedside clinics	Clinical assessment/ Viva voce			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG35.5	Determine gestational age, EDD and obstetric formula	K/S	SH	Y	Bedside clinics	Clinical assessment/ Viva voce			
OG35.6	Demonstrate ethical behavior in all aspects of medical practice.	A/C	SH	Y	Bedside clinics	Clinical assessment/ Viva voce			
OG35.7	Obtain informed consent for any examination / procedure	S	SH	Y	Bedside clinics	Clinical assessment/ Viva voce			
OG35.8	Write a complete case record with all necessary details	S	SH	Y	Bedside clinics	Clinical assessment/ Viva voce			
OG35.9	Write a proper discharge summary with all relevant information	S	SH	Y	Bedside clinics	Clinical assessment			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG35.10	Write a proper referral note to secondary or tertiary centres or to other physicians with all necessary details.	S	SH	Y	Bedside clinics	Clinical assessment/ Viva voce			
OG35.11	Demonstrate the correct use of appropriate universal precautions for self-protection against HIV and hepatitis and counsel patients	S	SH	Y	DOAP session	Skill assessment			
OG35.12	Obtain a PAP smear in a stimulated environment	S	SH	Y	DOAP session	Skill assessment			
OG35.13	Demonstrate the correct technique to perform artificial rupture of membranes in a simulated / supervised environment	S	SH	Y	DOAP session	Skill assessment			
OG35.14	Demonstrate the correct technique to perform and suture episiotomies in a simulated/ supervised environment	S	SH	Y	DOAP session	Skill assessment			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG35.15	Demonstrate the correct technique to insert and remove an IUD in a simulated/ supervised environment	S	SH	Y	DOAP session	Skill assessme nt			
OG35.16	Diagnose and provide emergency management of antepartum and postpartum hemorrhage in a simulated / guided environment	K/S	SH	Y	DOAP session	Skill assessme nt			
OG35.17	Demonstrate the correct technique of urinary catheterisation in a simulated/ supervised environment	S	SH	Y	DOAP session	Skill assessme nt			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Obstetrics & Gynecological skills - II Number of competencies: (03) Number of procedures that require certification: (NIL)									
OG36.1	Plan and institute a line of treatment, which is need based, cost effective and appropriate for common conditions taking into consideration (a) Patient (b) Disease (c) Socio-economic status (d) Institution/ Governmental guidelines.	K/S	SH	Y	Bedside clinics, Small group discussion	Clinical assessment/ Viva voce			
OG36.2	Organise antenatal, postnatal, well-baby and family welfare clinics	K/S	KH	Y	Bedside clinics	Clinical assessment/ Viva voce			
OG36.3	Demonstrate the correct technique of punch biopsy of uterus in a simulated/ supervised environment	S	SH	Y	Bedside clinics	Clinical assessment/ Viva voce			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Obstetrics & Gynecological skills - III Number of competencies: (07) Number of procedures that require certification : (NIL)									
OG37.1	Observe and assist in the performance of a Caesarean section	K/S/A/C	SH	Y	Bedside clinics, Small group discussion	Log book			
OG37.2	Observe and assist in the performance of Laparotomy	K/S/A/C	SH	Y	Bedside clinics, Small group discussion	Clinical assessme nt/ Viva voce			
OG37.3	Observe and assist in the performance of Hysterectomy – abdominal/vaginal	K/S/A/C	SH	Y	Bedside clinics, Small group discussion	Clinical assessme nt/ Viva voce			
OG37.4	Observe and assist in the performance of Dilatation & Curettage (D&C)	K/S/A/C	SH	Y	Bedside clinics, Small group discussion	Clinical assessme nt/ Viva voce			
OG37.5	Observe and assist in the performance of Endometrial aspiration - endocervical curettage (EA-ECC)	K/S/A/C	SH	Y	Bedside clinics, Small group discussion	Viva voce			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG37.6	Observe and assist in the performance of outlet forceps application of vacuum and breech delivery	K/S/A/C	SH	Y	Bedside clinics, Small group discussion	Log book			
OG37.7	Observe and assist in the performance of MTP in the first trimester and evacuation in incomplete abortion	K/S/A/C	SH	Y	Bedside clinics, Small group discussion	Clinical assessment/ Viva voce			
Topic: Should observe Number of competencies: (04) Number of procedures that require certification : (NIL)									
OG38.1	Laparoscopy	K/S/A/C	KH	Y	Bedside clinic, Small group discussion	Clinical assessment/ Viva voce			
OG38.2	Hysteroscopy	K/S/A/C	KH	Y	Bedside clinics, Small group discussion	Clinical assessment/ Viva voce			
OG38.3	Lap sterilization	K/S/A/C	KH	Y	Bedside clinics, Small group discussion	Clinical assessment/ Viva voce			

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
OG38.4	Assess the need for and issue proper medical certificates to patients for various purposes	K/S/A/C	KH	Y	Bedside clinics, Small group discussion	Clinical assessment/ Viva voce			
<p>Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation</p>									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
INTEGRATION									
HUMAN ANATOMY									
AN48.8	Mention the structures palpable during Vaginal & Rectal examination	K	KH	N	Lecture	Written		Obstetrics & Gynaecology, General Surgery	
AN49.1	Describe & demonstrate the Superficial & Deep perineal pouch (boundaries and contents)	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment		Obstetrics & Gynaecology	
AN49.2	Describe & identify Perineal body	K/S	SH	Y	Lecture, Small group discussion, DOAP session	Viva voce/ skill assessment		Obstetrics & Gynaecology	
AN49.5	Explain the anatomical basis of Perineal tear, Episiotomy, Perianal abscess and Anal fissure	K	KH	N	Lecture	Written		Obstetrics & Gynaecology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN52.8	Describe the development of male & female reproductive system	K	KH	Y	Lecture	Written/ Viva voce		Obstetrics & Gynaecolog y	
AN53.1	Identify & hold the bone in the anatomical position, Describe the salient features, articulations & demonstrate the attachments of muscle groups	K/S	SH	Y	Lecture, DOAP session	Viva voce/ skill assessmen t		General Surgery, Obstetrics & Gynaecolog y	
AN53.2	Demonstrate anatomical position of bony pelvis & show boundaries of pelvic inlet, pelvic cavity, pelvic outlet	K/S	SH	Y	Lecture, DOAP session	Viva voce/ skill assessmen t		Obstetrics & Gynaecolog y	
AN53.3	Define true pelvis and false pelvis and demonstrate sex determination in male & female bony pelvis	K/S	SH	Y	Lecture, DOAP session	Viva voce/ skill assessmen t		Obstetrics & Gynaecolog y	
AN64.3	Describe various types of open neural tube defects with its embryological basis	K	KH	N	Lecture	Written/ Viva voce		Obstetrics & Gynaecolog y, Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN75.5	Describe the principles of genetic counselling	K	KH	Y	Lecture	Written		Pediatrics, Obstetrics & Gynaecolog y	
AN77.1	Describe the uterine changes occurring during the menstrual cycle	K	KH	Y	Lecture	Written		Obstetrics & Gynaecolog y	
AN77.2	Describe the synchrony between the ovarian and menstrual cycles	K	KH	Y	Lecture	Written		Obstetrics & Gynaecolog y	
AN77.3	Describe spermatogenesis and oogenesis along with diagrams	K	KH	Y	Lecture	Written		Obstetrics & Gynaecolog y	
AN77.4	Describe stages and consequences of fertilisation	K	KH	Y	Lecture	Written		Obstetrics & Gynaecolog y	
AN77.5	Enumerate and describe the anatomical principles underlying contraception	K	KH	Y	Lecture	Written		Obstetrics & Gynaecolog y	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN77.6	Describe teratogenic influences; fertility and sterility, surrogate motherhood, social significance of "sex-ratio".	K	KH	N	Lecture	Written		Obstetrics & Gynaecology	
AN78.3	Describe the process of implantation & common abnormal sites of implantation	K	KH	Y	Lecture	Written		Obstetrics & Gynaecology	
AN78.5	Describe in brief abortion: decidual reaction, pregnancy test	K	KH	Y	Lecture	Written		Obstetrics & Gynaecology	
AN79.4	Describe the development of somites and intra-embryonic coelom	K	KH	Y	Lecture	Written		Obstetrics & Gynaecology	
AN79.5	Explain embryological basis of congenital malformations, nucleus pulposus, sacrococcygeal teratomas, neural tube defects	K	KH	N	Lecture	Written		Obstetrics & Gynaecology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN79.6	Describe the diagnosis of pregnancy in first trimester and role of teratogens, alpha-fetoprotein	K	KH	N	Lecture	Written		Obstetrics & Gynaecology	
AN80.3	Describe formation of placenta, its physiological functions, foetomaternal circulation & placental barrier	K	KH	Y	Lecture	Written		Obstetrics & Gynaecology	
AN80.4	Describe embryological basis of twinning in monozygotic & dizygotic twins	K	KH	Y	Lecture	Written		Obstetrics & Gynaecology	
AN80.5	Describe role of placental hormones in uterine growth & parturition	K	KH	Y	Lecture	Written		Obstetrics & Gynaecology	
AN80.6	Explain embryological basis of estimation of fetal age.	K	KH	N	Lecture	Written		Obstetrics & Gynaecology	
AN80.7	Describe various types of umbilical cord attachments	K	KH	N	Lecture	Written		Obstetrics & Gynaecology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN81.1	Describe various methods of prenatal diagnosis	K	KH	Y	Lecture	Written		Obstetrics & Gynaecology	
AN81.2	Describe indications, process and disadvantages of amniocentesis	K	KH	Y	Lecture	Written		Obstetrics & Gynaecology	
AN81.3	Describe indications, process and disadvantages of chorion villus biopsy	K	KH	Y	Lecture	Written		Obstetrics & Gynaecology	
PHYSIOLOGY									
PY9.6	Enumerate the contraceptive methods for male and female. Discuss their advantages & disadvantages	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology, Community Medicine	
PY9.8	Describe and discuss the physiology of pregnancy, parturition & lactation and outline the psychology and psychiatry-disorders associated with it.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PY9.10	Discuss the physiological basis of various pregnancy tests	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
PY9.11	Discuss the hormonal changes and their effects during perimenopause and menopause	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
PY9.12	Discuss the common causes of infertility in a couple and role of IVF in managing a case of infertility.	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
BIOCHEMISTRY									
BI10.1	Describe cancer initiation, promotion, oncogenes & oncogene activation.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology, General Surgery, Pathology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
BI10.2	Describe various biochemical tumor markers and the biochemical basis of cancer therapy.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology, General Surgery, Pathology	
BI10.3	Describe the cellular and humoral components of the immune system & describe the types and structure of antibody	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology, General Surgery, Pathology	
PATHOLOGY									
PA22.2	Enumerate the indications describe the principles enumerate and demonstrate the steps of compatibility testing	S	SH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PA30.1	Describe the epidemiology, pathogenesis, etiology, pathology, screening, diagnosis and progression of carcinoma of the cervix	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
PA30.2	Describe the pathogenesis, etiology, pathology, diagnosis and progression and spread of carcinoma of the endometrium	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
PA30.3	Describe the pathogenesis, etiology, pathology, diagnosis and progression and spread of carcinoma of the leiomyomas and leiomyosarcomas	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
PA30.4	Classify and describe the etiology, pathogenesis, pathology, morphology, clinical course, spread and complications of ovarian tumors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PA30.5	Describe the etiology, pathogenesis, pathology, morphology, clinical course, spread and complications of gestational trophoblastic neoplasms	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
PA30.6	Describe the etiology and morphologic features of cervicitis	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
PA30.7	Describe the etiology, hormonal dependence, features and morphology of endometriosis	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
PA30.8	Describe the etiology and morphologic features of adenomyosis	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
PA30.9	Describe the etiology, hormonal dependence and morphology of endometrial hyperplasia	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PHARMACOLOGY									
PH1.39	Describe mechanism of action, types, doses, side effects, indications and contraindications of the drugs used for contraception	K	KH	Y	Lecture	Written/ Viva voce		Obstetrics & Gynaecolog y	
PH1.40	Describe mechanism of action, types, doses, side effects, indications and contraindications of 1. Drugs used in the treatment of infertility, and 2. Drugs used in erectile dysfunction	K	KH	Y	Lecture	Written/ Viva voce		Obstetrics & Gynaecolog y	
PH1.41	Describe the mechanisms of action, types, doses, side effects, indications and contraindications of uterine relaxants and stimulants	K	KH	Y	Lecture	Written/ Viva voce		Obstetrics & Gynaecolog y	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
COMMUNITY MEDICINE									
CM9.2	Define, calculate and interpret demographic indices including birth rate, death rate, fertility rates	S	SH	Y	Lecture, Small group discussion, DOAP sessions	Skill assessment		Obstetrics & Gynaecology, Pediatrics	
CM9.5	Describe the methods of population control	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology	
CM10.1	Describe the current status of Reproductive, maternal, newborn and Child Health	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics	
CM10.2	Enumerate and describe the methods of screening high risk groups and common health problems	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics	
CM10.3	Describe local customs and practices during pregnancy, childbirth, lactation and child feeding practices	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce		Obstetrics & Gynaecology, Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
CM10.4	Describe the reproductive, maternal, newborn & child health (RMCH); child survival and safe motherhood interventions	K	KH	Y	Small group discussion, Lecture	Written / Viva voce		Obstetrics & Gynaecology, Pediatrics	
FORENSIC MEDICINE AND TOXICOLOGY									
FM3.13	Describe different types of sexual offences. Describe various sections of IPC regarding rape including definition of rape (Section 375 IPC), Punishment for Rape (Section 376 IPC) and recent amendments notified till date.	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
FM3.14	SEXUAL OFFENCES Describe and discuss the examination of the victim of an alleged case of rape, and the preparation of report, framing the opinion and preservation and despatch of trace evidences in such cases.	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic, DOAP session	Written/ Viva voce/ OSCE		Obstetrics & Gynaecology, Psychiatry	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM3.15	SEXUAL OFFENCES Describe and discuss examination of accused and victim of sodomy, preparation of report, framing of opinion, preservation and despatch of trace evidences in such cases	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic, DOAP session	Written/ Viva voce/ OSCE		Obstetrics & Gynaecology, Psychiatry	
FM3.16	SEXUAL OFFENCES Describe and discuss adultery and unnatural sexual offences - sodomy, incest, lesbianism, buccal coitus, bestiality, indecent assault and preparation of report, framing the opinion and preservation and despatch of trace evidences in such cases.	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
FM3.17	Describe and discuss the sexual perversions fetishism, transvestism, voyeurism, sadism, necrophagia, masochism, exhibitionism, frotteurism, Necrophilia.	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology, Psychiatry	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM3.18	Describe anatomy of male and female genitalia, hymen and its types. Discuss the medico-legal importance of hymen. Define virginity, defloration, legitimacy and its medicolegal importance.	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
FM3.19	Discuss the medicolegal aspects of pregnancy and delivery, signs of pregnancy, precipitate labour superfoetation, superfecundation and signs of recent and remote delivery in living and dead	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
FM3.20	Discuss disputed paternity and maternity	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
FM3.21	Discuss Pre-conception and Pre Natal Diagnostic Techniques (PCPNDT)- Prohibition of Sex Selection Act 2003 and Domestic Violence Act 2005	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology, AETCOM	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM3.22	Define and discuss impotence, sterility, frigidity, sexual dysfunction, premature ejaculation. Discuss the causes of impotence and sterility in male and female	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology, General Medicine	
FM3.23	Discuss Sterilization of male and female, artificial insemination, Test Tube Baby, surrogate mother, hormonal replacement therapy with respect to appropriate national and state laws	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology	
FM3.24	Discuss the relative importance of surgical methods of contraception (vasectomy and tubectomy) as methods of contraception in the national family Planning Programme	K	K/KH	N	Lecture, Small group discussion	Written		Obstetrics & Gynaecology	
FM3.25	Discuss the major results of the National Family Health Survey	K	K/KH	N	Lecture	Written		Obstetrics & Gynaecology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM3.26	Discuss the National Guidelines for accreditation, supervision & regulation of ART Clinics in India	K	K/KH	Y	Lecture, Small group discussion	Written		Obstetrics & Gynaecology	
FM3.27	Define, classify and discuss abortion, methods of procuring MTP and criminal abortion and complication of abortion: MTP Act 1971	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology, AETCOM	
FM3.28	Describe evidences of abortion - living and dead, duties of doctor in cases of abortion, investigations of death due to criminal abortion	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Obstetrics & Gynaecology, AETCOM	
DERMATOLOGY AND VENEREOLOGY									
DR10.11	Describe the etiology, diagnostic and clinical features and management of vaginal discharge	K	KH	Y	Lecture, Small group discussion	Written / Viva voce		Obstetrics & Gynaecology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
GENERAL MEDICINE									
IM26.43	Identify, discuss and defend medicolegal, sociocultural, economic and ethical issues as they pertain to in vitro fertilisation donor insemination and surrogate motherhood	K	KH	N	Small group discussio	Written/ Viva voce			Obstetrics & Gynaecology
RADIODIAGNOSIS									
RD1.13	Describe the components of the PC & PNDT Act and its medicolegal implications	K	KH	Y	Lecture, Small group discussion			Obstetrics & Gynaecology, Forensic Medicine	
PEDIATRICS									
PE7.1	Awareness on the cultural beliefs and practices of breast feeding	K	K	N	Lecture, Small group discussion	Viva voce			Obstetrics & Gynaecology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE7.7	Perform breast examination and identify common problems during lactation such as retracted nipples, cracked nipples, breast engorgement, breast abscess	S	SH	Y	Bed side clinics Skill Lab	Skill Assesse nt			Obstetrics & Gynaecolo gy
PE7.8	Educate mothers on ante natal breast care and prepare mothers for lactation	A/C	SH	Y	DOAP session	Document in Log Book			Obstetrics & Gynaecolo gy, AETCOM
PE7.9	Educate and counsel mothers for best practices in breast feeding	A/C	SH	Y	DOAP session	Document in Log Book			Obstetrics & Gynaecolo gy, AETCOM
PE18.1	List and explain the components, plans, outcomes of Reproductive Child Health (RCH) program and appraise the monitoring and evaluation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	Obstetrics & Gynaecolo gy

