

MBBS 2019: Regulations & Syllabus

**PHASE III PART I - CBME SYLLABUS
(THEORY AND CLINICALS)**

COMPILED BY : MEDICAL EDUCATION UNIT

VOLUME 2

MBBS 2019: Regulations & Syllabus
Phase III Part I - CBME Syllabus
(Theory and Clinicals)
Compiled by : Medical Education Unit

VOLUME 2

Subjects	Page No
General Medicine	03
General Surgery	49
OBG	79
Paediatrics	125
Orthopaedics	197
Psychiatry	227
Dermatology	255
Anaesthesia	265
Radiology	277
Respiratory Medicine	289

University Exam at the end of Phase III Part II

GENERAL MEDICINE

PREAMBLE

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.

Excerpts from GMER- Regulations on Graduate Medical Education (Amendment), 2019 and UG Curriculum Volume-2 have been utilized in preparing this syllabus document for MBBS Third Professional (Part I). Alignment / Integration between topics & subjects has been attempted.

As per GMER 2019, Table 2, page.no.68: Distribution of subjects by Professional Phase. Third Professional MBBS Part I (13 months) includes the following:

- General Medicine, General Surgery, Obstetrics & Gynecology, Pediatrics, Orthopedics, Dermatology, Psychiatry, Otorhinolaryngology, Ophthalmology, Community Medicine, Forensic Medicine and Toxicology, Respiratory medicine, Radiodiagnosis & Radiotherapy, Anesthesiology
- Clinical subjects /postings
- Attitude, Ethics & Communication Module (AETCOM)

As per GMER 2019, table 9, page.no.75 - Focus of Learner - Doctor Program:

(History taking, physical examination, assessment of change in clinical status, communication and patient education)

Year 3: All of the above and choice of investigations, basic procedures and continuity of care

Keeping the above format as guiding framework, the department of General Medicine plans to continue Clinical Medicine to MBBS students

TABLE OF CONTENTS

Sl. No.	Content
1	Goal and Objectives
2	Terms and Teaching Guidelines
3	Syllabus at a glance; teaching hours
4	Competencies, Specific Learning Objectives, Teaching learning and Assessment methods
5	Assessment
6	Annexures
	Annexure I- Recommended Books
	Annexure II- Model Question paper

2. GOAL AND OBJECTIVES

Syllabus in Gen.Medicine for Third Professional MBBS Part I (13 months)

GOAL:

The broad goal of the teaching of Third Professional MBBS Part I,undergraduate students in General Medicine is to continue with Clinical Medicine so that students are oriented further, towards clinical medicine and go through a smooth transition towards clinical side

OBJECTIVES:

A) KNOWLEDGE

At the end of the Third Professional MBBS Part I, undergraduate students in General Medicine should be able to describe a few more diseases and their work-up & treatment pertaining to selected topics (see below) in General Medicine

B) SKILLS (As per UG Curriculum document Vol2, page.no.18: 3.1.5-8)

At the end of Third Professional MBBS Part I, the student should be able to:-

- 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

C) Attitude (Affective)

Communicate effectively with peers and teachers in various teachinglearning activities in a manner that encourages participation and shared decision-making.

Demonstrate ability to behave &communicate with sensitivity and due respect towards patients and their relatives during history taking & physical examination

D) INTEGRATION

At the end of Third Professional MBBS-Part I (13 months)training he/she should be able to integrate the causes of disease and relationship of different etiological factors (social, economic and environmental) and that contribute to the natural history of diseases most prevalent in India and describe a few more diseases and their work-up & treatment pertaining to selected topics (see below) in General Medicine and perform a physical examination that is contextual

OUTCOME

At the end of Third Professional MBBS-Part I (13 months),Students would be oriented further, towards clinical medicine, patients& diseases and would have a smooth transition further, towards clinical side

As per GMER 2019, page.no.77: 10.5. Third Professional (Part I) - 10.5.1. 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:

1. Demonstrate understanding of the patho-physiologic basis, epidemiological profile, signs and symptoms of disease and their investigation and management,
2. Competently interview and examine an adult patient and make a clinical diagnosis,
3. Appropriately order and interpret laboratory tests,
4. Initiate appropriate cost-effective treatment based on an understanding of the rational drug prescriptions, medical interventions required and preventive measures,
5. Follow up of patients with medical problems and refer whenever required,
6. Communicate effectively, educate and counsel the patient and family,
7. Manage common medical emergencies and refer when required,
8. Independently perform common medical procedures safely and understand patient safety issues.

(b) 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

As per GMER 2019, table 9, page.no.75 - Focus of Learner - Doctor Program:

(History taking, physical examination, assessment of change in clinical status, communication and patient education and choice of investigations, basic procedures and continuity of care)

As per GMER 2019, page.no.74: The learner will function as a part of the health care team with the following responsibilities:

- (i) Be part of the unit's outpatient services on admission days,
- (ii) Remain with the admission unit until 6 PM except during designated class hours,
- (iii) Be assigned patients admitted during each admission day for whom he/she will undertake responsibility, under the supervision of a senior resident or faculty member,
- (iv) Participate in the unit rounds on its admission day and will present the assigned patients to the supervising physician,

- (v) Follow the patient's progress throughout the hospital stay until discharge,
- (vi) Participate, under supervision, in procedures of assigned patients (according to responsibilities outlined above in first 3 lines of this page, as per GMER 2019- table 9),
- (vii) Participate in unit rounds on at least one other day of the week excluding the admission day,
- (viii) Discuss ethical and other humanitarian issues during unit rounds,
- (ix) Attend all scheduled classes and educational activities,
- (x) Document his/her observations in a prescribed log book / case record.

(d) No learner will be given independent charge of the patient

3. TERMS AND TEACHING GUIDELINES

1. LECTURE

Is a teaching-learning method which includes traditional and interactive sessions involving a large group.

2. Seminar /Tutorial:

An interactive teaching - learning session wherein students participate in the discussion

3. SMALL GROUP DISCUSSION(BEDSIDE CLINICS/OPD Teaching as applied to CLINICAL POSTINGS in GENERAL MEDICINE)

Is an instructional method involving small groups of students in an appropriate learning context. (ward/oppd teaching as applied to CLINICAL POSTINGS in GENERAL MEDICINE)

The clinical postings in the third professional part I shall be 18 hours per week X 4 weeks (**3 hrs per day from Monday to Saturday as per GMER 2019, table no.6&8; page.no.70 & 71**) covering History taking, Symptomatology, GPE & Systemic examination pertaining to all major systems & disorders

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

Provides learners with experience in longitudinal patient care being part of the health care team with Hands-on care of patients in outpatient and inpatient setting. (as per GMER 2019, 9.5.1-2, page.no.74).

4. CORE

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

5. NON – CORE

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

Syllabus at a glance Gen. Medicine for Third Professional MBBS Part I (13

months)Number of teaching hours:

<u>Teaching method</u>	<u>Hours</u>
Lecture	25 (1hr X 25)
Seminars /Tutorials /Integrated-Teaching	35
Self-directed learning	05
Total	65
Clinical postings	72 (18 hours per week X 4 weeks - 3hrs per day from Monday to Saturday)

LECTURE CLASSES

Sl. No	Topic	Number of competencies	Lecture (Hrs)
1	Obesity	09	04
2	Nutrition & Vitamin deficiencies	04	03
3	Common malignancies	12	05
4	Mineral, Fluid Electrolyte & Acid base Disorders	12	05
5	Envenomation	05	03
6	Poisoning	06	05
Total			25

Seminars /Tutorials /Integrated Teaching – 35 hrs; covering topics (other than the above didactic lectures) which include interactive teaching - learning sessions wherein students participate actively in the discussion including topics which require integration with AETCOM modules

Self-directed learning – 5 hrs; including important topics of previous phase which need revision (power point presentation by students moderated by a teacher)

Clinical postings - 18 hours per week X 4 weeks - 3 hrs per day from Monday to Saturday

Sl No	Topic
1	CVS
2	RS
3	Abdomen
4	CNS
5	Locomotor system/Rheumatology
6	Miscellaneous (endocrine.infections Etc.)
7	other topics of III MBBS Part I
Total - 72 Hrs	

There will be one clinical internal assessment at the end of clinical postings.

4. COMPETENCIES, SPECIFIC LEARNING OBJECTIVES, TEACHING LEARNING & ASSESSMENT METHODS

(CODE: IM; Competencies have been combined if they are similar)

Topic: 1.Obesity Number of competencies: (9) Number of procedures that require certification: (NIL)								
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Do- main	Mill- ers pyr- amid level	core	T&L Methods	Assess- ment meth- ods	Integra- tion	
IM14.1	Define and measure obesity as it relates to the Indian population	K	KH	Y	Lecture	short note/ viva voce	Pathology	
	1. Define obesity 2. Classify obesity 3. Discuss Indian guidelines in obesity							

IM14.2	Describe and discuss the etiology of obesity including modifiable and non-modifiable risk factors and secondary causes	K	KH	Y	Lecture	short note/ viva voce	Pathology
	1. Discuss the etiology of obesity 2. Enumerate modifiable risk factors of obesity 3. Enumerate non modifiable risk factors of obesity 4. Enumerate secondary causes of obesity						
IM14.3	Describe and discuss the monogenic forms of obesity	K	KH	N	Lecture	short note/ viva voce	Pathology
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	KH	Y	Lecture	short note/ viva voce	Community medicine
	1. Discuss role of environmental factors on the incidence of obesity 2. Discuss role of physical activity on the incidence of obesity						
IM 14.5	Describe and discuss the natural history of obesity and its complications	K	KH	Y	Lecture	short note/ viva voce	Pathology
	1. Pathogenesis of obesity 2. Natural history and pathological consequences of obesity 3. Complications of obesity on various organ systems						

IM14.10	Describe the indications and interpret the results of tests for secondary causes of obesity	K	KH	Y	Lecture	short note/ viva voce	
	<ol style="list-style-type: none"> 1. Enumerate the diagnostic tests to rule out secondary causes of obesity 2. List the indications to send the above tests 3. Discuss the interpretation of the above test results 						
IM14.13	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for obesity	K	KH	Y	Lecture	short note/ viva voce	Pharmacology
	<ol style="list-style-type: none"> 1. Enumerate the indications of pharmacotherapy in treatment of obesity 2. List the drugs used in treatment of obesity 3. Discuss the mechanism of action , pharmacokinetics and treatment regimen of the above drugs 4. List the adverse effects and contraindications of each of the drugs 						
IM14.14	Describe and enumerate the indications and side effects of bariatric surgery	K	KH	Y	Lecture	Short essay/ MCQs	General Surgery
	<ol style="list-style-type: none"> 1. What is Bariatric surgery? 2. Enumerate the indications of bariatric surgery 3. List out the various options under bariatric surgery 4. Describe each of the above options along with its side effects 						

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	KH	Y	Lecture	Short essay/ MCQs	Community medicine
	<ol style="list-style-type: none"> 1. List the measures to be taken to prevent obesity and promote healthy lifestyle 2. Describe and educate patients , public and other health care workers 						

Topic: Nutritional and Vitamin Deficiencies

Number of competencies: (4)

Number of procedures that require certification: (NIL)

Number	Competency & SLOs (At the end of the session, student shall be able to:)	Do- main	Mill- ers pyr- amid level	core	T&L Meth- ods	Assess- ment meth- ods	Integra- tion
IM 23.1	Discuss and describe the methods of nutritional assessment in an adult and calculation of caloric requirements during illnesses 23.1.1. Interpret nutritional assessment. Describe the calorie requirements of normal person. Describe& calculate caloric requirement during illness.	K	KH	Y	Lecture	short note/ viva voce	
IM 23.2	Discuss and describe the causes and consequences of protein caloric malnutrition in the hospital 23.2.1 Describe protein calorie malnutrition in hospitalized patient.	K	KH	Y	Lecture	short note/ viva voce	

IM 23.4	Enumerate the indications for enteral and parenteral nutrition in critically ill patients	K	KH	Y	Lecture	short note/viva voce	
	Define enteral nutrition&. parenteral Nutrition & discuss their methods Enumerate the indications for enteral and parenteral nutrition in critically ill patients						
IM 23.3	Discuss and describe the aetiology, causes, clinical manifestations, complications, diagnosis and management of common vitamin deficiencies	K	KH	Y	Lecture	Long/Short essay/MCQs	Biochemistry
	23.3.1. Describe vitamin requirement. 23.3.2. Discuss etiology, clinical manifestations, complications, diagnosis and management of common vitamin deficiencies.						