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE18.2	Explain preventive interventions for Child survival and safe motherhood	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Community Medicine	Obstetrics & Gynaecology
PE18.3	Conduct Antenatal examination of women independently and apply at-risk approach in antenatal care	S	SH	Y	Bed side clinics	Skill station		Community Medicine	Obstetrics & Gynaecology
PE18.4	Provide intra-natal care and conduct a normal Delivery in a simulated environment	S	SH	Y	DOAP session, Skills lab	Document in Log Book		Community Medicine	Obstetrics & Gynaecology
PE18.5	Provide intra-natal care and observe the conduct of a normal delivery	S	SH	Y	DOAP session	Document in Log Book			Obstetrics & Gynaecology
PE18.6	Perform Postnatal assessment of newborn and mother, provide advice on breast feeding, weaning and on family planning	S	SH	Y	Bed side clinics, Skill Lab	Skill Assessment		Community Medicine	Obstetrics & Gynaecology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE18.8	Observe the implementation of the program by visiting the Rural Health Centre	S	KH	Y	Bed side clinics, Skill Lab	Document in log book		Community Medicine	Obstetrics & Gynaecology
PE20.6	Explain the follow up care for neonates including Breast feeding, temperature maintenance, immunization, importance of growth monitoring and red flags	S	SH	Y	DOAP session	Log book entry			Obstetrics & Gynaecology
PE32.6	Discuss the genetic basis, risk factors, clinical features, complications, prenatal diagnosis, management and genetic counselling in Turner's Syndrome	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			General Medicine, Obstetrics & Gynaecology
PE32.8	Interpret normal Karyotype and recognize the Turner Karyotype	S	SH	N	Bed Side clinics, Skill lab	Log book			General Medicine, Obstetrics & Gynaecology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE32.9	Discuss the referral criteria and multidisciplinary approach to management of Turner Syndrome	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			General Medicine, Obstetrics & Gynaecology
RADIOTHERAPY									
RT4.5	Describe and discuss role of radiation in management of common malignancies in India (region specific)	K	KH	Y	Lecture, Bed side clinic	Written/ Viva voce		Pathology	General Surgery, Obstetrics & Gynaecology
RT4.6	Describe and discuss radiotherapy for benign disease	K	KH	Y	Lecture	Written/ Viva voce		Pathology	General Surgery, Obstetrics & Gynaecology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
RT4.7	Counsel patients regarding acute and late effects of radiation and supportive care	K/A/S	KH	Y	Bed side clinic, group discussion	Written/ Viva voce		Pathology	General Surgery, Obstetrics & Gynaecolo gy
RT4.8	Describe oncological emergencies and palliative care	K/A/S	K/KH	Y	Lecture and group discussion	Written/ Viva voce			General Surgery, Obstetrics & Gynaecolo gy
RT5.1	Describe and discuss cancer prevention, screening, vaccination, cancer registry	K	K	Y	Group discussion	Written/ Viva voce		Pathology	General Surgery, Obstetrics & Gynaecolo gy

Modifications are made as per the National Medical Commission (Under Graduate Medical Education Board, 2023) Notification No. U. 14021/8/2023-UGMEB dated 1st August 2023.

1. Duration of Clinical Posting

Sr. No.	Year	Post revision
1	Second Professional	7 weeks
2	Third Professional MBBS Part I	4 weeks
3	Third Professional MBBS Part II	10 weeks

2. Theory

2A. Teaching hours

		Post revision
S e c o n d Professional	Lecture	20
	SGT/Tutorial Hours	-
	SDL	-
	Total Hours	20
T h i r d Professional	Lecture	30

MBBS Part I	SGT/Tutorial Hours	50
	SDL	10
	Total Hours	90
T h i r d Professional MBBS Part II	Lecture	95
	SGT/Tutorial Hours	155
	SDL	55
	Total Hours	305

UNIVERSITY THEORY EXAMINATION PATTERN

Paper I and II		Section A and B	Marks – 100	Time : 3 Hrs.
Type of Question	Marks per question	No. of questions	Total marks	
One sentence answer	1	5 out of 6	5	
LAQ – PB (Compulsory)	10	1	10	
LAQ (structured)	10	1 out of 2	10	
Short notes	5	5 out of 6	25	
	Total	12	50	

Section A = 50 Marks, Section B = 50 Marks, **Total Marks = 100** for each paper

UNIVERSITY PRACTICAL EXAMINATION PATTERN

Subjects	Practical	Viva	Total
Obstetrics and Gynecology	70	30	100

Passing criteria for the University Final Examination

Either Theory minimum 40% and Practical Minimum 60% = Aggregate 50%

Or Theory minimum 60% and Practical Minimum 40% = Aggregate 50%

ORTHOPEDICS

ORTHOPEDICS

a. Competencies:

The student must demonstrate:

- Understanding of indications for various radiological investigations in common clinical practice,
- Awareness of the ill effects of radiation and various radiation protective measures to be employed,
- Ability to identify abnormalities in common radiological investigations.

b. Broad subject specific objectives:

Knowledge:

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

- Enlist and describe the various diagnostic modalities
- Delineate normal and abnormal radiological findings
- Understand basic radiology and emphasize on its clinical applications
- Describe radiographic, ultra sonographic, CT, MRI features of common pathologies.
- Describe and integrate radiological findings in CNS, GIT, RS, CVS, MSK, GUT

c. Skills

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

- Make use of Imaging findings to reach to a diagnosis;
- Analysis and interpret radiological data;
- Demonstrate the skills of solving clinical problems by illustrative evidences and decision making.

d. Integration:

Horizontal and vertical integration to understand the fundamental principles of radiologic imaging, anatomic correlation and their application in diagnosis and therapy.

ORTHOPAEDICS (CODE: OR)

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
ORTHOPEDECS									
Topic: Skeletal Trauma, Poly trauma Number of competencies : (06) Number of procedures that require certification: (NIL)									
OR1.1	Describe and discuss the Principles of pre-hospital care and Casualty management of a trauma victim including principles of triage	K/S/A/C	K/KH	Y	Lecture with video, Small group discussion	Written/ Viva voce/ OSCE/ Simulation			General Surgery, Anaesthesiology
OR1.2	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of shock	K/S	K/KH	Y	Lecture	Written/ Viva voce/ OSCE/ Simulation			General Surgery
OR1.3	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of soft tissue injuries	K	KH/ SH	Y	Lecture, Small group discussion	Written/ OSCE			General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OR1.4	Describe and discuss the Principles of management of soft tissue injuries	K	K/KH	Y	Lecture, Small group discussion	Written/ Assesment / Viva voce			General Surgery
OR1.5	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of dislocation of major joints, shoulder, knee, hip	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic	Written/ Viva voce/ OSCE/ Simulation			
OR1.6	Participate as a member in the team for closed reduction of shoulder dislocation / hip dislocation / knee dislocation	K/S/A/C	SH	Y	Simulation, DOAP session	OSCE/ Simulation			
Topic: Fractures Number of competencies : (16) Number of procedures that require certification: (NIL)									
OR2.1	Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fracture of clavicle	K/S	KH/ SH	Y	Lecture, Small group discussion, Bed side clinic	Written/ Viva voce/ OSCE		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OR2.2	Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fractures of proximal humerus	K	K/KH/ SH	Y	Lecture, Small group discussion, Bed side clinic	Written/ Viva voce/ OSCE		Human Anatomy	
OR2.3	Select, prescribe and communicate appropriate medications for relief of joint pain	K	KH/ SH	Y	Lecture, Small group discussion, Bed side clinic	Written/ Viva voce/ OSCE		Human Anatomy	
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/S	K/KH	Y	Lecture, Small group discussion, Bed side clinic	Written/ Viva voce/ OSCE		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	K/KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		Human Anatomy	
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, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		Human Anatomy	
OR2.7	Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of pelvic injuries with emphasis on hemodynamic instability	K	K/KH/ SH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	K/KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		Human Anatomy	
OR2.9	Describe and discuss the mechanism of injury, Clinical features, investigations and principle of management of acetabular fracture	K	K/KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		Human Anatomy	
OR2.10	Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of proximal femur	K/S/A/C	KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OR2.11	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	K	K/KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		Human Anatomy	
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	K/KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	K/KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		Human Anatomy	
OR2.14	Describe and discuss the aetiopathogenesis, clinical features, Investigation and principles of management of ankle fractures	K/S/C	K/KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		Human Anatomy	
OR2.15	Plan and interpret the investigations to diagnose complications of fractures like malunion, non-union, infection, compartmental syndrome	K/S	SH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	K/KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE		Human Anatomy	
Topic: Musculoskeletal Infection Number of competencies : (03) Number of Procedures that require certification: (NIL)									
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 infection f) Skeletal Tuberculosis	K/S	K/KH/ SH	Y	Lecture, Small group discussion, Video assisted lecture	Written/ Viva voce/ OSCE		Pathology, Microbiolog y	General surgery

Number	COMPETENCY The student should be able to	Domain		Level	Core Y/N	Suggested Teaching learning method	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
		K/S/A/C	SH	K/KH/SH/P						
OR3.2	Participate as a member in team for aspiration of joints under supervision	K/S/A/C	SH	Y	Small group Discussion. DOAP session	Viva voce/ OSCE/ Skills assessment			-	
OR3.3	Participate as a member in team for procedures like drainage of abscess, sequestrectomy/ saucerisation and arthrotomy	K/S/A/C	SH	Y	DOAP session, Video demonstration	Viva voce/ OSCE/ Skills assessment				General Surgery
Topic: Skeletal Tuberculosis Number of competencies : (01) Number of procedures that require certification: (NIL)										
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	K/KH	Y	Lecture, Small group discussion, Case discussion	Written/ Viva voce/ OSCE			Pathology	General surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Rheumatoid Arthritis and associated inflammatory disorders Number of competencies : (01) Number of procedures that require certification: (NIL)									
OR5.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of various inflammatory disorder of joints	K	K/KH	Y	Lecture, Small group discussion, Bedside clinic	Written/ Viva voce/ OSCE			General Medicine
Topic: Degenerative disorders Number of competencies : (01) Number of procedures that require certification: (NIL)									
OR6.1	Describe and discuss the clinical features, investigations and principles of management of degenerative condition of spine (Cervical Spondylosis, Lumbar Spondylosis, PID)	K	K/KH	Y	Lecture, Small group discussion, Case discussion	Written/ Viva voce/ OSCE			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Metabolic bone disorders Number of competencies : (01) Number of procedures that require certification: (NIL)									
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	K	K/KH	Y	Lecture, Small group discussion, Case discussion	Written/ Viva voce/ OSCE			
Topic: Poliomyelitis Number of competencies : (01) Number of procedures that require certification: (NIL)									
OR8.1	Describe and discuss the aetiopathogenesis, clinical features, assessment and principles of management a patient with Post Polio Residual Paralysis	K	K/KH	Y	Lecture, Small group discussion, Case discussion	Written/ Viva voce/ OSCE			
Topic: Cerebral Palsy Number of competencies : (01) Number of procedures that require certification: (NIL)									
OR9.1	Describe and discuss the aetiopathogenesis, clinical features, assessment and principles of management of Cerebral palsy patient	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce/ OSCE			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic : Bone Tumors Number of competencies : (01) Number of procedures that require certification: (NIL)									
OR10.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of benign and malignant bone tumours and pathological fractures	K	K/KH	Y	Lecture, Small group discussion, Video assisted interactive lecture	Written/ Viva voce/ OSCE		Pathology	General surgery, Radiothera py
Topic: Peripheral nerve injuries Number of competencies : (01) Number of procedures that require certification: (NIL)									
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	K	K/H	Y	Lecture, Small group discussion, case discussion	Written/ Viva voce/ OSCE		Human Anatomy	General Medicine, General surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Congenital lesions Number of competencies : (01) Number of procedures that require certification: (NIL)									
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 equino varus	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ OSCE		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Procedural Skills Number of competencies : (02) Number of procedures that require certification: (NIL)									
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	S/A	KH / SH	Y	Case discussion, Video assisted Lecture, Small group discussion, Teaching, Skill lab sessions	OSCE with Simulation based assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S/A	KH / SH	Y	Case discussion, Video assisted Lecture, Small group discussion, Teaching, Skill lab sessions	OSCE with Simulation based assessment			Anaesthesiology
Topic: Counselling Skills Number of competencies : (03) Number of procedures that require certification: (NIL)									
OR14.1	Demonstrate the ability to counsel patients regarding prognosis in patients with various orthopedic illnesses like a. fractures with disabilities b. fractures that require prolonged bed stay c. bone tumours d. congenital disabilities	K/S/A/C	KH / SH	Y	Case discussion, Video assisted lecture, Small group discussion, Teaching, Skills lab sessions	OSCE with Simulation based assessment			AETCOM

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OR14.2	Demonstrate the ability to counsel patients to obtain consent for various orthopedic procedures like limb amputation, permanent fixations etc..	K/S/A/C	KH / SH	Y	Case discussion, Video assisted Lecture, Small group discussion, Teaching, Skills lab sessions	OSCE with Simulation based assessment			AETCOM
OR14.3	Demonstrate the ability to convince the patient for referral to a higher centre in various orthopedic illnesses, based on the detection of warning signals and need for sophisticated management	K/S/A/C	KH / SH	Y	Case discussion, Video assisted Lecture, Small group discussion, Teaching, Skills lab sessions	OSCE with Simulation based assessment			AETCOM

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform.
 Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
INTEGRATION									
HUMAN ANATOMY									
AN2.4	Describe various types of cartilage with its structure & distribution in body	K	KH	Y	Lecture	Written/ Viva voce		Orthopedics	
AN2.5	Describe various joints with subtypes and examples	K	KH	Y	Lecture	Written/ Viva voce		Orthopedics	
AN8.4	Demonstrate important muscle attachment on the given bone	K/S	SH	Y	Practical, DOAP session, Small group teaching	Viva voce/ Practicals		Orthopedics	
AN8.6	Describe scaphoid fracture and explain the anatomical basis of avascular necrosis	K	KH	N	DOAP session	Viva voce		Orthopedics	
AN10.12	Describe and demonstrate Shoulder joint for- type, articular surfaces, capsule, synovial membrane, ligaments, relations, movements, muscles involved, blood supply, nerve supply and applied anatomy	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skills assessment		Orthopedics	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN11.4	Describe the anatomical basis of Saturday night paralysis	K	KH	Y	Practical, Lecture	Written/ Viva voce		Orthopedics	
AN17.2	Describe anatomical basis of complications of fracture neck of femur.	K	KH	N	Lecture	Written/ Viva voce		Orthopedics	
AN17.3	Describe dislocation of hip joint and surgical hip replacement	K	KH	N	Lecture	Written/ Viva voce		Orthopedics	
AN18.6	Describe knee joint injuries with its applied anatomy	K	KH	N	Lecture	Written/ Viva voce		Orthopedics	
AN18.7	Explain anatomical basis of Osteoarthritis	K	KH	N	Lecture	Written/ Viva voce		Orthopedics	
AN19.4	Explain the anatomical basis of rupture of calcaneal tendon	K	KH	N	Lecture	Written/ Viva voce		Orthopedics	
AN19.6	Explain the anatomical basis of Flat foot & Club foot	K	KH	N	Lecture	Written/ Viva voce		Orthopedics	
AN19.7	Explain the anatomical basis of Metatarsalgia & Plantar fasciitis	K	KH	N	Lecture	Written/ Viva voce		Orthopedics	
AN50.4	Explain the anatomical basis of Scoliosis, Lordosis, Prolapsed disc, Spondylolisthesis & Spina bifida	K	KH	N	Lecture	Written		Orthopedics	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PATHOLOGY									
PA33.1	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications of osteomyelitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy, Orthopedics	Microbiology
PA33.2	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications and metastases of bone tumors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Orthopedics	
PA33.3	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications and metastases of soft tissue tumors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Orthopedics	
PA33.4	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications of Paget's disease of the bone	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Orthopedics	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
MICROBIOLOGY									
MI4.2	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of bone & joint infections.	K	KH	Y	Lecture	Written/ Viva voce		Orthopedics	
FORENSIC MEDICINE AND TOXICOLOGY									
FM3.7	Describe factors influencing infliction of injuries and healing, examination and certification of wounds and wound as a cause of death: Primary and Secondary.	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		Forensic medicine, Orthopaedics	
FM3.8	Mechanical injuries and wounds: Describe and discuss different types of weapons including dangerous weapons and their examination.	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery, Orthopaedics	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM3.9	Firearm injuries: Describe different types of firearms including structure and components. Along with description of ammunition propellant charge and mechanism of firearms, different types of cartridges and bullets and various terminology in relation of firearm – caliber, range, choking.	K	K/KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery, Orthopaedics	
FM3.10	Firearm injuries: Describe and discuss wound ballistics-different types of firearm injuries, blast injuries and their interpretation, preservation and dispatch of trace evidences in cases of firearm and blast injuries, various tests related to confirmation of use of firearms	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic DOAP session	Written/ Viva voce / OSCE		General Surgery, Orthopaedics	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM3.11	Regional Injuries: Describe and discuss regional injuries to head (Scalp wounds, fracture skull, intracranial haemorrhages, coup and contrecoup injuries), neck, chest, abdomen, limbs, genital organs, spinal cord and skeleton	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic or autopsy, DOAP session	Written/ Viva voce / OSCE/ OSPE		General Surgery, Orthopaedics	
FM3.12	Regional Injuries Describe and discuss injuries related to fall from height and vehicular injuries – Primary and Secondary impact, Secondary injuries, crush syndrome, railway spine.	K	K/KH	Y	Lecture, Small group discussion, Bed side clinic or autopsy, DOAP session	Written/ Viva voce / OSCE/ OSPE		General Surgery, Orthopaedics	
GENERAL MEDICINE									
IM7.5	Develop a systematic clinical approach to joint pain based on the pathophysiology	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopaedics

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	Suggested Assessme nt method	Number required to certify P	Vertical Integration	Horizontal Integration
IM7.6	Describe and discriminate acute, subacute and chronic causes of joint pain	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedi cs
IM7.7	Discriminate, describe and discuss arthralgia from arthritis and mechanical from inflammatory causes of joint pain	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedi cs
IM7.8	Discriminate, describe and discuss distinguishing articular from periarticular complaints	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedi cs
IM7.9	Determine the potential causes of joint pain based on the presenting features of joint involvement	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedi cs
IM7.10	Describe the common signs and symptoms of articular and periarticular diseases	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedi cs
IM7.13	Perform a systematic examination of all joints, muscle and skin that will establish the diagnosis and severity of disease	S	SH	Y	Bed side clinic, DOAP session	Skill assessme nt			Orthopedi cs

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM7.17	Enumerate the indications for arthrocentesis	K	K	Y	small group discussion, Lecture	Written/ Viva voce			Orthopedics
IM7.18	Enumerate the indications and interpret plain radiographs of joints	K	SH	Y	Bed side clinic, small group discussion	Skill assessment/ Written		Radiodiagnosis	Orthopedics
IM7.21	Select, prescribe and communicate appropriate medications for relief of joint pain	K/C	SH	Y	DOAP session	Skill assessment/ Written		Pharmacology	Orthopedics
IM24.12	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of degenerative joint disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM24.13	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of falls in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics, Physical Medicine & Rehabilitation
IM24.14	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of common fractures in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics, Physical Medicine & Rehabilitation

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PHYSICAL MEDICINE AND REHABILITATION									
PM1.2	Define and describe disability, its cause, and magnitude, identification and prevention of disability	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine Orthopedi cs
PM1.3	Define and describe the methods to identify and prevent disability	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine Orthopedi cs
PM1.4	Enumerate the rights and entitlements of differently abled persons	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine, Orthopedi cs
PM4.1	Describe the common patterns, clinical features, investigations, diagnosis and treatment of common causes of arthritis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine Orthopedi cs
PM4.3	Observe in a mannequin or equivalent the administration of an intra- articular injection	S	KH	N	DOAP session	Skill assessment			Orthopedi cs

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PM4.5	Demonstrate correct assessment of muscle strength and range of movements	S	SH	Y	DOAP session, Bedside clinic	Skill assessment			General Medicine Orthopedics
PM5.1	Enumerate the indications and describe the principles of amputation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics General Surgery
PM5.2	Describe the principles of early mobilization, evaluation of the residual limb, contralateral limb and the influence of co-morbidities	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics
PM5.3	Demonstrate the correct use of crutches in ambulation and postures to correct contractures and deformities	S	SH	Y	DOAP session, Bedside clinic discussion	Skill assessment			Orthopedics
PM5.4	Identify the correct prosthesis for common amputations	S	SH	Y	DOAP session	Skill assessment/ written			Orthopedics

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PM6.3	Describe the principles of skin traction, serial casts and surgical treatment including contracture release, tendon transfer, osteotomies and arthrodesis.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics
PM6.4	Describe the principles of orthosis for ambulation in PPRP	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics
PM7.1	Describe and discuss the clinical features, diagnostic work up, work up diagnosis and management of spinal cord injury	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics
PM7.2	Describe and demonstrate process of transfer, applications of collar restraints while maintaining airway and prevention of secondary injury in a mannequin/ model	S	SH	Y	DOAP session, Small group discussion	Skill assessment			Orthopedics
PM7.3	Perform and demonstrate a correct neurological examination in a patient with spinal injury and determine the neurologic level of injury	S	SH	Y	Bed side clinic	Skill assessment			Orthopedics

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PM7.4	Assess bowel and bladder function and identify common patterns of bladder dysfunction	S	KH	Y	Small group discussion	Written/ Viva voce			General Medicine, Orthopedics
PM7.5	Enumerate the indications and identify the common mobility aids and appliances, wheel chairs	S	S	Y	DOAP session	Skill assessment/ Viva voce			Orthopedics
PM7.7	Enumerate and describe common life threatening complications following SCI like Deep vein Thrombosis, Aspiration Pneumonia, Autonomic dysreflexia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine, Orthopedics
PM8.1	Describe the clinical features, evaluation, diagnosis and management of disability following traumatic brain injury	K	KH	Y	Lecture, Small group discussion	Written / Viva voce			General Medicine, Orthopedics, General Surgery

Modifications are made as per the National Medical Commission (Under Graduate Medical Education Board, 2023) Notification No. U. 14021/8/2023-UGMEB dated 1st August 2023

1. Duration of Clinical Posting

Sr. No.	Year	Post revision
1	Second Professional	2 weeks
2	Third Professional MBBS Part I	2 weeks
3	Third Professional MBBS Part II	4. weeks

2. Theory

2A. Teaching hours

Year	Particulars	Post revision
Second Professional	Lecture	-
	SGT/Tutorial Hours	-
	SDL	-
	Total Hours	-

Third Professional MBBS Part I	Lecture	15
	SGT/Tutorial Hours	20
	SDL	10
	Total Hours	45
Third Professional MBBS Part II	Lecture	25
	SGT/Tutorial Hours	35
	SDL	25
	Total Hours	85

ANAESTHESIOLOGY

ANAESTHESIOLOGY

a. Competencies:

The student must demonstrate ability to:

- Describe and discuss the pre-operative evaluation, assessing fitness for surgery and the modifications in medications in relation to anaesthesia /surgery.
- Describe and discuss the roles of Anaesthesiologist as a peri- operative physician including pre-medication, endotracheal intubation, general anaesthesia and recovery (including variations in recovery from anaesthesia and anaesthetic complications),
- Describe and discuss the management of acute and chronic pain, including labour analgesia,
- Demonstrate awareness about the maintenance of airway in children and adults in various situations,
- Demonstrate the awareness about the indications, selection of cases and execution of cardio- pulmonary
- Resuscitation in emergencies and in the intensive care and high dependency units,
- Choose cases for local regional anaesthesia and demonstrate the ability to administer the same,
- Discuss the implications and obtain informed consent for various procedures and to maintain the documents.

b. Broad subject specific objectives:

Knowledge:

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

- Know of simple nerve block and pain relief

- Awareness of the principles of administration of general, regional and local anaesthesia.
- Know importance of hypoglycaemia/hyperglycaemia, hypotension/hypertension, IHD, Myocardial infarction.
- Know ventilators.

c. Skills

At the end of the training, the students should be able to:

- Perform cardio-pulmonary resuscitation with the available resources and transfer the patients to a bigger hospital for advanced life support.
- Set up intravenous infusion and manage fluid therapy
- Clear and maintain airway in unconscious patient.
- Administer oxygen correctly
- General knowledge about diagnosis of brain death and relevance in deceased donor organ transplantation.

c. Integration

The teaching should be aligned and integrated horizontally and vertically in order to provide comprehensive care for patients undergoing various surgeries, in patients with pain, in intensive care and in cardio respiratory emergencies. Integration with the departments of Anatomy, Pharmacology and horizontal integration with any/all surgical specialties is proposed.

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
ANAESTHESIOLOGY									
Topic: Anaesthesiology as a specialty Number of competencies: (04) Number of procedures that require certification: (NIL)									
AS1.1	Describe the evolution of Anaesthesiology as a modern specialty	K	K	N	Lecture	Written/ Viva voce			
AS1.2	Describe the roles of Anaesthesiologist in the medical profession (including as a peri-operative physician, in the intensive care and high dependency units, in the management of acute and chronic pain, including labour analgesia, in the resuscitation of acutely ill)	K	K	N	Lecture	Written/ Viva voce			
AS1.3	Enumerate and describe the principle of ethics as it relates to Anaesthesiology	K	K	N	Lecture	Written/ Viva voce		AETCOM	
AS1.4	Describe the prospects of Anaesthesiology as a career	K	K	N	Lecture	Written/ Viva voce			
Topic: Cardiopulmonary resuscitation Number of competencies: (02) Number of procedures that require certification : (NIL)									
AS2.1	Enumerate the indications, describe the steps and demonstrate in a simulated environment, Basic Life Support in adults, children and neonates	K/S	SH	N	DOAP session	Skill assessment		General Medicine, Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS2.2	Enumerate the indications, describe the steps and demonstrate in a simulated environment, Advanced Life Support in adults and children	S	SH	N	DOAP session	Skill assessment		General Medicine	
Topic: Preoperative evaluation and medication Number of competencies: (06) Number of procedures that require certification : (NIL)									
AS3.1	Describe the principles of preoperative evaluation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Surgery, General Medicine
AS3.2	Elicit, present and document an appropriate history including medication history in a patient undergoing Surgery as it pertains to a preoperative anaesthetic evaluation	S	SH	Y	DOAP session, Bedside clinic	Skill station			General Surgery, General Medicine
AS3.3	Demonstrate and document an appropriate clinical examination in a patient undergoing General Surgery	S	SH	Y	DOAP session, Bedside clinic	Skill station			General Surgery, General Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS3.4	Choose and interpret appropriate testing for patients undergoing Surgery	S	SH	Y	DOAP session, Bedside clinic	Skill station			General Surgery, General Medicine
AS3.5	Determine the readiness for General Surgery in a patient based on the preoperative evaluation	S	SH	Y	DOAP session, Bedside clinic	Skill station			General Surgery, General Medicine
AS3.6	Choose and write a prescription for appropriate premedications for patients undergoing surgery	S	SH	Y	DOAP session, Bedside clinic	Skill station		Pharmacology	
Topic: General Anaesthesia Number of competencies: (07) Number of procedures that require certification : (NIL)									
AS4.1	Describe and discuss the pharmacology of drugs used in induction and maintenance of general anaesthesia (including intravenous and inhalation induction agents, opiate and non-opiate analgesics, depolarising and non depolarising muscle relaxants, anticholinesterases)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS4.2	Describe the anatomy of the airway and its implications for general anaesthesia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
AS4.3	Observe and describe the principles and the practical aspects of induction and maintenance of anaesthesia	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Pharmacology	
AS4.4	Observe and describe the principles and the steps/ techniques in maintenance of vital organ functions in patients undergoing surgical procedures	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			
AS4.5	Observe and describe the principles and the steps/ techniques in monitoring patients during anaesthesia	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS4.6	Observe and describe the principles and the steps/ techniques involved in day care anaesthesia	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			
AS4.7	Observe and describe the principles and the steps/ techniques involved in anaesthesia outside the operating room	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			
Topic: Regional anaesthesia Number of competencies: (06) Number of procedures that require certification: (NIL)									
AS5.1	Enumerate the indications for and describe the principles of regional anaesthesia (including spinal, epidural and combined)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
AS5.2	Describe the correlative anatomy of the brachial plexus, subarachnoid and epidural spaces	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS5.3	Observe and describe the principles and steps/ techniques involved in peripheral nerve blocks	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Human Anatomy	
AS5.4	Observe and describe the pharmacology and correct use of commonly used drugs and adjuvant agents in regional anesthesia	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Pharmacology	
AS5.5	Observe and describe the principles and steps/ techniques involved in caudal epidural in adults and children	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS5.6	Observe and describe the principles and steps/ techniques involved in common blocks used in surgery (including brachial plexus blocks)	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			General Surgery
Topic: Post-anaesthesia recovery Number of competencies: (03) Number of procedures that require certification: (NIL)									
AS6.1	Describe the principles of monitoring and resuscitation in the recovery room	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			
AS6.2	Observe and enumerate the contents of the crash cart and describe the equipment used in the recovery room	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS6.3	Describe the common complications encountered by patients in the recovery room, their recognition and principles of management	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			General Surgery
Topic: Intensive Care Management Number of competencies: (05) Number of procedures that require certification: (NIL)									
AS7.1	Visit, enumerate and describe the functions of an Intensive Care Unit	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			
AS7.2	Enumerate and describe the criteria for admission and discharge of a patient to an ICU	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			General Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS7.3	Observe and describe the management of an unconscious patient	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Physiology	General Medicine
AS7.4	Observe and describe the basic setup process of a ventilator	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Physiology	General Medicine
AS7.5	Observe and describe the principles of monitoring in an ICU	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			General Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Pain and its management Number of competencies: (05) Number of procedures that require certification: (NIL)									
AS8.1	Describe the anatomical correlates and physiologic principles of pain	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Human Anatomy, Physiology	
AS8.2	Elicit and determine the level, quality and quantity of pain and its tolerance in patient or surrogate	S	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Physiology	
AS8.3	Describe the pharmacology and use of drugs in the management of pain	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Pharmacology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS8.4	Describe the principles of pain management in palliative care	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Pharmacology	General Medicine
AS8.5	Describe the principles of pain management in the terminally ill	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Pharmacology	General Medicine
Topic: Fluids Number of competencies: (04) Number of procedures that require certification: (NIL)									
AS9.1	Establish intravenous access in a simulated environment	S	KH	Y	Small group discussion, DOAP session	Skill assessment			