Topic: Common malignancies Number of competencies: (12)		Number of procedures that require certification: (NIL)						
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Do-main	Mill-ers pyr- amid level	core	T&L Meth- ods	Assess- ment meth- ods	Integra- tion	
IM 13.1	Describe the clinical epidemiology and inherited & modifiable risk factors for common malignancies in India	K	KH	Y	Lecture	short note/ viva voce	PATHOLOGY, COMMUNITY MEDICINE	
	13.1.1 Enumerate common malignancies in India 13.1.2 Discuss clinical epidemiology of common malignancies Discuss the inherited risk factors of common malignancies in India Discuss the modifiable risk factors of common malignancies in India							
IM 13.2	Describe the genetic basis of selected cancers	K	KH	N	Lecture	short note/ viva voce	PATHOLOGY	
	Discuss the genetic basis of breast cancer Discuss the genetic basis of lung cancer Discuss the genetic basis of cervix cancer Discuss the genetic basis of oral cancer							
IM 13.3	Describe the relationship between infection and cancers	K	KH	Y	Lecture	short note/ viva voce	PATHOLOGY, microbiology	
	Enumerate the infections causing cancer Discuss role of infections in cancer 13.3.3 Discuss the role of vaccines in preventing Cancers							

IM 13.4	Describe the natural history, presentation, course, complications and cause of death for common cancers 13.4.1 Discuss natural history, clinical features, course, complications and cause of death in breast cancer Discuss natural history, clinical features, course, complications and cause of death in lung-cancer Discuss natural history, clinical features, course, complications and cause of death in oral cancer Discuss natural history, clinical features, course, complications and cause of death in cervix-cancer	K KH Y Lecture short note/ viva voce PATHOLOGY
IM 13.5	Describe the common issues encountered in patients at the end of life and principles of management in cancer patients 13.5.1 Discuss the common complications in cancer patients in the end stage Discuss the management of cervix cancer in the end stage Discuss the management of lung cancer in the end stage Discuss the management of breast cancer in the end stage 13.5.5 Discuss the management of oral cancer in the end Stage	

IM 13.6	<p>Describe and distinguish the difference between curative and palliative care in patients with cancer</p> <p>13.6.1 Describe curative care in cancer patients 13. 6. 2 Describe palliative care in cancer patients 13. 6. 3 Differentiate between palliative care and Curative care in cancer patients</p>	K	KH	N	Lecture	short note/ viva voce	
IM 13.11	<p>Order and interpret diagnostic testing based on the clinical diagnosis including CBC and stool occult blood and prostate specific antigen</p>	K	KH	Y	Lecture	short note/ viva voce	
	Investigations in cancer interpreting CBC, stool occult blood and prostate specific antigen						
13.12	<p>Describe the indications and interpret the results of Chest X Ray, mammogram, skin and tissue biopsies and tumor markers used in common cancers</p>	K	KH	Y	Lecture	short note/ viva voce	RADIODIAGNOSIS PATHOLOGY, General Surgery
	<p>Describe indications for chest x-ray and chestx-ray findings in common cancers Describe indications and mammogram findings in common cancers Describe indications of skin biopsies and findings in common cancers Describe indications of Tissue biopsies and their findings in common cancers Enumerate the tumor markers. Describe indications of tumor markers and their interpretation in common cancers</p>						

13.14	<p>Describe the indications for surgery, radiation and chemotherapy for common malignancies</p> <p>Discuss indications of surgery in oral cancer, cervix cancer, lung cancer and breast cancer</p> <p>Discuss indications of radiotherapy in oral cancer, cervix cancer, lung cancer and breast cancer</p> <p>Discuss indications for chemotherapy in oral cancer, cervix cancer, lung cancer and breast cancer</p>	K	KH	Y	Lecture	short note/ viva voce	GENERAL SURGERY, Pharmacology
13.15	<p>Describe the need, tests involved, their utility in the prevention of common malignancies</p> <p>Discuss the preventive measures of common malignancies</p> <p>Discuss the use of common tests in prevention of common malignancies</p>	K	KH	Y	Lecture	short note/ viva voce	PATHOLOGY.
13.17	<p>Describe and enumerate the indications, use, side effects of narcotics in pain alleviation in patients with cancer</p> <p>Enumerate the narcotic medications available to treat pain</p> <p>Enumerate indications of narcotics in cancer patients</p> <p>13.17.3 Enumerate side effects of narcotics in cancer patients</p>	K	KH	Y	Lecture	short note/ viva voce	PHARMACOLOGY ANESTHESIOLOGY
13.19	<p>Describe the therapies used in alleviating suffering in patients at the end of life</p> <p>1.1.1 Discuss the therapy and their role in end of The disease.</p> <p>13.19.2 Discuss the role of rehabilitation and counselling in cancer patient</p>	K	KH	Y	Lecture	short note/ viva voce	

Topic: Mineral, Fluid Electrolyte and Acid base Disorder**Number of competencies: (12)****Number of procedures that require certification: (NIL)**

Number	Competency & SLOs (At the end of the session, student shall be able to:)	Do- main	Mill- ers pyr- amid level	core	T&L Meth- ods	Assess- ment methods	Integration
IM 22.1	Enumerate the causes of hypercalcemia and distinguish the features of PTH vs non PTH mediated hypercalcemia 22.1.1. List causes of hypercalcemia. 22.1.2 .Describe normal calcium level. 3. Distinguish features of PTH vs non PTH mediated hypercalcemia.	K	KH	N	Lecture	Short es- say/MCQs	PATHOLOGY
IM 22.2	Describe the etiology, clinical manifestations, diagnosis and clinical approach to primary hyperparathyroidism	K	KH	N	Lecture	Short es- say/MCQs	PATHOLOGY PHYSIOLO- GY
IM 22.3	Describe the approach to the management of hypercalcemia	K	KH	N	Lecture	Short es- say/MCQs	PATHOLOGY
IM 22.4	Enumerate the components and describe the genetic basis of the multiple endocrine neoplasia syndrome	K	KH	N	Lecture	Short es- say/MCQs	PATHOLOGY
IM 22.5 IM 22.6	Enumerate the causes and describe the clinical & lab features and the correct approach to the diagnosis and management of the patient with hyponatremia 1. Define hyponatremia. 2.Describe its causes 3. Describe its clinical features. 4.Describe its lab features 5.Describe the correct approach to its diagnosis & Management	K	KH	Y	Lecture	Short es- say/MCQs	

IM 22.7	<p>Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hypokalemia</p> <p>22.7.1. Define hypokalemia. 2. Describe its causes 3. Describe its clinical features. 4. Describe its lab features 5. Describe the correct approach to its diagnosis & Management</p>	K	KH	Y	Lecture	Short essay/MCQs	
IM 22.8	<p>Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hyperkalemia</p> <p>22.8.1. Define hyperkalemia. 2. Describe its causes 3. Describe its clinical features. 4. Describe its lab features 5. Describe the correct approach to its diagnosis & Management</p>	K	KH	Y	Lecture	Short essay/MCQs	
IM 22.9	<p>Enumerate the causes and describe the clinical and laboratory features of metabolic acidosis</p> <p>Define metabolic acidosis. enumerate the causes Describe clinical & lab features. Describe its management.</p>	K	KH	N	Lecture	Short essay/MCQs	
IM 22.10	<p>Enumerate the causes and describe the clinical and laboratory features of metabolic alkalosis</p> <p>Define metabolic alkalosis. 22.10.1 enumerate the causes 22.10.2. Describe clinical & lab features. Describe its management.</p>	K	KH	N	Lecture	Short essay/MCQs	

IM 22.11	Enumerate the causes and describe the clinical and laboratory features of respiratory acidosis	K	KH	N	Lecture	Short es- say/MCQs	
	Define respiratory acidosis. 22.11.1.enumerate the causes 22.11.2. Describe clinical & lab features.Describe its management.						
IM 22.12	Enumerate the causes and describe the clinical and laboratory features of respiratory alkalosis	K	KH	N	Lecture	Short es- say/MCQs	
	Define respiratory alkalosis. 22.12.1.enumerate the causes 22.12.2. Describe clinical & lab features.Describe its management.						
IM 22.13	Identify the underlying acid based disorder based on an ABG report and clinical situation	S	KH	N	Lecture	MCQs	
	ABG interpretation session						

Topic: Envenomation Number of competencies:(09)		Number of procedures that require certification :(NIL)						
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Do- main	Mill- ers pyr- amid level	core	T&L Meth- ods	Assess- ment methods	Integration	
IM20.1		K	KH	Y	Lecture	Written/ Viva voce	Forensic Medicine,	
20.1.1. Describe poisonous snakes. 20.1.2 Differentiate between Cobra bite and Viper bite.								