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS9.2	Establish central venous access in a simulated environment	S	KH	Y	Small group discussion, DOAP session	Skill assessment			
AS9.3	Describe the principles of fluid therapy in the preoperative period	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			General Surgery
AS9.4	Enumerate blood products and describe the use of blood products in the preoperative period	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Pathology	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Patient safety Number of competencies: (04) Number of procedures that require certification: (NIL)									
AS10.1	Enumerate the hazards of incorrect patient positioning	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			
AS10.2	Enumerate the hazards encountered in the perioperative period and steps/techniques taken to prevent them	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce			
AS10.3	Describe the role of communication in patient safety	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		AETCOM	General Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AS10.4	Define and describe common medical and medication errors in anaesthesia	K	KH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce		Pharmacology	General Medicine
<p>Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation</p>									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
INTEGRATION									
PHYSIOLOGY									
PY3.4	Describe the structure of neuro-muscular junction and transmission of impulses	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Anaesthes iology	
PY3.5	Discuss the action of neuro-muscular blocking agents	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce		Anaesthes iology Pharmacol ogy	
PY11.1 4	Demonstrate Basic Life Support in a simulated environment	S	SH	Y	DOAP sessions	OSCE		General Medicine Anaesthes iology	
PHARMACOLOGY									
PH1.15	Describe mechanism/s of action, types, doses, side effects, indications and contraindications of skeletal muscle relaxants	K	KH	Y	Lecture	Written/ Viva voce		Anesthesi ology, Physiolog y	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PH1.17	Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of local anaesthetics	K	KH	Y	Lecture	Written/ Viva voce		Anesthesiology	
PH1.18	Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of general anaesthetics, and preanaesthetic medications	K	KH	Y	Lecture	Written/ Viva voce		Anesthesiology	
FORENSIC MEDICINE AND TOXICOLOGY									
FM2.19	Investigation of anaesthetic, operative deaths: Describe and discuss special protocols for conduction of autopsy and for collection, preservation and dispatch of related material evidences	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Anesthesiology, General Surgery	
GENERAL MEDICINE									
IM13.17	Describe and enumerate the indications, use, side effects of narcotics in pain alleviation in patients with cancer	K	KB	Y	Bedside clinic, small group discussion	short note/ Viva voce		Pharmacology	Anesthesiology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM24.11	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			Anesthesi ology General Surgery
GENERAL SURGERY									
SU11.1	Describe principles of Preoperative assessment.	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			Anesthesi ology
SU11.2	Enumerate the principles of general, regional, and local Anaesthesia.	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			Anesthesi ology
SU11.3	Demonstrate maintenance of an airway in a mannequin or equivalent	S	SH	Y	DOAP session	Skill Assessme nt			Anesthesi ology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
SU11.5	Describe principles of providing post-operative pain relief and management of chronic pain.	K	KH	Y	Lecture, Small group discussio n	Written/ Viva voce			Anesthesi ology
SU17.2	Demonstrate the steps in Basic Life Support. Transport of injured patient in a simulated environment	S	SH	Y	DOAP session	Skill assessmen t			Anesthesi ology
SU17.1 0	Demonstrate Airway maintenance and recognize and management of tension pneumothorax, hemothorax and flail chest in simulated environment	S	SH	Y	DOAP session	Skill Assessme nt/ Log book			Anesthesi ology
ORTHOPAEDICS									
OR1.1	Describe and discuss the Principles of Pre hospital care and Casualty management of a trauma victim including principles of triage,	K/S/A/C	K, KH	Y	Lecture with video, Small group Discussio n	Written/ Viva voce/ OSCE/ Simulation			General Surgery Anaesthes iology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OR13.2	Participate as a member in team for Resuscitation of Polytrauma victim by doing all of the following : (a) IV. access central - peripheral (b) Bladder catheterization (c)Endotracheal intubation (d) Splintage	S/A	KH / SH	Y	Case discussion, Video assisted Lecture, Small group discussion, Teaching, Skill lab sessions	OSCE with Simulation based assessment			Anaesthesiology

Modifications are made as per the National Medical Commission (Under Graduate Medical Education Board, 2023) Notification No. U. 14021/8/2023-UGMEB dated 1st August 2023

Teaching hours have been shifted from Third Professional MBBS (Part I) to Third Professional MBBS (Part II).

Lectures: **8**

SGL: **15**

SDL: **15**

Total: **38**

Clinical Postings have been removed from Third Professional MBBS (Part I) and added to Third Professional MBBS (Part II).

Third Professional MBBS (Part II): 3 weeks

RADIODIAGNOSIS

RADIODIAGNOSIS

a. Competencies:

The student must demonstrate:

- Understanding of indications for various radiological investigations in common clinical practice,
- Awareness of the ill effects of radiation and various radiation protective measures to be employed,
- Ability to identify abnormalities in common radiological investigations.

b. Broad subject specific objectives:

Knowledge:

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

- Enlist and describe the various diagnostic modalities
- Delineate normal and abnormal radiological findings
- Understand basic radiology and emphasize on its clinical applications
- Describe radiographic, ultra sonographic, CT, MRI features of common pathologies.
- Describe and integrate radiological findings in CNS, GIT, RS, CVS, MSK, GUT

c. Skills

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

- Make use of Imaging findings to reach to a diagnosis;
- Analysis and interpret radiological data;
- Demonstrate the skills of solving clinical problems by illustrative evidences and decision making.

d. Integration:

Horizontal and vertical integration to understand the fundamental principles of radiologic imaging, anatomic correlation and their application in diagnosis and therapy.

RADIODIAGNOSIS (CODE: RD)

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	Suggested Assessment method	Number required to certify P	Vertical Integrati on	Horizontal Integration
RADIODIAGNOSIS									
Topic: Radiological investigations and Radiation safety Number of competencies: (13) Number of procedures that require certification: (NIL)									
RD1.1	Define radiation and the interaction of radiation and importance of radiation protection	K	KH	Y	Lecture, Demonstrati on	Lecture	-	Radiodi agnosis	-
RD1.2	Describe the evolution of Radiodiagnosis. Identify various radiological equipments In the current era	S	SH	Y	Lecture, Demonstrati on	Lecture, Demonstrati on	-	RD	-
RD1.3	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder of ENT / Ophthalmology RD - Radiodiagnosis	K/S	SH	Y	Lecture, Demonstrati on	Theory, Lecture, Practical, Demonstrati on	-	RD	- Surgery - Urosurgery - OBGY - Medicine - Urology etc. -Ophthalm ology

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	Suggested Assessment method	Number required to certify P	Vertical Integrati on	Horizontal Integration
RD1.4	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Ob & Gy	K/S	SH	Y	Lecture, Demonstrati on	Lecture + Practical, Demonstrati on	-	RD	OBGY
RD1.5	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in internal medicine	K/S	SH	Y	Lecture, Demonstrati on	Lecture + Practical, Demonstrati on		RD	Internal Medicine
RD1.6	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorderls in surgery	K/S	SH	Y	Lecture, Demonstrati on	Lecture + Practical, Demonstrati on		RD	Surgery

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	Suggested Assessment method	Number required to certify P	Vertical Integrati on	Horizontal Integration
RD1.7	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to disorder in Pediatrics	K/S	SH	Y	Lecture, Demonstrati on	Lecture + Demonstrati on	-	RD	Paediatrics
RD1.8	Enumerate indications for various common radiological investigations, choose the most appropriate and cost effective method and interpret findings in common conditions pertaining to common malignancies	K/S	SH	Y	Lecture, Demonstrati on	Lecture + Demonstrati on	-	RD	All Clinical Branches
RD1.9	Describe the role of Interventional Radiology in common clinical conditions	K	KH	Y	Lecture, Demonstrati on	Tutorial + Case Base Study	-	RD	IR + Clinical Subjects
RD1.10	Describe the role of Emergency Radiology, miscellaneous & applied aspects, interaction with clinical departments	K	KH	Y	Lecture, Demonstrati on	Practical Demonstrati on on cases + case base exam	-	RD	- Emergency Medicine - Clinical Medicine
RD1.11	Describe preparation of patient for common imaging procedures	K	KH	Y	Lecture, Demonstrati on	Case Based	-	RD	Clinical Branches

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	Suggested Assessment method	Number required to certify P	Vertical Integrati on	Horizontal Integration
RD1.12	Describe the effects of radiation in pregnancy and the methods of prevention/ minimization of radiation exposure	K	KH	Y	Lecture, Demonstrati on	Viva Spots	-	RD	OBGY
RD1.13	Describe the components of the PC & PNDT Act and its medicolegal implications	K	KH	Y	Lecture, Small group discussion	-	-	RD	OBGY
<p>Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation</p>									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
INTEGRATION									
HUMAN ANATOMY									
AN13.4	Identify the bones and joints of upper limb seen in anteroposterior and lateral view radiographs of shoulder region, arm, elbow, forearm and hand	K/S	SH	Y	Practical, Small group discussion, DOAP session	Viva voce/ Skill assessment	-	Radiodiagn osis	Orthopedic s

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN20.6	Identify the bones and joints of lower limb seen in anteroposterior and lateral view radiographs of various regions of lower limb	K/S	SH	Y	Lecture, Small group discussion, DOAP session	Viva voce/ Skill assessment	-	Radiodiagnosis	Orthopedics
AN25.7	Identify structures seen on a plain x-ray chest (PA view)	K/S	SH	Y	Practical, DOAP session	Written/ Viva voce	-	Radiodiagnosis, General Medicine	- Medicine - Respiratory Medicine
AN25.8	Identify and describe in brief a barium swallow	K/S	SH	N	Practical, DOAP session	Written/ Viva voce	-	Radiodiagnosis, General Medicine	Surgery
AN43.7	Identify the anatomical structures in 1) Plain x ray skull, 2) AP view and lateral view 3) Plain x ray cervical spine - AP and lateral view 4) Plain x ray of paranasal sinuses	K/S	SH	Y	Practical	Viva voce/ Skill assessment	-	Radiodiagnosis	- Neuro Surgery - Orthopedics - ENT

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN43.8	Describe the anatomical route used for carotid angiogram and vertebral angiogram	K/S	SH	N	Practical	Viva voce/ Skill assessment		Radiodiagn osis	- Neurosurge ry - Medicine - Innervation al Radiology
AN43.9	Identify anatomical structures in carotid angiogram and vertebral angiogram	K/S	SH	N	Practical	Viva voce/ Skill assessment		Radiodiagn osis IR	- Neurosurge ry - Medicine
AN51.1	Describe & identify the cross-section at the level of T8, T10 and L1 (transpyloric plane)	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		Radiodiagn osis	- Medicine - Surgery - Respiratory Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN51.2	Describe & identify the midsagittal section of male and female pelvis	K	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment		Radiodiagn osis	- Orthopedic s - OBGY - Surgery
AN54.1.	Describe & identify features of plain X ray abdomen	K/S	SH	Y	Lecture, DOAP session	Viva voce/ Skill assessment		Radiodiagn osis	- Surgery - Emergency Medicine - Medicine
AN54.2	Describe & identify the special radiographs of abdominopelvic region (contrast X ray Barium swallow, Barium meal, Barium enema, Cholecystography, Intravenous pyelography &Hysterosalpingography)	K/S	SH	Y	Lecture, DOAP session	Viva voce/ Skill assessment		Radiodiagn osis	Surgery - Oncosurger y
AN54.3	Describe role of ERCP, CT abdomen, MRI, Arteriography in radiodiagnosis of abdomen	K	KH	N	Lecture	Viva voce		Radiodiagn osis	- Medicine - Surgery all Clinical Branches
FORENSIC MEDICINE AND TOXICOLOGY									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
FM1.9	Describe the importance of documentation in medical practice in regard to medicolegal examinations, Medical Certificates and medicolegal reports especially: -- 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 Number4 and 4A -- documents for estimation of age by physical, dental and radiological examination and issuance of certificate	K	KH	Y	Lecture/ Small group discussion	Written/ Viva voce		Radiodiagnosis, General Surgery, General Medicine, Pediatrics	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
GENERAL MEDICINE									
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	S	KH	N	Lecture, Small group discussion, Bedside clinic	Skill assessment		Radiodiagnosis	- Medicine - Interventional Radiology
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	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Radiodiagnosis, Microbiology	- Medicine - Respiratory Medicine
IM3.11	Describe and enumerate the indications for further testing including HRCT, Viral cultures, PCR and specialised testing	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Radiodiagnosis, Microbiology	- Respiratory Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM5.13	Enumerate the indications for ultrasound and other imaging studies including MRCP and ERCP and describe the findings in liver disease	K	K	Y	Bedside clinic, Small group discussion	Viva voce/ Written		Radiodiagnosis	General Surgery
IM6.12	Enumerate the indications and describe the findings for CT of the chest and brain and MRI	K	K	N	Small group discussion, Lecture, Bedside clinic	Written/ Viva voce		Radiodiagnosis	- Respiratory Medicine - Neurosurgery - Emergency medicine
IM7.18	Enumerate the indications and interpret plain radiographs of joints	K	SH	Y	Bedside clinic, Small group discussion	Skill assessment / Written		Radiodiagnosis	Orthopedics
IM10.19	Enumerate the indications and describe the findings in renal ultrasound	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Radiodiagnosis	- Medicine - Surgery - Urology - Urology

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
IM13.12	Describe the indications and interpret the results of Chest X Ray, mammogram, skin and tissue biopsies and tumor markers used in common cancers	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Radiodiagnosis	All Clinical Branches
IM18.9	Choose and interpret the appropriate diagnostic and imaging test that will delineate the anatomy and underlying cause of the lesion	S	KH	Y	Bedside clinic, DOAP session, Small group discussion	Written/ Viva voce/ Skill assessment		Radiodiagnosis	All Clinical Branches
IM19.7	Choose and interpret diagnostic and imaging tests in the diagnosis of movement disorders	S	SH	Y	Bedside clinic, Small group discussion	Skill assessment / Small group session/ Written/ Viva voce		Radiodiagnosis	Neurology - Medicine - Emergency Medicine

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OBSTETRICS AND GYNAECOLOGY									
OG9.4	Discuss the clinical features, laboratory investigations ultrasonography, differential diagnosis, principles of management and follow up of gestational trophoblastic neoplasms	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		OBGY	Radiodiagn osis
PEDIATRICS									
PE21.1 2	Interpret report of Plain radiograph of KUB	S	SH	Y	Bedside clinics, Skills lab	Log book		Radiodiagn osis	- Urosurgery - Surgery - Paediatrics
PE21.1 3	Enumerate the indications for and Interpret the written report of Ultra sonogram of KUB	S	SH	Y	Bedside clinics, Skills lab	Log book		Radiodiagn osis	- Urosurgery - Surgery
PE23.1 3	Interpret a chest radiograph and recognize Cardiomegaly	S	SH	Y	Bedside clinics, Skills lab	Log book entry		Radiodiagn osis	- Medicine - CVTS

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE23.1 6	Use the ECHO reports in management of cases	S	SH	Y	Bedside clinics	Log book entry		Radiodiagnosis	
PE28.1 7	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	S	P	Y	Bedside clinics, Small group discussion	Skills Assessment	3	ENT, Radiodiagnosis	- ENT - Paediatrics Surgery - Surgery
PE30.2 3	Interpret the reports of EEG, CT, MRI	S	SH	Y	Bedside clinics, Skill lab	Log book		Radiodiagnosis	All Clinical Branches
PE34.8	Interpret a Chest radiograph	S	SH	Y	Bedside clinics, Skill lab	Skill assessment		Radiodiagnosis	Respiratory Medicine
GENERAL SURGERY									
SU25.3	Describe the etiopathogenesis, clinical features, Investigations and principles of treatment of benign and malignant tumours of breast.	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce Skill assessment		Radiodiagnosis	- Onco Surgery - Surgery - Medicine

Modifications are made as per the National Medical Commission (Under Graduate Medical Education Board, 2023) Notification No. U. 14021/8/2023-UGMEB dated 1st August 2023

Teaching hours have been shifted from Third Professional MBBS (Part I) to Third Professional MBBS (Part II).

Lectures: **8**

SGL: **15**

SDL: **15**

Total: **38**

Clinical Postings have been removed from Second Professional MBBS and added to Third Professional MBBS (Part II). The weeks have increased as well by 2.

Third Professional MBBS (Part II): 2 weeks

OPHTHALMOLOGY

OPHTHALMOLOGY

a. Competencies:

The 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 recognize visual impairment and blindness in the community and implement national programmes as applicable in the primary care setting.

b. Broad subject specific objectives

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, Schiötz 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 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.

OPHTHALMOLOGY (CODE: OP)

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	Suggeste d Assessme nt method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OPHTHALMOLOGY									
Topic: Visual Acuity Assessment Number of Competencs : (05) Number of procedures that require certification : (NIL)									
OP1.1	Describe the physiology of vision	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiolo gy	
OP1.2	Define, classify and describe the types and methods of correcting refractive errors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP1.3	Demonstrate the steps in performing the visual acuity assessment for distance vision, near vision, colour vision, the pin hole test and the menace and blink reflexes Demo – visual acuity assessment for far and near, Pin hole test, Subjective refraction, Retinoscopy, Correction of presbyopia	S	SH	Y	DOAP session, Lecture	Skill assessm ent/ Logbook	5		

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	Suggeste d Assesse ment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP1.4	Enumerate the indications and describe the principles of refractive surgery	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP1.5	Define, enumerate the types and the mechanism by which strabismus leads to amblyopia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Lids and Adnexa, Orbit Number of Competencies: (08) Number of procedures that require certification: (NIL)									
OP2.1	Enumerate the causes, describe and discuss the aetiology, 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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
OP2.2	Demonstrate the symptoms & clinical signs of conditions enumerated in OP2.1 Demo- ROPLAS test, Bell's Phenomenon	S	S	Y	DOAP session	Skill assessm ent			

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	Suggeste d Assesse nt method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP2.3	Demonstrate under supervision clinical procedures performed in the lid including: bells phenomenon, assessment of entropion/ ectropion, perform the regurgitation test of lacrimal sac. massage technique in cong. dacryocystitis, and trichiatic cilia removal by epilation Demo- ROPLAS test, Bell's Phenomenon, Epilation, Sac syringing	S	SH	Y	DOAP session, Lecture	Skill assessment	2		
OP2.4	Describe the aetiology, clinical presentation. Discuss the complications and management of orbital cellulitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP2.5	Describe the clinical features on ocular examination and management of a patient with cavernous sinus thrombosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP2.6	Enumerate the causes and describe the differentiating features, and clinical features and management of proptosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggeste d Assesse ment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP2.7	Classify the various types of orbital tumours. Differentiate the symptoms and signs of the presentation of various types of ocular tumours	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP2.8	List the investigations helpful in diagnosis of orbital tumors. Enumerate the indications for appropriate referral	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Topic: Conjunctiva Number of Competencies (09) Number of procedures that require certification: (NIL)									
OP3.1	Elicit document and present an appropriate history in a patient presenting with a “red eye” including congestion, discharge, pain Demo- History taking and basic eye examination	S	SH	Y	DOAP session	Skill Assessm ent			
OP3.2	Demonstrate document and present the correct method of examination of a “red eye” including vision assessment, corneal lustre, pupil abnormality, ciliary tenderness Demo- How to elicit Corneal Sensations, Pupillary Reactions	S	SH	Y	DOAP session	Skill Assessm ent			

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	Suggeste d Assesse nt method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP3.3	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications. and management of various causes of conjunctivitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP3.4	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of trachoma.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP3.5	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of vernal catarrh	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP3.6	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of pterygium	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggeste d Assesse ment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP3.7	Describe the aetiology, pathophysiology, ocular features, differential diagnosis, complications and management of symblepharon	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP3.8	Demonstrate correct technique of removal of foreign body from the eye in a simulated environment Demo – Corneal Fluroscein Staining, Foreign Body removal	S	SH	Y	DOAP session	Skill assesm ent			
OP3.9	Demonstrate the correct technique of instillation of eye drops in a simulated environment Demo – instillation of eye drops	S	SH	Y	DOAP session	Skill assesm ent			
Topic: Corneas Number of Competencies: (10) Number of procedures that require certification: (NIL)									
OP4.1	Enumerate, describe and discuss the types and causes of corneal ulceration	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	

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	Suggeste d Assesse nt method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP4.2	Enumerate and discuss the differential diagnosis of infective keratitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP4.3	Enumerate the causes of corneal edema	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP4.4	Enumerate the causes and discuss the management of dry eye	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP4.5	Enumerate the causes of corneal blindness	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP4.6	Enumerate the indications and the types of keratoplasty	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggeste d Assesse ment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP4.7	Enumerate the indications and describe the methods of tarsorrhaphy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP4.8	Demonstrate technique of the cornea in a removal of foreign body in simulated environment	S	SH	Y	DOAP session	Skill assessm ent			
OP4.9	Describe and discuss the involved in eye importance and protocols donation and eye banking	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP4.10	Counsel patients and family in a simulated about eye donation environment Skill- Assist in Counselling family about eye donation	A/C	SH	Y	DOAP session	Skill assessm ent			
Topic: Sclera Number of competencies: (02) Number of procedures that require certification : (NIL)									
OP5.1	Define, enumerate and describe the aetiology, associated systemic conditions, clinical features complications indications for referral and management of episcleritis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggeste d Assesse ment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP5.2	Define, enumerate and describe the aetiology, associated systemic conditions, clinical features, complications, indications for referral and management of scleritis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
Topic: Iris and Anterior chamber Number of Competencies (10) Number of procedures that require certification: (NIL)									
OP6.1	Describe clinical signs of intraocular inflammation and enumerate the features that distinguish granulomatous from non-granulomatous inflammation. Identify acute iridocyclitis from chronic condition	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP6.2	Identify and distinguish acute iridocyclitis from chronic iridocyclitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP6.3	Enumerate systemic conditions that can present as iridocyclitis and describe their ocular manifestations	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine
OP6.4	Describe and distinguish hyphema and hypopyon	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggeste d Assessme nt method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP6.5	Describe and discuss the angle of the anterior chamber and its clinical correlates	K	KH		Lecture, Small group discussion	Written/ Viva voce			
OP6.6	Identify and demonstrate the clinical features and distinguish and diagnose common clinical conditions affecting the anterior chamber Demo – Digital tonometry, Schiottz tonometry	S	SH	Y	DOAP session, Bedside clinic	Skill assessm ent			
OP6.7	Enumerate and discuss the aetiology, the clinical distinguishing features of various glaucomas associated with shallow and deep anterior chamber. Choose appropriate investigations and treatment for patients with above conditions.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
OP6.8	Enumerate and choose the appropriate investigation for patients with conditions affecting the Uvea	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggeste d Assessme nt method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP6.9	Choose the correct local and systemic therapy for conditions of the anterior chamber and enumerate their indications, adverse events and interactions	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP6.10	Counsel patients with conditions of the iris and anterior chamber about their diagnosis, therapy and prognosis in an empathetic manner in a simulated environment Skill –Assist in Counselling glaucoma patients regarding their management protocol	A/C	SH	Y	DOAP session	Skill assessm ent			
Topic: Lens Number of Competencies: (06) Number of procedures that require certification: (NIL)									
OP7.1	Describe the surgical anatomy and the metabolism of the lens	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Biochemi stry, Human Anatomy	
OP7.2	Describe and discuss the aetio-pathogenesis, stages of maturation and complications of cataract	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Patholog y	

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	Suggeste d Assesse nt method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP7.3	Demonstrate the correct technique of ocular examination in a patient with a cataract Demo- Anterior segment eye examination, Grading of Cataract	S	SH	Y	DOAP session	Skill assessment			
OP7.4	Enumerate the types of cataract surgery and describe the steps, intra-operative and post-operative complications of extracapsular cataract extraction surgery.	S	KH	Y	DOAP session, Lecture, Small group discussion	Written/ Viva voce			
OP7.5	To participate in the team for cataract surgery Skill- Participate in eye camps	S	SH	Y	DOAP session	Skill assessment/ Logbook documentation			