IM20.3	Describe the initial approach to the stabilization of the patient who presents with snake bite	K	KH	Y	Lecture	Written/ Viva voce	Forensic Medicine
IM20.7	Enumerate the indications and describe the pharmacology, dose, adverse reactions, hypersensitivity reactions of anti-snake venom Clinical features, Inv & management of snake bite Describe pharmacology, dose, adverse reactions & hypersensitivity reaction of ASV. Describe management of hypersensitivity Reaction	K	KH	Y	Lecture	Written/ Viva voce	Pharmacology
IM20.8	Describe the diagnosis, initial approach, stabilization and therapy of scorpion envenomation 20.8.1. Describe scorpion bite. List signs and symptoms. management of scorpion envenomation	K	KH	N	Lecture	Written/ Viva voce	Pharmacology
IM20.9	Describe the diagnosis initial approach stabilization and therapy of bee sting allergy Describe bee sting allergy. Describe clinical manifestations & management of bee sting	K	KH	N	Lecture	Written/ Viva voce	Pharmacology

Topic: Poisoning Number of competencies:(06)		Number of procedures that require certification :(NIL)						
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Do- main	Mill- ers pyr- amid level	core	T&L Meth- ods	Assess- ment methods	Integra- tion	

IM 21.1	Describe the initial approach to the stabilization of the patient who presents with poisoning	K	KH	Y	Lecture	Written/ Viva voce	
	Describe initial stabilization of patients with poisoning. Discuss important steps that you should take in management of poisoning						
IM 21.2	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	Written/ Viva voce	Forensic Medicine
IM 21.3	Enumerate the common corrosives used in your area and describe their toxicology, clinical features, prognosis and approach to therapy	K	KH	Y	Lecture	Written/ Viva voce	Forensic Medicine
IM 21.4	Enumerate the commonly observed drug overdose in your area and describe their toxicology, clinical features, prognosis and approach to therapy	K	KH	Y	Lecture	Written/ Viva voce	Forensic Medicine
IM 21.6	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	Written/ Viva voce/ Skill assessment	Forensic Medicine
IM 21.8	Enumerate the indications for psychiatric consultation and describe the precautions to be taken in a patient with suspected suicidal ideation / gesture	K	KH	Y	Lecture	Skill assessment	Forensic Medicine, Psychiatry
	Describe the role of psychiatric consultations especially in suicidal attempt. precautions to be taken in a patient with suicidal ideation/ gesture						

SEMINARS/TUTORIALS/INTEGRATED TEACHING - 35 hrs covering topics (other than the above didactic lectures) which include interactive teaching - learning sessions wherein students participate actively in the discussion including topics which require integration with AETCOM modules

Topics: THE ROLE OF PHYSICIAN IN COMMUNITY& OTHERS(misc.)								
Number of competencies: (42)		Number of procedures that require certification: (NIL)						
Number	Competency & SLOs (At the end of the session, student shall be able to:)	Do- main	Mill- ers pyr- amid level	core	T&L Meth- ods	Assess- ment methods	Integra- tion	
IM 26.1	<p>enumerate and describe professional qualities and roles of a physician</p> <p>Understand the importance of respecting people, healthy or ill, regardless of who they are</p> <p>Understand to promote health as well as treat disease</p> <p>Embrace the power of information and communication technologies to support people with the best available information, while respecting their individual values and preferences</p> <p>Always ask courteous questions, let people talk, and listen to them carefully</p> <p>26.1.5 Give unbiased advice, let people participate actively in all decisions related to their health and health care, assess each situation carefully, and help whatever the situation</p> <p>Use evidence as a tool, not as a determinant of practice; humbly accept death as an important part of life; and help people make the best possible arrangements when death is close</p> <p>Understand the importance of working with other members of the healthcare team</p> <p>26.1.8 Be proactive advocates for their patients, mentors for other health professionals, and ready to learn from others, regardless of their age, role, or status</p>	K	KH	Y	seminar	Short essay/short note/viva voce		

IM 26.2	Describe and discuss the commitment to life-long learning as an important part of physician growth	K	KH	Y	semi-nar	Short es-say/short note/viva voce	
	26.2.1.Understand importance of self-assessment, peer-assessment, evaluation of performance in practice 26.2.1Document practice-based learning and improvement activities 26.2.3.Practice learning at the point of care Understand importance of participation in conventional learning update activities such as professional meetings, journal clubs, or self-study programs						
IM 26.3	Describe and discuss the role of non maleficence as a guiding principle in patient care	K	KH	Y	semi-nar	Short es-say/short note/viva voce	AETCOM
	Define the term 'non- maleficence' as part of medical ethics Understand the steps and precautions to be followed in every procedure to avoid 'maleficence' 26.3.3.Understand and practice codes of medical ethics in society						
IM 26.4	Describe and discuss the role of autonomy and shared responsibility as a guiding principle in patient care	K	KH	Y	semi-nar	Short es-say/short note/viva voce	AETCOM
	26.4.1.Describe autonomy in patient care 26.4.2.Discuss shared responsibility in patient care 26.4.3.Discussing positive implications of autonomy in patient care 26.4.4.Discussing development of respectful, bilateral relationships that enable patients to develop and exercise self-governance skills, both within and beyond health care encounters						

IM 26.5	Describe and discuss the role of beneficence as a guiding principle in patient care <p>Describe and understand the importance of beneficence in patient care Develop skills to have a moral obligation to act in ways which benefit patients in future clinical practice.</p>	K	KH	Y	semi-nar	Short es-say/short note/viva voce	AETCOM
IM 26.6	Describe and discuss the role of a physician in health care system <p>Describe the role of a physician in health care system Discuss the role of a physician in health care system</p>	K	KH	Y	semi-nar	Short es-say/short note/viva voce	
IM 26.7	Describe and discuss the role of justice as a guiding principle in patient care <p>26.7.1.Define justice in patient care 26.7.2.Describe the role of justice as a guiding principle in patient care 26.7.3.Discuss the role of justice as a guiding principle in patient care</p>	K	KH	Y	semi-nar	Short es-say/short note/viva voce	AETCOM
IM 26.8	Identify discuss medicolegal, socioeconomic and ethical issues as it pertains to organ donation <p>Discuss medicolegal issues as it pertains to organ donation Discuss socioeconomic as it pertains to organ donation Discuss ethical issues as it pertains to organ donation</p>	K	KH	Y	semi-nar	Short es-say/short note/viva voce	AETCOM

IM 26.9	Identify, discuss and defend medicolegal, socio-cultural, economic and ethical issues as it pertains to rights, equity and justice in access to health care Identify, discuss and defend medicolegal, issues as it pertains to rights, equity and justice in access to health care Identify, discuss and defend socio-cultural, issues as it pertains to rights, equity and justice in access to health care Identify, discuss and defend economic and ethical issues as it pertains to rights, equity and justice in access to health care	K	KH	Y	seminar	Short essay/short note/viva voce	AETCOM
IM 26.10	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to confidentiality in patient care 26.10.1. Describe confidentiality in patient care 26.10.2. Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to confidentiality in patient care	K	KH	Y	seminar	Short essay/short note/viva voce	AETCOM Forensic medicine
IM 26.11	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to patient autonomy, patient rights and shared responsibility in health care Describe and discuss patient rights in health care Describe and discuss shared responsibility in medical health care 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	seminar	Short essay/short note/viva voce	AETCOM Forensic medicine

IM 26.12	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	semi-nar	Short es- say/short note/viva voce	AETCOM- Forensic medicine
	Describe and discuss surrogate decision making 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						
IM 26.13	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	semi-nar	Short es- say/short note/viva voce	AETCOM- Forensic medicine
IM 26.14	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to research in human subjects	K 	KH	Y	semi-nar	Short es- say/short note/viva voce	AETCOM
	26.14.1. Describe the method of research 26.14.2. Identify medicolegal issues pertaining to research in human subjects 26.14.3. Identify socio- cultural and ethical issues pertaining to research in human subjects 26.14.4. Defend these issues when occurs in relation to research being conducted						

IM 26.15	<p>Identify, discuss and defend, medicolegal, socio-cultural and ethical issues as they pertain to consent for surgical procedures</p>	<p>Identify, discuss and defend, medicolegal issues as they pertain to consent for surgical procedures</p> <p>Identify, discuss and defend socio-cultural issues as they pertain to consent for surgical procedures</p> <p>Identify, discuss and defend ethical issues as they pertain to consent for surgical procedures</p>	K	KH	Y	semi-nar	Short es- say/short note/viva voce	AETCOM General surgery
IM 26.16	<p>Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues as it pertains to the physician patient relationship (including fiduciary duty)</p>	<p>Identify, discuss and defend medicolegal issues as it pertains to the physician patient relationship</p> <p>Identify, discuss and defend socio-cultural issues as it pertains to the physician patient relationship</p> <p>Identify, discuss professional and ethical issues as it pertains to the physician patient relationship</p>	K	KH	Y	semi-nar	Short es- say/short note/viva voce	AETCOM, Forensic Medicine

IM 26.17	Identify, discuss physician's role & responsibility to society and the community that she/ he serves 26.17.1. Identify physician's role and responsibility to society and the community that she/ he serves 26.17.2. discuss and understand physician's role and responsibility to society and the community that she/ he serves	K	KH	Y	seminar	Short essay/short note/viva voce	
IM 26.18	Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues in physician- industry relationships Identify medicolegal, socio-cultural, professional and ethical issues in physician- industry relationships Discuss and defend medicolegal, socio-cultural, professional and ethical issues in physician- industry relationships	K	KH	Y	Seminar	Short essay/short note/viva voce	AETCOM
IM 26.29	Communicate diagnostic and therapeutic options to patient and family in a simulated environment Communicate the diagnosis and therapeutic options to a patient and his family Counsel the patient and their family regarding the course of the disease and the treatment	C	SH	Y	Seminar-role play	Skill assessment	AETCOM

IM 26.30	Communicate care options to patient & family with a terminal illness in a simulated environment 26.30.1.Break the news of terminal illness 26.30.2.Counsel regarding the grave risk and prognosis of the condition 26.30.3Counsel regarding the treatment options including palliative care	A/C	SH	Y	Semi nar- role play	Skill as- essment	AETCOM
IM 26.32	Demonstrate appropriate respect to colleagues in the profession 26.32.1.Behave appropriately and show respect to Colleagues	S(A/C)	SH	N	Semi nar- Role play	Skill as- essment	AETCOM
IM 26.33	Demonstrate an understanding of implications & appropriate procedures &response to be followed in the event of medical errors 26.33.1.Identify medical errors 26.33.2.Understand the implications of a medical error Know the methods to prevent medical error Demonstrate the correct response to a medical error committed by oneself or others 26.33.5.Demonstrate the procedure to be followed after a medical error	S(A/C)	SH	N	Semi nar- Role play	Skill as- essment	AETCOM
IM 26.34	Identify conflicts of interest in patient care and professional relationships and describe the correct response to these conflicts 26.34.1Identify conflicts of interests in patient care 26.34.2Identify conflicts of interests in professional relationship 26.34.3Describe the correct response to the above conflicts	S	SH	Y	Semi nar- Role play	Skill as- essment	AETCOM

IM 26.35	Demonstrate empathy in patient encounters	S(A/C)	SH	Y	Semi-nar-Role play	Skill as- essment	AETCOM
	26.35.1.Demonstrate empathy in patient encounters						
IM 26.36	Demonstrate ability to balance personal and professional priorities	S	SH	N	Semi-nar-Role play	Skill as- essment	AETCOM
	26.36.1.Balance between personal and professional priorities						
IM 26.37	Demonstrate ability to manage time appropriately	S	SH	Y	Semi-nar	Skill as- essment	AETCOM
IM 26.38	Demonstrate ability to form and function in appropriate professional networks	S	SH	N	Semi-nar	Skill as- essment	AETCOM
	Demonstrate ability to form a professional network Demonstrate ability to function in an appropriate professional network						
IM 26.39	Demonstrate ability to pursue and seek career advancement	S	SH	N	Semi-nar	Skill as- essment	AETCOM
	26.39.1.Identify career advancement opportunities 26.39.2Demonstrate ability to pursue and seek career advancement						
IM 26.40	Demonstrate ability to follow risk management and medical error reduction practices where appropriate	S (A/C)	SH	N	Semi-nar-Role play	Skill as- essment	AETCOM
	Enumerate risk management and medical error reduction practices in a given simulated environment Demonstrate risk management practice with examples Demonstrate ability to follow medical error reduction practices in a simulated environment						

IM 26.41	Demonstrate ability to work in a mentoring relationship with junior colleagues	S (A/C)	SH	N	Semi nar- Role play	Skill as- essment	AETCOM
	Identify responsibilities as a mentor Demonstrate ability to work in a mentoring relationship with junior colleagues						
IM 26.42	Demonstrate commitment to learning and scholarship	S	SH	N	Semi nar- role play	Skill as- essment	AETCOM
	26.42.1. Demonstrate commitment to learning and scholarship						
IM 26.43	Identify, discuss and defend medicolegal, sociocultural, economic and ethical issues as they pertain to in vitro fertilization donor insemination and surrogate motherhood	K	KH	N	Semi- nar	Short note/ viva	AETCOM, OBG, Foren- sic Medicine
	26.43.1. Describe surrogate motherhood						
	26.43.2. Identify and discuss medicolegal issues pertaining to surrogate motherhood						
	26.43.3. Discuss ethical issues regarding surrogate motherhood						
	26.43.4. Discuss economic issues in surrogate motherhood						
	26.43.5. Describe in vitro fertilisation						
	26.43.6. Identify and discuss medicolegal issues pertaining to invitro fertilisation						
	Discuss ethical issues regarding invitro fertilisation						
	Discuss economic issues in invitro fertilisation						
	26.43.9. Describe donor insemination						
	26.43.10. Identify and discuss medicolegal issues pertaining to donor insemination						
	Discuss ethical issues regarding donor insemination						
	Discuss economic issues in donor insemination						

IM 26.44	<p>Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues pertaining to medical negligence</p> <p>26.44.1 Identify medical negligence 26.44.2. Describe and defend medical negligence 26.44.3. Discuss medicolegal issues pertaining to medical negligence Discuss socio-cultural issues pertaining to medical negligence Discuss professional issues pertaining to medical negligence 26.45.6. Discuss ethical issues pertaining to medical negligence</p>	K	KH	N	Semi-nar	Short es-say/viva	AETCOM Forensic Medicine
IM 26.45	<p>Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues pertaining to malpractice</p> <p>26.45.1. Identify and describe medical malpractice 26.45.2. Discuss medicolegal issues pertaining to medical malpractice Discuss socio-cultural issues pertaining to medical malpractice Discuss professional issues pertaining to medical malpractice 26.46.5. Discuss ethical issues pertaining to medical Malpractice</p>	K	KH	N	Semi-nar	Short es-say/viva	Forensic Medicine

IM 13.16	Demonstrate an understanding and needs and preferences of patients when choosing curative and palliative therapy	A/C	KH	Y	Semi-nar-role play	Skill assessment	AETCOM
IM 13.18	Describe and discuss the ethical and the medico legal issues involved in end of life care	K	KH	Y	Semi-nar-role play	Skill assessment	AETCOM; Forensic Medicine
IM14.12	Obesity: Demonstrate an understanding of patient's inability to adhere to lifestyle instructions and counsel them in a non - judgmental way	A/C	SH	Y	Semi-nar-role play	Skill assessment	AETCOM
IM 23.5	Counsel and communicate to patients in a simulated environment with illness on an appropriate balanced diet	C	SH	Y	Semi-nar-role play	Skill assessment	AETCOM
IM 21.7	Counsel family members of a patient with suspected poisoning about the clinical and medico legal aspects with empathy	A/C	SH	Y	Semi-nar-role play	Skill assessment	AETCOM; Forensic Medicine

Self-directed learning-5 hrs including important topics of previous phase which need revision (power point presentation by students& moderated by a teacher)

Sl.No	Topic	SDL (Hrs)
1	(Diabetes Mellitus (classification,diagnosis,treatment,complications	02
2	(Ischemic Heart disease (ACS – diagnosis & management	01
3	(Hypertension (diagnosis & management incl.Hypertensive crisis	01
4	(Hypothyroidism & Hyperthyroidism (clinical features,diagnosis & management	01
	Total	05

Bedside clinics continue with the topics-competencies of II MBBS bedside teaching along with their further intensification (History taking-physical examination in CVS, RS, Abdomen, CNS, Rheumatology, Miscellaneous-endocrine. Infections etc. & management of diseases pertaining to these systems). In addition to these and in alignment with the lecture classes & other topics of III MBBS Part I, the following competencies also, have been included:

Topic: Physical examination Number of competencies: (26) Number of procedures that require certification: (NIL)								
Num- ber	Competency & SLO	Do- main	Mill- ers pyr- amid level	Core	T&L Meth- ods	Assess- ment methods	Inte- gra- tion	
IM 14.6	(Obesity) 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	Skill assessment		
IM 14.7	(Obesity) 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	Skill assessment		
IM 14.8	(Obesity) 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	Skill assessment		
IM14.9	(Obesity) Order and interpret diagnostic tests based on the clinical diagnosis including blood glucose, lipids, thyroid function tests etc.	S	SH	Y	Bedside clinic	Skill assessment		
IM 13.7	(Malignancy) Elicit document and present a history that will help establish the etiology of cancer and includes the appropriate risk factors, duration and evolution	S	SH	Y	Bedside clinic;	Skill assessment	General Surgery	
IM 13.8	(Malignancy) Perform and demonstrate a physical examination that includes an appropriate general and local examination that excludes the diagnosis, extent of spread and complications of cancer	S	SH	Y	Bedside clinic;	Skill assessment	General Surgery	

IM 13.9	(Malignancy) Demonstrate in a mannequin the correct technique for performing breast exam, rectal examination and cervical examination and pap smear	S	SH	Y	Skills lab	Skill assessment	General Surgery; OBG
IM 13.10	(Malignancy) 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	Skill assessment	
IM 13.11	(Malignancy) Order and interpret diagnostic testing based on the clinical diagnosis including CBC and stool occult blood and prostate specific antigen	S	SH	Y	Bedside clinic	Skill assessment	
IM 13.13	(Malignancy) Describe and assess pain and suffering objectively in a patient with cancer	S	SH	Y	Bedside clinic	Skill assessment	Anesthesia (pain clinic)
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	Bedside clinic/skills lab; DOAP session	Skill assessment	Forensic Medicine
	Demonstrate first aid of snake bite. Educate the local community.						
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	Skill assessment	Forensic Medicine
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	Skill assessment	

IM20.6	Choose and interpret the appropriate diagnostic testing in patients with snake bites	S	SH	Y	Bedside clinic	Written/ Viva voce	
IM21.5	Observe and describe the functions and role of a poison center in suspected poisoning	S	KH	Y	Bedside clinic; visit to poison control center	document in log book	Forensic Medicine
IM 26.19	Demonstrate ability to work in a team of peers and Superiors	S	SH	Y	Bedside clinic- DOAP session	Skill assessment	
	<p>Identify the impact teamwork has on organizational performance.</p> <p>identify factors associated with teamwork</p> <p>26.19.3. identify the positive or negative effects of teamwork on employees</p> <p>examine the impact of teamwork on organization performance</p> <p>Demonstrate ability to work in a team of peers and superiors</p>						
IM 26.20	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	AET-COM
	<p>26.20.2. Discuss the components of communication</p> <p>26.20.3. Demonstrate ability to communicate to patients in respectful, non-threatening non-judgemental and emphatic manner</p> <p>26.20.4. Communicate diagnosis and therapeutic options to patient and family members in a simulated environment</p>						

IM 26.21	demonstrate respect to patient privacy	S	SH	Y	Bedside clinic- DOAP session	Skill assessment	
	<p>Understand the need to speak to patient directly and respectfully</p> <p>Do clinical examination with regard to patients dignity</p> <p>Understand the importance of Protecting patients physical privacy</p> <p>Understand the importance of protecting the patient's personal information</p>						
IM 26.22	Demonstrate ability to maintain confidentiality in patient care	S	SH	Y	Bedside clinic- DOAP session	Skill assessment	
	<p>26.22.1. Describe and define confidentiality</p> <p>26.22.2. Discuss about confidentiality breach</p> <p>26.22.3. List tips for maintaining confidentiality</p> <p>26.22.4. Describe disciplinary actions in case of breaching confidentiality</p>						
IM 26.23	demonstrate commitment to continued learning	S	SH	Y	Bedside clinic- DOAP session	Skill assessment	
	<p>Define and describe continued medical education programmes</p> <p>Understand the importance of keeping up to date with new concepts and development in health field</p> <p>Develop positive attitude meet challenges of Technology</p>						
IM 26.24	Demonstrate respect in relationship with patients, fellow team members, superiors and other health care workers	S	SH	Y	Bedside clinic- DOAP session	Skill assessment	

IM 26.25	Demonstrate responsibility and work ethics while working in the health care team	S	SH	Y	Bedside clinic- DOAP session	Skill assessment	
	Describe the responsibilities of a physician in a health care team Demonstrate work ethics while working in a health care team						
IM 26.26	Demonstrate ability to maintain required documentation in health care (including correct use of medical records)	S	SH	Y	Bedside clinic- DOAP session	Skill assessment	
	26.26.1. Enlist the rules to be followed while documentation in health care 26.26.2. Demonstrate with an example, the correct use of medical words in documentation						
IM 26.27	Demonstrate personal grooming that is adequate and appropriate for health care responsibilities	S	SH	Y	Bedside clinic - DOAP session	Skill assessment	
	26.27.1. Demonstrate personal grooming that is adequate and appropriate for health care responsibilities 26.27.2. Carry on his/ her health care responsibility with the right attitude towards patients and colleagues						
IM 26.28	Demonstrate adequate knowledge and use of information technology that permits appropriate patient care and continued learning	S	SH	Y	Bedside clinic - DOAP session	Skill assessment	
	Know how to use technology to follow up on patient reports Know how to download or upload journals , presentations and other multimedia to update his/her knowledge						

IM 26.31	Demonstrate awareness of limitations and seeks help and consultations appropriately 26.31.1.Demonstrate awareness of limitations to the patient 26.31.2. Explain the patient and family to seek help and consultations appropriately	S (A/C)	SH	Y	Bedside clinic, DOAP session	Skill assess- ment	AET- COM
---------------------	--	------------	----	---	---------------------------------	-----------------------	-------------

5. ASSESSMENT:

- a) SUMMATIVE ASSESSMENT- NIL; No summative assessment in Gen.Medicine in this phase
- b) INTERNAL ASSESSMENT

As per GMER 2019, page.no.82-83, 11.1.1(b):

1. There will be 2 theory internal assessment examinations in Gen.Medicine.
2. There will be one clinical internal assessment at the end of clinical postings; Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners participate in learning process. Day to day records and log book should be given importance in internal assessment. Internal assessment should be based on competencies and skills.