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	Suggeste d Assesse ment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP7.6	Administer informed consent and counsel patients for cataract surgery in a simulated environment Skill- Assist in patient counselling on deciding the plan of surgery and motivate patients for surgery	S	SH	Y	DOAP session	Skill Assessment			
Topic: Retina & optic Nerve Number of Competencies (05) Number of procedures that require certification : (NIL)									
OP8.1	Discuss the aetiology, pathology, clinical features and management of vascular occlusions of the retina	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy, Pathology	
OP8.2	Enumerate the indications for laser therapy in the treatment of retinal diseases (including retinal detachment, retinal degenerations, diabetic retinopathy & hypertensive retinopathy)	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggeste d Assesse ment method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP8.3	Demonstrate the correct technique of a fundus examination and describe and distinguish the funduscopy features in a normal condition and in conditions causing an abnormal retinal exam Demo- Distant Direct Ophthalmology, Direct Ophthalmoscopy	S	SH	Y	Lecture, Small group discussion	Skill Assessm ent			
OP8.4	Enumerate and discuss treatment modalities in management of diseases of the retina	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
OP8.5	Describe and discuss the correlative anatomy, aetiology, clinical manifestations, diagnostic tests, imaging and management of diseases of the optic nerve and visual pathway	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

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	Suggeste d Assesse nt method	Number required to certify P	Vertical Integratio n	Horizontal Integration
Topic: Miscellaneous Number of Competencies (05) Number of procedures that require certification: (01)									
OP9.1	Demonstrate the correct technique to examine extra ocular movements (Unocular & Binocular) Demo- Extraocular movements	S	P	Y	DOAP session	Skill Assessment	2		
OP9.2	Classify, enumerate the types, methods of diagnosis and indications for referral in a patient with heterotropia/ strabismus Demo-Hirschberg test, Cover test	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ skill assessment			
OP9.3	Describe the role of refractive error correction in a patient with headache and enumerate the indications for referral	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			General Medicine
OP9.4	Enumerate, describe and discuss the causes of avoidable blindness and the National Programs for Control of Blindness (including vision 2020)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Community Medicine

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	Suggeste d Assesse nt method	Number required to certify P	Vertical Integratio n	Horizontal Integration
OP9.5	Describe the evaluation and enumerate the steps involved in the stabilisation, initial management and indication for referral in a patient with ocular injury DEMO-first aid management in Mechanical and Chemical Injury patient	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce Skill			
<p>Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation</p>									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
INTEGRATION									
HUMAN ANATOMY									
AN30.5	Explain effect of pituitary tumours on visual pathway	K	KH	N	Lecture	Written		Human Anatomy	
AN31.3	Describe anatomical basis of Horner's syndrome	K	KH	N	Lecture	Written		Human Anatomy	
AN31.5	Explain the anatomical basis of oculomotor, trochlear and abducent nerve palsies along with strabismus	K	KH	Y	Lecture	Written		Human Anatomy	
AN41.1	Describe & demonstrate parts and layers of eyeball	K/S	SH	Y	Practical, Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
AN41.2	Describe the anatomical aspects of cataract, glaucoma & central retinal artery occlusion Principles of identification and management of ophthalmic emergencies	K	KH	N	Lecture	Written		Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN41.3	Describe the position, nerve supply and actions of intraocular muscles	K	KH	N	Lecture	Written		Human Anatomy	
PHYSIOLOGY									
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 Demo- Pupillary Reactions	K	KH	Y	Lecture, Small group discussion	Written/ viva Skill		Ophthalmology	
PY10.18	Describe and discuss the physiological basis of lesion in visual pathway	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Ophthalmology	
PY10.19	Describe and discuss auditory & visual evoke potentials	K	KH	Y	Lecture, Small group discussion	Written/ viva		Ophthalmology ENT	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PY10.20	Demonstrate testing of visual acuity, colour and field of vision in volunteer/ simulated environment Demo – Color Vision, Confrontation test	S	P	Y	DOAP sessions	Skill assessment/ Viva voce	1	ENT, Ophthalmology	
PATHOLOGY									
PA36.1	Describe the etiology, genetics, pathogenesis, pathology, presentation, sequelae and complications of retinoblastoma	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Ophthalmology	
PHARMACOLOGY									
PH1.58	Describe drugs used in Ocular disorders Adverse Drug Reactions with reference to systemic and ophthalmic manifestations	K	KH	Y	Lecture	Written/ Viva voce		Ophthalmology	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
GENERAL MEDICINE									
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	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Ophthalmology

Modifications are made as per the National Medical Commission (Under Graduate Medical Education Board, 2023) Notification No. U. 14021/8/2023-UGMEB dated 1st August 2023

1. Duration of Clinical Posting

Sr. No.	Year	Post revision	Change
1	Second Professional	0 Weeks	Deduction of 2 weeks (Major)
2	Third Professional MBBS Part I	3 weeks	Deduction of 1 Week (Minor)
3	Third Professional MBBS Part II	4 weeks	Addition of 4 weeks(Major)

2. Theory

2A. Teaching hours

		Post revision	Changes
Third Professional MBBS Part I	Lecture	15	15 hours decreased
	SGT/Tutorial Hours	20	40 hours decreased
	SDL	10	No change
	Total Hours	45	55 hours decreased
Third Professional MBBS Part II	Lecture	15	15 hours increased
	SGT/Tutorial Hours	25	25 hours increased
	SDL	15	15 hours increased
	Total Hours	55	55 hours increased

UNIVERSITY THEORY EXAMINATION PATTERN

Paper I	Section A and B	Marks – 100	Time : 3 Hrs.
Type of Question	Marks per question	No. of questions	Total marks
One sentence answer	1	5 out of 6	5
LAQ – PB (Compulsory)	10	1	10
LAQ (structured)	10	1 out of 2	10
Short notes	5	5 out of 6	25
	Total	12	50

Section A = 50 Marks, Section B = 50 Marks, **Total Marks** = 100 for each paper

UNIVERSITY PRACTICAL EXAMINATION PATTERN

Subjects	Practical	Viva	Total
Ophthalmology	70	30	100

Passing criteria for the University Final Examination

Either Theory minimum 40% and Practical Minimum 60% = Aggregate 50%

Or Theory minimum 60% and Practical Minimum 40% = Aggregate 50%

OTORHINOLARYNGOLOGY (ENT)

OTORHINOLARYNGOLOGY (ENT)

a. Competencies:

The learner must demonstrate:

- Knowledge of the common Otorhinolaryngological (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 & emergencies.
- Adopt the rational use of commonly used drugs keeping in mind their adverse reactions.
- Suggest common investigative procedures & their interpretation.

c. Skills: At the end of the course the student shall be able to

- Examination & Diagnose common ENT problems including pre-malignant & Malignant disorders of the Head & Neck.
- Manage ENT problems at first level of care & 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 tracheotomy, endoscopy & 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 towards other disciplines especially, neurosciences, ophthalmology & general surgery.

OTORHINOLARYNGOLOGY (ENT) (CODE: EN)

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
OTORHINOLARYNGOLOGY (ENT)									
Topic: Anatomy and Physiology of ear, nose, throat, head & neck Number of competencies : (02) Number of procedures that require certification : (NIL)									
EN1.1	Describe the Anatomy & physiology of ear, nose, throat, head & neck	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	1	Human Anatomy	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN1.2	Describe the pathophysiology of common diseases in ENT	K	KH	Y	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce/ Skill assessment	1	Pathology	
Topic: Clinical Skills Number of competencies: (15) Number of procedures that require certification : (NIL)									
EN2.1	Elicit document and present an appropriate history in a patient presenting with an ENT complaint	K/S/A/C	SH	Y	Lecture, Small group discussion, Demonstrati on	Skill assessment	3		
EN2.2	Demonstrate the correct use of a headlamp in the examination of the ear, nose and throat	S	SH	Y	DOAP session	Skill assessment / OSCE	3		
EN2.3	Demonstrate the correct technique of examination of the ear including Otoscopy	K/S/A	SH	Y	DOAP session, Bedside clinic	Skill assessment / OSCE	3		
EN2.4	Demonstrate the correct technique of performance and interpret tuning fork tests	K/S/A	SH	Y	DOAP session, Bedside clinic	Skill assessment / OSCE	3		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN2.5	Demonstrate the correct technique of examination of the nose & paranasal sinuses including the use of nasal speculum	S	SH	Y	DOAP session, Bedside clinic	Skill assessment / OSCE	3		
EN2.6	Demonstrate the correct technique of examining the throat including the use of a tongue depressor	S	SH	Y	DOAP session, Bedside clinic	Skill assessment / OSCE	3		
EN2.7	Demonstrate the correct technique of examination of neck including elicitation of laryngeal crepitus	S	SH	Y	DOAP session, Bedside clinic	Skill assessment	3		
EN2.8	Demonstrate the correct technique to perform and interpret pure tone audiogram & impedance audiogram	K/S	SH	Y	DOAP session, Bedside clinic	Skill assessment	5		
EN2.9	Choose correctly and interpret radiological, microbiological & histological investigations relevant to the ENT disorders	K/S	SH	Y	Lecture, Small group discussion, DOAP session	Written/ Viva voce/ Skill assessment	4		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN2.10	Identify and describe the use of common instruments used in ENT surgery	K	SH	Y	DOAP session, Bedside clinic	Skill assessment	3		
EN2.11	Describe and identify by clinical examination malignant & pre-malignant ENT diseases	K/S	SH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	4		
EN2.12	Counsel and administer informed consent to patients and their families in a simulated environment	S/A/C	SH	Y	DOAP session, Bedside clinic	Skill assessment	2		
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)	K/S/A	SH	Y	DOAP session, Bedside clinic	Skill assessment	5		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN2.14	Demonstrate the correct technique to instilling topical medications into the ear, nose and throat in a simulated environment	K/S	SH	Y	DOAP session, Bedside clinic	Skill assessment / OSCE	2		
EN2.15	Describe the national programs for prevention of deafness, cancer, noise & environmental pollution	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce			PSM
Topic: Diagnostic and Therapeutic procedures in ENT Number of competencies:(06) Number of procedures that require certification:(NIL)									
EN3.1	Observe and describe the indications for and steps involved in the performance of Otomicroscopic examination in a simulated environment	S	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce	1		
EN3.2	Observe and describe the indications for and steps involved in the performance of diagnostic nasal Endoscopy	S	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN3.3	Observe and describe the indications for and steps involved in the performance of Rigid / Flexible Laryngoscopy	K	KH	N	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce	1		
EN3.4	Observe and describe the indications for and steps involved in the removal of foreign bodies from ear, nose & throat	K	KH	N	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce	1		
EN3.5	Observe and describe the indications for and steps involved in the surgical procedures in ear, nose & throat	K	KH	N	Lecture, small group discussion, Demonstrati on	Written/ Viva voce	1		
EN3.6	Observe and describe the indications for and steps involved in the skills of emergency procedures in ear, nose & throat	K	KH	N	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce	1	Emergenc y Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Management of diseases of ear, nose & throat Number of competencies: (53) Number of procedures that require 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 Otagia	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	1		
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	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	1		
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	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	K/S/A	SH	Y	Clinical, Demonstration	Written/ Viva voce/ Skill assessment	1		
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	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	1		
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	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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 CSOM	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	2		
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	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	2		
EN4.9	Demonstrate the correct technique for syringing wax from the ear in a simulated environment	S	SH	Y	DOAP session	Skill assessment	1		
EN4.10	Observe and describe the indications for and steps involved in myringotomy and myringoplasty	S	KH	Y	DOAP session	Written/ Viva voce	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.11	Enumerate the indications describe the steps and observe a mastoidectomy	K/S	KH	Y	DOAP session	Written/ Viva voce	1		
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	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	3		
EN4.13	Describe the clinical features, principles of investigations and management of Otosclerosis	K	KH	Y	Lecture, Small group discussion; Demonstration	Written/ Viva voce/ Skill assessment	1		
EN4.14	Describe the clinical features, principles of investigations and management of Sudden Sensorineural Hearing Loss	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.15	Describe the clinical principles of features, investigations and management of Noise Induced Hearing Loss	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	1		
EN4.16	Observe and describe the indications for and steps involved in the performance of pure tone audiometry	S	KH	Y	DOAP session	Written/ Viva	1		
EN4.17	Enumerate the indications and of an audiogram interpret the results	S	SH	Y	DOAP session	Skill assessment	3		
EN4.18	Describe the clinical features, and principles of investigations management of Facial Nerve palsy	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	1		
EN4.19	Describe the clinical features, and principles of investigations management of Vertigo	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	2		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.20	Describe the clinical features, and principles of investigations management of Meniere's Disease	K	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	2		
EN4.21	Describe the clinical features, and principles of investigations management of Tinnitus	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	2		
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 squamosal type of Nasal Obstruction	K/S	SH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	2		
EN4.23	Describe the clinical features, investigations and principles of management of DNS	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.24	Enumerate the indications observe and describe the steps in a septoplasty	S	KH	Y	DOAP session	Written/ Viva voce	1		
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 squamosal type of Nasal Polyps	K/S	SH	Y	Lecture, Small group discussion, DOAP Session, Bedside clinic	Written/ Viva voce/ Skill assessment	1		
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 squamosal type of Adenoids	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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 squamosal type of Allergic Rhinitis	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	1		
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 squamosal type of Vasomotor Rhinitis	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	1		
EN4.29	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 Acute & Chronic Rhinitis	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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 squamosal type of Epistaxis	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	2		
EN4.31	Describe the clinical features, investigations and principles of management of trauma to the face & neck	K/S	KH	N	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce	2		
EN4.32	Describe the clinical features, investigations and principles of management of nasopharyngeal Angiofibroma	K	KH	Y	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.33	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management squamosal type of Acute & Chronic Sinusitis	K/S	SH	Y	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce/ Skill assessment	1		
EN4.34	Describe the clinical and Principles of features, investigations management of Tumors of Maxilla	K	KH	Y	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce	2		
EN4.35	Describe the clinical and Principles of features, investigations management of Tumors of Nasopharynx	K	KH	N	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce/ Skill assessment	1		
EN4.36	Describe the clinical and Principles of features, investigations management of diseases of the Salivary glands	K	KH	N	Lecture, Small group discussion, Demonstrati on	Written/ Viva voce/ Skill assessment	2		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.37	Describe the clinical and Principles of features, investigations management of Ludwig's angina	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	1		
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	K/S	SH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	1		
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 squamosal type of Acute & Chronic Tonsillitis	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment			
EN4.40	Observe and describe the indications for and steps involved in a tonsillectomy / adenoidectomy	S	KH	Y	DOAP session	Written/ Viva voce	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.41	Describe the clinical features, investigations and principles of management of Acute & chronic abscesses in relation to Pharynx	K/S	KH	Y	Lecture, Small group discussion Demonstration	Written/ Viva voce	1		
EN4.42	Elicit, document and present a correct history, demonstrate and describe the clinical features, investigations and choose the correct describe the voice of principles of management of hoarsene	K/S	SH	Y	Lecture, Small group discussion, DOAP session, Bedside clinic	Written/ Viva voce/ Skill assessment	1		
EN4.43	Describe the clinical features, and principles of investigations management of Acute & Chronic Laryngitis	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce	1		
EN4.44	Describe the clinical features, and principles of investigations management of Benign lesions of the vocal cord	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
EN4.45	Describe the clinical features and principles of investigations management of Vocal cord palsy	K	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	1		
EN4.46	Describe the clinical features, of investigations and principles management of Malignancy of the Larynx and Hypopharynx	K	KH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	1		
EN4.47	Describe the clinical features, of investigations and principles management of Stridor	K	KH	Y	Lecture, Small group discussion Demonstration	Written/ Viva voce/ Skill assessment	1		
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	S	SH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	1		