As per GMER 2019, 9.5.3, page.no.75:

- (a) A designated faculty member in each unit will coordinate and facilitate the activities of the learner, monitor progress, provide feedback and review the log book/ case record.
- (b) The log book/ case record must include the written case record prepared by the learner

PROPOSED MARKS ALLOCATION FOR INTERNAL ASSESSMENT

Theory:50 marks; 1½ hours(90min)Clinicals ; 40 marks

(Long essays: $1 \times 10 = 10$ marks
Short essays: $3 \times 5 = 15$ marks
Short notes: $5 \times 3 = 15$ marks
MCQs: $10 \times 1 = 10$ marks)

(One Long case: 20 marks
OSCE : 10 marks
Log book : 5 marks
Case Record : 5 marks)

Annexure I -Recommended books:

RECOMMENDED BOOKS (Recent editions):

TEXT- BOOKS RECOMMENDED

1. Davidson's Principles and Practice of Medicine
2. Hutchison's Clinical Methods
3. Macleod's Clinical Examination.

REFERENCE BOOKS:

LEVEL 1:

1. API textbook of Medicine
2. Kumar & Clark's Clinical Medicine

LEVEL 2:

Harrison's Principles of Internal Medicine, McGraw Hill publications

Annexure II -MODEL QUESTION PAPER

(PS: this is just a model; questions are not based on phase 3 topics)

JSS Medical College

DEPARTMENT OF MEDICINE

Theory Internal Assessment for MBBS-phase 3 part I

Date:

Time:

Max Marks: 50 marks

Instructions to the candidates;

1. Answer all questions;
2. Give Specific Answers & Write legibly
3. Draw a neat and labeled diagram whenever necessary
4. Time allotted is 1½ hours(90mins)

Long essays: 1 x 10 = 10 marks

1. Mention etiological Classification, Diagnostic Criteria, Treatment Goals of Diabetes Mellitus. List the complications of Diabetes Mellitus.

(3+2+2+3 marks)

Short essays: 3x5 = 15 marks

1. Causes, recognition and Treatment of hypoglycemia.
2. Clinical features and treatment of hyperthyroidism.
3. Discuss medicolegal, socio-cultural professional and ethical issues pertaining to medical negligence

Short notes: 5x3=15 marks

1. Chest X ray finding in Emphysema.
2. ECG changes in hyperkalemia.
3. Contraindications for lumbar puncture.

Multiple choice questions 10 x 1 = 10 marks

All questions are compulsory

1. Following diseases are characterized by obesity except;

- a. Cushing's syndrome
- b. Hypothyroidism
- c. Addison's disease
- d. Acromegaly

2. Following are the typical causes of microcytic hypochromic anemia except;

- a. Iron deficiency anemia
- b. Hemolytic anemia
- c. Sideroblastic anemia
- d. Anemia of chronic disease

3. Furosemide acts on which part of nephrons ?

- a. Proximal tubule
- b. Distal tubule
- c. Ascending limb of loop of Henle
- d. Descending limb of loop of Henle

4. Drug of choice for chronic myeloid leukemia is

- a. Methotrexate
- b. Imatinib mesylate
- c. Dexamethasone
- d. Bortezomib

5. Addison's disease is characterized by following features except;

- a. Emaciation
- b. Hypotension
- c. Hypokalemia
- d. Hyperpigmentation

6. Following are the symptoms of primary hyperparathyroidism except?

- a. Constipation
- b. Frequent urination
- c. Frequent diarrhea
- d. Joint pain

7. Nosocomial pneumonia is commonly caused by

- a. Streptococcal infection
- b. Gram negative organisms
- c. Viruses
- d. Mycoplasma

8. A 55-year-old woman with hyperthyroidism was treated with radioactive iodine. One month later she is most likely to be started on a therapy with :

- a. Potassium iodide
- b. Levothyroxine
- c. Carbimazole
- d. Propranolol

9. A 32-year-old gardener with an alleged history of snake bite comes to the hospital with inability to open eyes well and difficulty in breathing. He is very anxious and has tachycardia and tachypnea. On examination, fang marks cannot be visualized and there is no swelling of the limb. He has bilateral ptosis. His 20 min whole blood clotting test is normal. What is the next appropriate course of action?

- a. Reassure the patient and send him home with anxiolytic
- b. Don't give anti-snake venom (ASV), but keep the patient under observation
- c. Give ASV and keep the patient under observation
- d. Give ASV, and give Neostigmine and observe the patient

10) A 48 year old lady has unusual fatigue and lightheadedness, especially when rising suddenly. On examination, she has postural hypotension & her husband has noticed darker-than usual complexion. Investigations reveal hyponatremia, hyperkalemia and hypocalcemia. The most appropriate diagnostic test is :

- a. Dexamethasone suppression test
- b. Synthetic ACTH stimulation test
- c. Fluid deprivation test
- d. Desmopressin challenge test

GENERAL SURGERY

PREAMBLE

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.

Excerpts from GMER- Regulations on Graduate Medical Education (Amendment), 2019 and UG Curriculum Volumes 1, 2 & 3 have been utilized in preparing this syllabus document for Alignment / Integration between topics & subjects has been attempted.

As per GMER 2019, Distribution of subjects by Professional Phase. Third Professional - part 1MBBS(12 months) includes the following:

- Forensic Medicine and Toxicology, Otorhinolaryngology, Ophthalmology and Community Medicine
- Clinical postings
- Attitude, Ethics & Communication Module (AETCOM)

As per GMER 2019, Year 3: Focus of Learner - Doctor Program is History taking, physical examination, assessment of change in clinical status, communication and patient education

Keeping the above format as guiding framework, the department of General Surgery department plans to introduce Clinical Surgery to Third Professional - part 1MBBS

TABLE OF CONTENTS

Sl. No.	Content
1	Goal and Objectives
2	Terms and Teaching Guidelines
3	Syllabus at a glance; teaching hours
4	Competencies, Specific Learning Objectives, Teaching learning and Assessment methods
5	Assessment

6	Annexures
	Annexure I- Recommended Books
	Annexure II- Model Question paper

1. GOAL AND OBJECTIVES

Syllabus in General Surgery for Third Professional MBBS Part I (12 months)

I. GOAL:

The goal of teaching **General Surgery** for Third Professional MBBS part 1 aims at

- providing the foundation of core surgical knowledge,
- to communicate effectively, compassionately, and professionally with patients,
- eliciting history, recording clinical findings and diagnosing common general surgical conditions.

II. OBJECTIVES:

A) Cognitive Domain

At the end of the Third Professional MBBS, undergraduate students in General Surgery should be able to

1. Describe aetiology, pathophysiology, principles of diagnosis and management of trauma, endocrine disorders, skin and vascular disease
2. Define indications and methods of hospital waste management
3. Define the Principles of surgical wound closure, anastomosis, minimal invasive general surgery and reconstruction of developmental anomalies of face, mouth and jaws

B) Affective Domain

At the end of the Third Professional MBBS part 1, undergraduate students in General Surgery should be able to

1. Communicate effectively with patients, peers, and teachers
2. Communicate effectively and counsel regarding surgical patients seeking trauma care

3. Communicate effectively and able administer informed consent and counsel patient prior to surgical procedures
4. Participate in Counselling patients and relatives on organ donation in a simulated environment

C.) Psychomotor Domain

At the end of the Third Professional MBBS, undergraduate students in General Surgery should be able to

1. Acquire skills in correct clinical examination of endocrine disorders, skin and vascular disease
2. Acquire skills to perform the techniques of asepsis and suturing
3. Acquire skills to perform the intercostal drainage and airway maintenance

D) INTEGRATION

At the end of 3rd year training he/she should be able to integrate the causes of disease and relationship of different etiological factors (social, economic and environmental) and that contribute to the natural history of diseases most prevalent in India and describe a few diseases and their work-up & treatment pertaining to a few selected topics (see below) in General Surgery and perform a physical examination that is contextual

III. COURSE OUTCOMES

At the end of 3rd professional MBBS, students should

1. Acquire skills to Perform a complete history and physical examination on surgical patients
2. Acquire skills to Formulate an appropriate differential diagnosis, and record an independent written diagnosis for each surgical patient assigned.
3. To become skilled in eliciting and interpreting physical signs which can indicate urgent life-threatening conditions.
4. To become familiar with the spectrum of surgical care available and to develop a critical attitude in assessing its value in relation to less invasive forms of treatment.
5. Commitment to advancement of quality and patient safety in surgical practice.

2. TERMS AND TEACHING GUIDELINES

1. LECTURE

Is a teaching learning method which includes traditional and interactive sessions involving a large group.

25 hours in total for General Surgery

2. SMALL GROUP DISCUSSION (BEDSIDE CLINICS/OPD Teaching as applied to CLINICAL POSTINGS in GENERALSURGERY)

Is an instructional method involving small groups of students in an appropriate learning context (ward/opd teaching as applied to CLINICAL POSTINGS in GENERAL SURGERY)

The clinical postings in the second professional will be 15 hours per week X 4 weeks (3 hrs per day from Monday to Friday as per GMER 2019,) covering History taking, Symptomatology, GPE and Examination pertaining to common Surgical conditions.

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

Provides learners with experience in longitudinal patient care being part of the health care team with Hands-on care of patients in outpatient and inpatient setting. The first clinical posting in second professional shall orient learners to the patient, their roles and the speciality (as per GMER 2019)

4. CORE

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

5. NON – CORE

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

3.Syllabus at a glance
General Surgery for Third Professional MBBS (12 months)

A. Number of teaching hours:

Teaching method	Hours
Lecture	25 (1hr X 25)
Clinical postings	3 hrs. per day from Monday to Saturday)
SGD	35 hrs
Total	120

MINIMUM TEACHING HOURS

Lecture Classes: Metabolic response to injury, Shock, Blood and blood components, Burns, Wound healing and wound care, Surgical infection, Surgical Audit and Research, Investigation of surgical patient, Nutrition and fluid therapy

Sl. No	Topic	Number of competencies	Lecture (Hrs)
1	Transplantation	04	02
2	Basic Surgical Skills	04	01
3	Biohazard disposal	01	01
4	Minimally invasive General Surgery	01	01
5	Trauma	10	03
6	Skin and subcutaneous tissue	03	01
7	Developmental anomalies of face, mouth and jaws	02	01
8	Endocrine General Surgery: Thyroid and parathyroid	06	04
9	Adrenal glands	03	02
10	Breast	05	04

11	Vascular diseases	08	05
	Total	47	25hrs

Clinical Postings: Bedside Clinical Teaching (Bedside clinics, ward rounds, OPD and Operation theatre & Skill lab; DOAP) covering History taking, Symptomatology, GPE & Examination pertaining to all common Surgical conditions plus Self-directed Learning towards History taking & Physical Examination (in the form of independent case taking).