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	SH	Y	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	1		
EN4.50	Observe and describe the indications for and steps involved in tracheostomy	S	KH	Y	DOAP session	Written/ Viva voce	2		
EN4.51	Observe and describe the care of the patient with a tracheostomy	S	KH	Y	DOAP session	Written/ Viva voce	1		
EN4.52	Describe the Clinical features, Investigations and principles of management of diseases of Oesophagus	K	ENT	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	1		
EN4.53	Describe the clinical features, investigations and principles of management of HIV manifestations of the ENT	K	KH	N	Lecture, Small group discussion, Demonstration	Written/ Viva voce/ Skill assessment	2	General Medicine	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
<p>Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation</p>									

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
INTEGRATION									
HUMAN ANATOMY									
AN36.1	Describe the (1) morphology, relations, blood supply and applied anatomy of palatine tonsil and (2) composition of soft palate	K	KH	Y	Lecture	Written	1	ENT	
AN36.2	Describe the components and functions of waldeyer's lymphatic ring	K	KH	Y	Lecture	Written	1	ENT	
AN36.3	Describe the boundaries and clinical significance of pyriform fossa	K	KH	N	Lecture	Written	1	ENT	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN36.4	Describe the anatomical basis of tonsillitis, tonsillectomy, adenoids and peri-tonsillar abscess	K	KH	N	Lecture	Written	1	ENT	
AN36.5	Describe the clinical significance of Killian's dehiscence	K	KH	N	Lecture	Written	1	ENT	
AN37.1	Describe & demonstrate features of nasal septum, lateral wall of nose, their blood supply and nerve supply	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment	1	ENT	
AN37.2	Describe location and functional anatomy of paranasal sinuses	K	KH	Y	Lecture	Written	1	ENT	
AN37.3	Describe anatomical basis of sinusitis & maxillary sinus tumours	K	KH	N	Lecture	Written	1	ENT	
AN38.1	Describe the morphology, identify structure of the wall, nerve supply, blood supply and actions of intrinsic and extrinsic muscles of the larynx	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment	1	ENT	

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	Suggested Assessmen t method	Number required to certify P	Vertical Integration	Horizontal Integration
AN38.2	Describe the anatomical aspects of laryngitis	K	KH	N	Lecture	Written	1	ENT	
AN38.3	Describe anatomical basis of recurrent laryngeal nerve injury	K	KH	N	Lecture	Written	1	ENT	
AN39.2	Explain the anatomical basis of hypoglossal nerve palsy	K	KH	N	Lecture	Written	1	ENT	
AN40.1	Describe & identify the parts, blood supply and nerve supply of external ear	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment	1	ENT	
AN40.2	Describe & demonstrate the boundaries, contents, relations and functional anatomy of middle ear and auditory tube	K/S	SH	Y	Practical, Lecture, Small group discussion, DOAP session	Written/ Viva voce/ skill assessment	1	ENT	
AN40.3	Describe the features of internal ear	K	KH	N	Lecture	Written	1	ENT	
AN40.4	Explain anatomical basis of otitis externa and otitis media	K	KH	N	Lecture	Written	1	ENT	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
AN40.5	Explain anatomical basis of myringotomy	K	KH	N	Lecture	Written	1	ENT	
PHYSIOLOGY									
PY10.13	Describe and discuss perception of smell and taste sensation	K	KH	Y	Lecture, Small group discussion	Written / Viva voce	1	ENT	
PY10.15	Describe and discuss functional anatomy of ear and auditory pathways & physiology of hearing	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	1	ENT	
PY10.16	Describe and discuss pathophysiology of deafness. Describe hearing tests	K	KH	Y	Lecture, Small group discussion	Written / Viva voce	1	ENT	
PY10.20	Demonstrate (i) hearing (ii) testing for smell and (iii) taste sensation in volunteer/ simulated environment	S	P	Y	DOAP sessions	Skill assessment/ Viva voce	1 each x 3	ENT, Ophthalmology	
COMMUNITY MEDICINE									
CM3.1	Describe the health hazards of air, water, noise, radiation and pollution.	K	KH	Y	Lecture, small group discussion	Written/ Viva voce	1	General Medicine, ENT	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
DENTISTRY									
DE4.1	Discuss the prevalence of oral cancer and enumerate the common types of cancer that can affect tissues of the oral cavity	K	K	N	Lecture	Viva voce	1	Pathology	ENT
DE4.2	Discuss the role of etiological factors in the formation of precancerous / cancerous lesions	K	KH	Y	Lecture, Small group discussion	Viva voce	1	Pathology	ENT
DE4.3	Identify potential pre-cancerous / cancerous lesions	S	SH	N	Observation , Bed side clinics	Skill assessment	1	Pathology	ENT
DE4.4	Counsel patients to risks of oral cancer with respect to tobacco, smoking, alcohol and other causative factors	A/C	SH	Y	DOAP session	Document in Log book	2	Pathology	ENT
GENERAL MEDICINE									
IM24.17	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	2		ENT

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PEDIATRICS									
PE14.2	Discuss the risk factors, clinical features, Diagnosis and management of Kerosene ingestion	K	KH	N	Lecture, Small group discussion	Written/ Viva voce	1	ENT	
PE28.1	Discuss the etio-pathogenesis, clinical features and management of Naso pharyngitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	1	ENT	
PE28.2	Discuss the etio-pathogenesis of Pharyngo Tonsillitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	1	ENT	
PE28.3	Discuss the clinical features and management of Pharyngo Tonsillitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	1	ENT	
PE28.4	Discuss the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	1	ENT	
PE28.5	Discuss the etio-pathogenesis, clinical features and management of Epiglottitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	1	ENT	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
PE28.6	Discuss the etio-pathogenesis, clinical features and management of Acute laryngo- trachea-bronchitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	1	ENT	
PE28.7	Discuss the etiology, clinical features and management of Stridor in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	1	ENT	
PE28.8	Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	1	ENT	
PE28.9	Elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor	S	SH	Y	Bedside clinics, skill lab	Skill Assessment	1	ENT	
PE28.10	Perform otoscopic examination of the ear	S	SH	Y	DOAP session	Skill Assessment	3	ENT	
PE28.11	Perform throat examination using tongue depressor	S	SH	Y	DOAP session	Skill Assessment	2	ENT	
PE28.12	Perform examination of the nose	S	P	Y	DOAP session	Skill Assessment	2	ENT	

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	Suggested Assessment method	Number required to certify P	Vertical Integration	Horizontal Integration
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	S	P	Y	Bedside clinics, Small group discussion	Skills Assessment	3	ENT, Radiodiagnosis	
PE31.1	Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children	K	KH	Y	Lecture Small group discussion	Written/ Viva voce	1	ENT	
PE31.3	Describe the etio-pathogenesis, clinical features and management of Atopic dermatitis in children	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	1	ENT	
GENERAL SURGERY									
SU20.1	Describe etiopathogenesis of oral cancer, symptoms and signs of pharyngeal cancer. Enumerate the appropriate investigations and discuss the principles of treatment.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	2	ENT	

Modifications are made as per the National Medical Commission (Under Graduate Medical Education Board, 2023) Notification No. U. 14021/8/2023-UGMEB dated 1st August 2023

1. Duration of Clinical Posting

Sr. No.	Year	Revision
1	Second Professional	-
2	Third Professional MBBS Part I	3 weeks
3	Third Professional MBBS Part II	4 weeks

2.Theory

2A. Teaching hours

		Revision
Second Professional	Lecture	-
	SGT/Tutorial Hours	-
	SDL	-
	Total Hours	-

Third Professional MBBS Part I	Lecture	15
	SGT/Tutorial Hours	20
	SDL	10
	Total Hours	45
Third Professional MBBS Part II	Lecture	15
	SGT/Tutorial Hours	25
	SDL	15
	Total Hours	55

UNIVERSITY THEORY EXAMINATION PATTERN

Paper I		Section A and B	Marks – 100	Time : 3 Hrs.
Type of Question	Marks per question	No. of questions	Total marks	
One sentence answer	1	5 out of 6	5	
LAQ – PB (Compulsory)	10	1	10	
LAQ (structured)	10	1 out of 2	10	
Short notes	5	5 out of 6	25	
	Total	12	50	

Section A = 50 Marks, Section B = 50 Marks, **Total Marks = 100** for each paper

UNIVERSITY PRACTICAL EXAMINATION PATTERN

Subjects	Practical	Viva	Total
Otorhinolaryngology (ENT)	70	30	100

Passing criteria for the University Final Examination

Either Theory minimum 40% and Practical Minimum 60% = Aggregate 50%

Or Theory minimum 60% and Practical Minimum 40% = Aggregate 50%