Clinical postings - 15 hours per week X 4 weeks - 3 hrs per day from Monday to Saturday

Sl No	Topic	(Hrs)
1	Introduction, Scheme of History taking	03
2	General Scheme of Examination	03
3	Ulcers – Symptomatology and Examination	06
4	Swelling – Symptomatology and Examination	09
5	Vascular Arterial – Symptomatology and Examination	06
6	Vascular Venous and Lymphatics – Symptomatology and Examination	06
7	Abdomen – Symptomatology and Examination	09
8	Thyroid – Symptomatology and Examination	06
9	Breast – Symptomatology and Examination	06
10	Inguinoscrotal swellings – Symptomatology and Examination	06
	Total	60

Internal Assessment

Theory

First theory internal assessment examination in General Surgery will be held after six months (end of block 2) and second internal assessment examination will be held after 9 months of Phase III part I (end of block 3)

Clinical

There will be one clinical internal assessment at the end of clinical postings.

4. COMPETENCIES, SPECIFIC LEARNING OBJECTIVES, TEACHING LEARNING & ASSESSMENT METHODS

(CODE: SU; Competencies have been combined if they are similar)

Topic Number	COMPETENCY The student should be able to	Do- main K/S/ A/C	Level K/KH/ SH/P	Core (Y/ N)	Sug- gested Teach- ing Learn- ing method	Sug- gested As- sess- ment meth- od	Num- ber re- quired to cer- tify P	Ver- tical Inte- gration	Hor- izont- al Inte- gration
Trans- planta- tion	Number of competencies: (04)	Number of procedures that require certification: (NIL)							
SU 13.1	Describe the immunological basis of organ transplantation. 1. Discuss the concept of ABO blood group antigens. 2. Enumerate on effector mechanism of rejection. 3. Discuss the types of allograft rejection. 4. Enumerate on Graft versus Host disease	K	KH	Y	Lecture	Written/ Viva voce		Micro- biolo- gy	

SU13.2	<p>Discuss the principles of immunosuppressive therapy. Enumerate indications, describe surgical principles, management of organ transplantation.</p> <ol style="list-style-type: none"> 1. Enlist the different immunosuppressive agents. 2. Enumerate on agent specific side effects of immunosuppressive agents used in organ transplantation 3. Enumerate the indications of renal, pancreatic, liver, small bowel, heart transplantation. 4. Enumerate on surgical principles of different organ transplantation. 5. Discuss the management of a patient with organ transplantation. 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	Microbiology Pharmacology	
SU 13.3	<p>Discuss the legal and ethical issues concerning organ donation.</p> <ol style="list-style-type: none"> 1. Discuss the concept of living donors. 2. Enumerate on organ recovery from deceased donor. 3. Enumerate on donation after brain death and circulatory death donors. 4. Enlist the ethical issues concerning organ donation. 5. Enlist the legal components of organ donation. 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	AET-COM	

Basic Sur- gical Skills	Number of competencies: (04)	Number of procedures that require certification: (NIL)						
SU 14.1	<p>Describe Aseptic techniques, sterilization and disinfection.</p> <ol style="list-style-type: none"> 1. Enumerate the various disinfectant used in surgical practice 2. Discuss disinfectant profile 3. Discuss the methods used sterilizing OT instruments 	K	KH	Y	Lecture	Written/ Viva voce		
SU14.2	<p>Describe Surgical approaches, incisions and the use of appropriate instruments in Surgery in general.</p> <ol style="list-style-type: none"> 1. Describe the principles of skin and abdominal incisions <p>Discuss the common incisions used for open abdominal surgeries</p>	K	KH	Y	Lecture, Small group discus- sion	Written/ Viva voce		
SU14.3	<p>Describe the materials and methods used for surgical wound closure and anastomosis (sutures, knots and needles)</p> <ol style="list-style-type: none"> 1. Enumerate different suture materials used in general surgery 2. Enumerate parts of needle and types of needles used in general surgery and <p>Discuss the characteristics of ideal suture material</p>	K	KH	Y	Lecture, Small group discus- sion	Written/ Viva voce		

Bio-hazard disposal	Number of competencies: (01) Number of procedures that require certification: (NIL)							
SU 15.1	Describe classification of hospital waste and appropriate methods of disposal. <ol style="list-style-type: none"> 1. Enumerate types of biomedical waste 2. Discuss the segregation of various categories of biomedical waste 3. Discuss the various methods used for safe disposal of biomedical waste 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Micro-biology
Minimally invasive General Surgery	(Number of competencies: (01) Number of procedures that require certification: (NIL)							
SU 16.1	Describe indications, advantages and disadvantages of Minimally invasive General Surgery(MIS) <ol style="list-style-type: none"> 1. Enumerate the indications, contra-indications and limitations of MIS 2. Describe the general principles of Laparascopy 3. Enumerate the Complications of Minimally Invasive Surgery 	K	K	Y	Lecture, Demonstration, Bedside clinic, Discussion	Theory/ Practical / Orals/ Written/ Viva voce		
Trauma	Number of competencies: (10) Number of procedures that require certification: (NIL)							
SU 17.1	Describe the principles of first aid <ol style="list-style-type: none"> 1. Describe the concepts of care for patients with minor injuries involving cleaning and dressing of wounds. 2. Discuss the importance of suturing lacerations and splinting simple fractures. 3. Choose the right antibiotic prophylaxis and enumerate on simple pain relief. 	S	KH	Y	Lecture, Small group discussion	Written/ Viva voce		

SU 17.3	<p>Describe the principles in mass casualties.</p> <ol style="list-style-type: none"> 1. Discuss the sequence of relief efforts after a disaster. 2. Discuss the concept of triage and triage categories. 3. Enumerate on essentials of casualty evacuation. 4. Enlist the steps of the management in the field. 5. Discuss the principles of damage control surgery. 6. Discuss the definitive management of mass casualties. 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		
SU 17.4	<p>Describe pathophysiology, mechanism of head injuries.</p> <ol style="list-style-type: none"> 1. Discuss the physiology of cerebral blood flow and pathophysiology of raised intracranial pressure 2. Discuss the concept of minor and mild head injury. 3. Discuss the concept of Concussion, second impact syndrome and post concussive syndrome. 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		
SU 17.5	<p>Describe clinical features of neurological assessment and GCS in head injury.</p> <ol style="list-style-type: none"> 1. Describe the classification of head injury. 2. Enumerate on calculating the Glasgow coma score. 3. Discuss the importance of history and examination; primary survey and secondary survey. 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		
SU 17.6	<p>Choose appropriate investigations and discuss the principles of management of head injury.</p> <ol style="list-style-type: none"> 1. Describe the classification of head injury. 2. Enumerate on calculating the Glasgow coma score. 3. Discuss the importance of history and examination; primary survey and secondary survey. 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		
SU 17.7	<p>Describe the clinical features of soft tissue injuries, choose appropriate investigations and discuss the principles of management.</p> <ol style="list-style-type: none"> 1. Enumerate the importance of gaining an understanding of identifying whether an injury exists. 2. Enumerate on the Gustilo and Anderson classification for open injuries 3. Discuss the concept of compartment syndrome. 	KKH	KH	Y	Lecture, Small group discussion	Written/ Viva voce		

	<ol style="list-style-type: none"> 4. Choose appropriate investigations in the management of soft tissue injury. 5. Enumerate on principles of debridement and initial wound care. 6. Enumerate on Mangled Extremity severity score. 7. Describe the principles of tetanus prophylaxis. 8. Discuss crush injury and syndrome. 9. Discuss the principles of management of crush injuries. 							
SU 17.8	<p>Describe the pathophysiology of chest injuries.</p> <ol style="list-style-type: none"> 1. Discuss the clinical indicators of potential ongoing bleeding in torso trauma. 2. Discuss the concept of airway obstruction, tension pneumothorax and pericardial tamponade. 3. Discuss the concept of flail chest. 4. Enlist the potentially life threatening injuries in chest trauma. 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		
SU 17.9	<p>Describe the clinical features and principles of management of chest injuries</p> <ol style="list-style-type: none"> 1. Discuss the clinical assessment in a patient with chest trauma. 2. Discuss the ATLS principles of resuscitation in thoracic injuries. 3. Enlist the different investigations for chest trauma. 4. Discuss the importance of under water chest drain insertion. 5. Discuss the management of immediately life threatening chest injuries like airway obstruction, tension pneumothorax, pericardial tamponade, open pneumothorax and flail chest. 	K	KH	Y	Lecture, Small group discussion	Lecture, Small group discussion	Written/ Viva voce	

Skin and sub-cutaneous tissue	Number of competencies: (03)	Number of procedures that require certification: (NIL)					
SU18.1	<p>Describe the pathogenesis, clinical features and management of various cutaneous and subcutaneous infections.</p> <ol style="list-style-type: none"> 1. Discuss about the anatomy and physiology of skin 2. List the various functions of skin 3. Enumerate about the various congenital disorders of skin 4. List the causes of skin damage and explain in brief 5. Enumerate about various skin infections 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	
SU18.2	<p>Classify skin tumors</p> <p>Differentiate different skin tumors and discuss their management.</p> <ol style="list-style-type: none"> 1. Describe the benign and malignant skin conditions 2. Enumerate the vascular lesions of skin 3. List the various types of skin grafting and explain them in brief 4. Describe the stages in uptake of split skin grafting 5. Enumerate differences between a benign and malignant condition 6. Describe the management of malignant skin conditions 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	

De- velop- men- tal anom- alies of face, mouth and jaws	(Number of competencies: (01) Number of procedures that require certification: (NIL							
SU 19.1	Describe the etiology and classification of cleft lip and palate <ol style="list-style-type: none"> 1. Discuss the aetiology of developmental abnormalities of the face, mouth and jaws 2. Classify the developmental abnormalities of face, mouth and jaws 3. Discuss the Perinatal and early childhood management 	K	KH	Y	Lecture, Small group discus- sion	Written/ Viva voce		Hu- man Anat- omy
SU 19.2	Describe the Principles of reconstruction of cleft lip and palate <ol style="list-style-type: none"> 1. Enumerate the principles of reconstruction of cleft lip and palate 2. Discuss the key features of perioperative care 3. Discuss the management of complications associated with cleft lip and palate 	K	KH	Y	Lecture, Small group discus- sion	Written/ Viva voce		Hu- man Anat- omy

Endo- crine General Sur- gery: Thyroid and para- thyroid	(Number of competencies: (06) Number of procedures that require certification: (NIL							
SU 22.1	Describe the applied anatomy and physiology of thyroid <ol style="list-style-type: none"> 1. Describe the Embryology of thyroid gland 2. Describe the anatomy of thyroid gland 3. Describe the Physiology of thyroid gland 	K	KH	Y	Lecture, Small group discus- sion	Writ- ten/ Viva voce		Hu- man Anat- omy
SU 22.2	Describe the etiopathogenesis of thyroidal swellings <ol style="list-style-type: none"> 1. Define goiter 2. Classify goiter 3. Describe the etiology of simple goiter 4. Describe the Natural History of simple goiter 	K	KH	Y	Lecture	Writ- ten/ Viva voce		Pa- tholo- gy
SU 22.3	Demonstrate and document the correct clinical examination of thyroid swellings and discuss the differential diagnosis and their management <ol style="list-style-type: none"> 1. Describe the clinical features of simple goiter 2. Describe the prevention and treatment of simple goiter 3. Describe the clinical features and treatment of retrosternal goiter 4. Describe the types clinical features and treatment of thyrotoxicosis 5. Classify inflammatory goiters 	S	SH	Y	Bedside clinics	Skill asses- ment		

	<p>6. Describe the clinical features and treatment of inflammatory goiter</p> <p>7. Enumerate the various investigations used for thyroid swellings</p> <p>8. Describe the various surgical procedures for thyroid</p> <p>9. Describe the surgical technique of thyroidectomy</p> <p>10. Describe the post operative complications of thyroidectomy</p>							
SU 22.4	<p>Describe the clinical features, classification and principles of management of thyroid cancer</p> <p>1. Classify neoplasm of the thyroid</p> <p>2. Describe the etiology of malignant thyroid tumours</p> <p>3. Describe the clinical features of thyroid cancers</p> <p>4. Describe the investigations used for diagnosis of thyroid neoplasm describe the surgical treatment of differentiated thyroid cancer</p> <p>5. Describe the treatment of anaplastic carcinoma</p> <p>6. Describe the clinical features and treatment of medullary carcinoma</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		
SU 22.5	<p>Describe the applied anatomy of parathyroid</p> <p>1. Describe the anatomy of parathyroid glands</p> <p>2. Discuss calcium and parathyroid hormone regulation</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	Human Anatomy	
SU 22.6	<p>Describe and discuss the clinical features of hypo – and hyperparathyroidism and the principles of their management</p> <p>1. Classify hyperparathyroidism</p> <p>2. Describe the presentation of primary hyperparathyroidism</p> <p>3. Describe the pathology of primary hyperparathyroidism</p> <p>4. Discuss the various localization studies used in primary hyperparathyroidism</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		

	<p>5. Discuss the management strategies of primary hyperparathyroidism</p> <p>6. Describe the clinical features and management of hypoparathyroidism</p> <p>7. Describe the familial syndromes associated with hyperparathyroidism</p> <p>8. Discuss the clinical features and diagnosis of secondary hyperparathyroidism</p> <p>9. Discuss the management strategies for secondary hyperparathyroidism</p> <p>10. Describe about tertiary hyperparathyroidism</p> <p>11. Describe the presentation and management of hypercalcemic crisis</p> <p>12. Discuss about parathyroid carcinoma</p>							
--	---	--	--	--	--	--	--	--

Adrenal glands	(Number of competencies: (03) Number of procedures that require certification: (NIL
-----------------------	--

SU23.1	<p>Describe the applied anatomy of adrenal glands</p> <p>1. Describe the anatomy of adrenal glands</p> <p>2. List the functions of adrenal glands</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy
SU23.2	<p>Describe the etiology, clinical features and principles of management of disorders of adrenal gland</p> <p>1. Discuss the pathology, clinical features, diagnosis and management of primary hyperaldosteronism</p> <p>2. Discuss the clinical features, diagnosis and treatment of Cushing syndrome</p> <p>3. Describe the clinical features and management of adrenal insufficiency</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine

SU23.3	<p>Describe the clinical features, principles of investigation and management of Adrenal tumors</p> <p>1. Discuss the incidence, pathology, clinical features, diagnosis and treatment of adrenocortical carcinoma 2. Discuss the etiology, pathology, clinical features, diagnosis and treatment of pheochromocytoma 3. Classify and discuss multiple endocrine neoplasia</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		
Breast	(Number of competencies: (05) Number of procedures that require certification: (NIL							
SU25.1	<p>Describe applied anatomy and appropriate investigations for breast disease</p> <p>1. Describe the surgical anatomy of breast 2. Discuss the investigations of breast disorders</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Human Anatomy
SU25.2	<p>Describe the etiopathogenesis, clinical features and principles of management of benign breast disease including infections of the breast</p> <p>1. Enumerate the various diseases affecting the nipple 2. Enumerate the various discharges from the nipple 3. List the various congenital abnormalities of the breast 4. Describe the etiology, clinical features and treatment of mastitis 5. Discuss the pathology, clinical features and treatment of duct ectasia 6. Classify and discuss about aberration of normal development and involution of breast</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		

SU 25.3	<p>Describe the etiopathogenesis, clinical features, Investigations and principles of treatment of benign and malignant tumours of breast.</p> <ol style="list-style-type: none"> 1. Discuss the clinical features and treatment of phyllodes tumor 2. Discuss the etiology, pathology, clinical presentation, staging and treatment of carcinoma of the breast 3. Enumerate the various surgical options for breast diseases and their complications 4. Discuss about breast reconstruction 5. Discuss about the etiology and treatment of gynaecomastia 6. Discuss about the etiology, clinical features and treatment of carcinoma of male breast 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Radiodiagnosis
---------	---	---	----	---	---------------------------------	--------------------------------------	--	----------------

Vascular diseases	Number of competencies: (08) (certification: (NIL	Number of procedures that require						
SU 27.1	<p>Describe the etiopathogenesis, clinical features, investigations and principles of treatment of occlusive arterial disease.</p> <ol style="list-style-type: none"> 1. Enumerate the different causes of arterial occlusion in lower limb and upper limbs. 2. Describe various causes of arterial occlusion like, atherosclerosis, embolism, arteritis and trauma 3. Describe intermittent claudication and the grades of claudication. 4. Define rest pain. 5. Enumerate burgers angle, coldness, numbness, paraesthesia and colour changes in a limb with arterial occlusion 6. Enumerate the importance of temperature sensation and movement in a limb with arterial occlusion. 7. Enumerate on ulceration and gangrene in a limb with arterial occlusion. 	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		

	<p>8. Describe the importance of arterial pulsations, arterial bruits ,venous refilling and capillary refilling in a limb with arterial occlusive disease.</p> <p>9. Describe the relationship of clinical findings to the site of disease in a limb with arterial occlusion.</p> <p>10. Enumerate on doppler ultrasound in blood flow detection in a limb with arterial occlusion.</p> <p>11. Describe the importance and interpretation of duplex imaging and angiography.</p> <p>12. Enumerate the principles of non-surgical management of arterial stenosis.</p> <p>13. Enumerate on transluminal angioplasty and stenting.</p> <p>14. Describe the principles of operative management for arterial stenosis or occlusion.</p> <p>15. Enumerate on different causes of embolic occlusion, clinical features and treatment of embolic occlusions.</p>							
SU 27.3	<p>Describe clinical features, investigations and principles of management of vasospastic disorders</p> <p>1. Describe clinical features of Raynaud's disease and enumerate on Raynaud's syndrome.</p> <p>2. Enumerate on investigations for vasospastic disorders.</p> <p>3. Enumerate the principles of management for vasospastic disorders</p> <p>4. Enumerate cervical sympathectomy and lumbar sympathectomy</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		
SU 27.4	<p>Describe the types of gangrene and principles of amputation</p> <p>1. Define gangrene and enumerate on separation of gangrene</p> <p>2. Enumerate the salient features of wet and dry gangrene.</p> <p>3. Describe gas gangrene and its pathogenesis</p> <p>4. Enumerate the principles of treatment of gangrene</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/		

	<p>5. Enumerate specific varieties of gangrene like diabetic gangrene, bed sores and frostbite</p> <p>6. Enumerate on different levels of amputations</p> <p>7. Enlist the indications for amputation.</p> <p>Describe major amputations like below knee amputation and above knee amputation</p> <p>8. Enumerate on post-operative care of an amputee.</p>							
SU 27.5	<p>Describe the applied anatomy of venous system of lower limb</p> <p>1. Describe the anatomy of deep veins of the lower limb.</p> <p>2. Describe the anatomy of great saphenous axis.</p> <p>3. Describe the anatomy of small saphenous axis</p>	K	K	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		
SU 27.6	<p>Describe pathophysiology, clinical features, investigations and principles of management of DVT and varicose veins.</p> <p>1. Describe the effect of exercise on the superficial venous pressure in health and disease</p> <p>2. Enlist the factors causing venous hypertension</p> <p>3. Enumerate the clinical features of venous hypertension of the leg</p> <p>4. Enumerate on CEAP classification system</p> <p>5. Discuss the epidemiology, symptoms and signs of varicose vein.</p> <p>6. Enumerate on venous duplex imaging in investigating varicose veins</p> <p>7. Enumerate on treatment methods like compression, endothermal ablation, laser ablation, radiofrequency ablation, phlebectomy, ultrasound guided foam sclerotherapy.</p> <p>8. Describe the procedure of sapheno-femoral ligation and great saphenous vein stripping.</p>	K	KH	Y	Lecture, Small group Discussion, Demonstration	Written/ Viva voce/ Skill assessment		

	<p>9. Describe the procedure of sapheno-popliteal junction ligation and small saphenous vein stripping.</p> <p>10. Enumerate on pathophysiology, clinical features, investigations and management of venous ulcer</p> <p>11. Enumerate on risk factors for venous thromboembolism</p> <p>12. Describe the pathology, diagnosis, investigations, prophylaxis and treatment of deep vein thrombosis.</p> <p>13. Enumerate on modified well's criteria for predicting pulmonary thromboembolism</p>						
SU 27.7	<p>Describe pathophysiology, clinical features, investigations and principles of management of lymph edema, lymphangitis and lymphomas</p> <p>1. Define lymph edema and describe the pathophysiology of lymph edema.</p> <p>2. Enumerate on classification of lymph edema.</p> <p>3. Enumerate the symptoms and signs and risk factors for lymph edema.</p> <p>4. Enumerate on primary lymph edema and it's etiology.</p> <p>5. Enumerate on secondary lymph edema and it's causes like filariasis, bacterial infection and malignancy.</p> <p>6. Enumerate on investigations of lymph edema like lymphangiography and isotope lymphoscintigraphy, computed tomography and magnetic resonance imaging.</p> <p>7. Describe the management of lymph edema like non-operative exercise, drugs and surgery.</p> <p>8. Enumerate on acute inflammation of the lymphatics.</p> <p>9. Enumerate the clinical features of lymphomas.</p> <p>10. Enumerate on classification and staging of Hodgkin's lymphoma.</p> <p>11. Enumerate on classification and staging of Non-Hodgkin's lymphoma</p> <p>12. Describe the principles of management of lymphomas.</p>	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment	

5. ASSESSMENT

a) SUMMATIVE ASSESSMENT- NIL; No summative assessment in General Surgery in this phase

b) INTERNAL ASSESSMENT

As per GMER 2019, page.no.82-83, 11.1.1(b):

1. There will be 2 theory internal assessment examinations in General Surgery. First theory internal assessment examination will be held after six months and second internal assessment examination will be held after 9 months of Phase III part I
2. There will be one clinical internal assessment at the end of clinical postings.

Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners participate in learning process. Day to day records and log book should be given importance in internal assessment. Internal assessment should be based on competencies and skills.

As per GMER 2019, 9.5.3, page.no.75:

- (a) A designated faculty member in each unit will coordinate and facilitate the activities of the learner, monitor progress, provide feedback and review the log book/ case record.
- (b) The log book/ case record must include the written case record prepared by the learner

PROPOSED MARKS ALLOCATION FOR INTERNAL ASSESSMENT

Theory: 50 marks; 1½ hours(90min) Clinicals; 40 marks

Long essays: $15 \times 1 = 15$ mark One Long case: 20 marks

Short essays: $5 \times 5 = 25$ marks OSCE: 10 marks

Short notes: $3 \times 5 = 15$ marks Log book: 5 marks

MCQs: $1/2 \times 10 = 5$ marks Case Record: 5 marks

**Annexure I - Recommended books:
RECOMMENDED BOOKS (Recent editions):
TEXT- BOOKS RECOMMENDED**

1. A MANUAL ON CLINICAL SURGERY, Dr.S. Das
2. Bailey & Love's SHORT PRACTICE of SURGERY
3. Hamilton Bailey's Physical Signs: Demonstrations of Physical Signs in Clinical Surgery
4. Farquharson's Textbook of Operative General Surgery
5. Pye's Surgical Handicraft: A Manual of Surgical Manipulations, Minor Surgery

REFERENCE BOOKS:

LEVEL 1:

1. SABISTON TEXTBOOK of SURGERY: The BIOLOGICAL BASIS of MODERN SURGICAL PRACTICE
2. Schwartz's Principles of Surgery
3. Essentials of General Surgery

LEVEL 2:

1. Maingot's ABDOMINAL OPERATIONS
2. BLUMGART's Surgery of the Liver, Biliary Tract, and Pancreas
3. Fischer's Mastery of Surgery

Annexure II -MODEL QUESTION PAPER
(PS: this is just a model; not all questions are based on phase 2 topics)

JSS Medical College
DEPARTMENT OF GENERAL SURGERY
Theory Internal Assessment for MBBS-phase2

Date:

Time:

Max Marks: 50 marks

Instructions to the candidates;

Answer all questions;

Answers to be specific&Write legibly

Draw a neat and labeled diagram whenever necessary

Time allotted is 1½ hours(90mins)

Long essays: 10 x 1 = 10 marks

1. A lady of 30years comes with h/o swelling in front of neck, on examination swelling moves with deglutition, multiple palpable cervical lymph nodes (1+3+3+3 marks) = 10

What is the probable diagnosis

Describe the etiopathogenesis of the above condition

Describe the management of the above condition

Enlist the complications of the surgery performed for the above condition

Short essays: 3x5 = 25 marks

2. Describe the pathophysiology and management of buerger's disease

3. Discuss the concept of ABO blood group antigens and Enumerate on effector mechanism of rejection

4. Discuss the ATLS principles of resuscitation in thoracic injuries

Short notes: 5x3 = 15 marks

5. Enumerate on effector mechanism of rejection
6. Enumerate on calculating the Glasgow coma score
7. Enlist the clinical features of primary hyperparathyroidism
8. Enumerate on CEAP classification system
9. Enumerate on different levels of amputations

Multiple choice questions

1 x 10= 10 marks

All questions are compulsory

1. Massive blood transfusion is defined in adults as
 - a.Whole blood volume in 24hrs
 - b.1/2 the blood volume in 24hrs
 - c.30% of blood volume in 24hrs
 - d.40% of blood volume in 24hrs
2. In severe injury, first to be maintained is?
 - a. hypotension
 - b. dehydration
 - c. airway
 - d. cardiac status
3. Rule of 10 is used in diagnosis of?
 - a. incidentaloma
 - b. pheochromocytoma
 - c. hyperparathyroidism
 - d. medullary carcinoma thyroid

4. Triple assessment used for diagnosis of

- a. carcinoma breast
- b. carcinoma thyroid
- c. carcinoma parathyroid
- d. carcinoma adrenals

5. used sterile gloves to be discarded in which color bin according to hospital waste management?

- a. blue
- b. black
- c. yellow
- d. red

6. a 26 year old woman presents with a palpable thyroid nodule, and needle biopsy demonstrates amyloid in the stroma of the lesion. A cervical lymph node is palpable on the same side as the lesion. The preferred treatment should be

- a. removal of the involved node, isthmus, a portion of the opposite lobe
- b. removal of the involved lobe, isthmus, a portion of the opposite lobe and the enlarged lymph node.
- c. total thyroidectomy and modified neck dissection on the side of the enlarged lymph node.
- d. total thyroidectomy and irradiation of the cervical lymph node.

7. lymphangiosarcoma occurs in

- a. lymphangiomas
- b. lymphomas
- c. lymphoedema
- d. serous cavity tumour

8. For confirming endotracheal tube placement following intubation of a patient in cardiac arrest, which ONE of the following methods is the most reliable?

- A. Waveform capnography
- B. Calorimetric end-tidal carbon dioxide (ETCO2)
- C. Oesophageal detector device
- D. Pulse oximetry

9. A 31-year-old male requires an emergency blood transfusion. Which ONE of the following statements is TRUE?

- A. O negative blood must be given if crossmatching can't be performed
- B. O positive blood can safely be given in this scenario
- C. Uncross-matched O positive blood should not be given in this case due to the higher risk of acute haemolytic reaction compared with O negative blood
- D. Type-specific blood takes approximately 20 minutes

10. The most common tumor of the adrenal gland is:

- (a) Adrenal cortical adenoma producing Conn's syndrome
- (b) Adrenal cortical adenoma producing Cushing's syndrome
- (c) Pheochromocytoma
- (d) Nonfunctioning adrenal adenoma (incidentaloma)

OBSTETRICS AND GYNAECOLOGY

GOALS AND OBJECTIVES

Syllabus in Obstetrics & Gynaecology for Phase 3 part 1 Professional MBBS (12 months)

GOALS:

The broad goal of teaching undergraduate students in Obstetrics and Gynaecology is that he/ she shall acquire understanding of Anatomy, Physiology and Pathophysiology of the reproductive system and gain the ability to optimally manage common conditions affecting it.

OBJECTIVES:

The objective of training the undergraduates in OBG is to ensure that he/she will be able to acquire the following proficiencies:

(a) KNOWLEDGE-

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

- 1 To outline abortion and MTP.
- 2 To understand medical disorder of pregnancy.
- 3 To understand mechanism and conduct of normal labour.

(b) SKILLS-

- Observe and assist

1 Performance of MTP

2 D&C

3 ARM

4 Normal Vaginal Delivery

5 LSCS

6 Instrumental delivery

7 Breech Delivery

-Counsel on safe methods of abortion and counselling of HIV, Hep B patients.

(c) INTEGRATION

The student should be able to integrate clinical skills with other disciplines

DEPARTMENTAL OBJECTIVE

a) Appreciate the socio-cultural, economic and demographic factors that influence the practice of OBG.

AFFECTIVE:

Communicate effectively with peers and teachers in various teaching learning activities in a manner that encourages participation and shared decision-making.

Demonstrate interpersonal and communication skills befitting a physician in order to discuss illness and its outcome with patient and family

Observe and assist minor & major surgical procedure.

Demonstrate and counselling for HIV, Hep B and safe abortion.

COURSE OUTCOME:

At the end of 4 weeks of clinical postings the learner shall be familiar with few common obstetric & gynaecological conditions and will be able to Demonstrate the skills required for assisting vaginal delivery, LSCS, minor procedures

3. TERMS AND TEACHING GUIDELINES**1. LECTURE**

Is a teaching learning method which includes traditional and interactive sessions involving a large group.

Hours of teaching 25

2. Seminar/ Tutorial / Integrated teaching

Seminar teaching method is a teaching model in which student work in small groups to discuss assigned questions and issues under the guidance of teachers .

Hours of teaching 35

3. Self directed learning

Self directed learning is defined as learning on one's own initiative,with the learner having primary responsibility for planning, implementing, and evaluating the effort.

Hours of teaching 5

4. SMALL GROUP DISCUSSION (BEDSIDE CLINICS/OPD Teaching as applied to CLINICAL POSTINGS in OBSTETRICS & GYNAECOLOGY)

Is an instructional method involving small groups of students in an appropriate learning context. (ward/OPD teaching as applied to CLINICAL POSTINGS in OBSTETRICS & GYNAECOLOGY)

The clinical postings in the third professional part I will be 18 hours per week X 4 weeks (3 hrs per day from Monday to Saturday as per GMER 2019, page.no.69).

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

Provides learners with experience in longitudinal patient care being part of the health care team with Hands-on care of patients in outpatient and Inpatient setting. The first clinical posting in second professional shall orient learners to the patient, their roles and the speciality.

6. CORE

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

7. NON – CORE

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

Syllabus at a glance

Obstetrics & Gynaecology for phase III part 1 Professional MBBS (12 months)

A. Number of teaching hours:

Teaching method	Hours
Lecture	25 hours
Tutorial/Seminar/	35 hours
Integrated Teaching	
Self directed learning	5 hours
Total	65 hours
Clinical Postings	18 hours/week x 4 weeks(MONDAY TO SATURDAY)
Total	72 hours

MINIMUM TEACHING HOURS WITH TOPICS

S.No	Topic	Competency no	Lecture (Hrs)
1	Abortion and MTP	9.1, 9.2	02
2	Ectopic pregnancy and GTN	9.3, 9.4	02
3	Antepartum Hemorrhage	10.1	02
4	HTN in pregnancy	12.1	02
5	UTI in pregnancy	12.5	01
6	HIV in pregnancy	12.7	01
7	Antepartum fetal monitoring	8.4	01
8	Labour	13.1,13.4,13.5	04
9	Abnormal labour	14.4	02
10	Obstructed labour	14.2	01
11	Contraception and puerperal sterilization	19.1,19.3,21.1	02

12	Vaginal discharge	22.2	01
13	AUB overview	24.1	01
14	Amenorrhea: Primary & Secondary	25.1	02
15	Fever in pregnancy	40.1	01
Total			25

Seminar/Tutorial/Integrated Teaching- 35 hours

S.No	Topic	Competency no	hours
1	Vaginal discharge	22.2	2
2	HIV in pregnancy	12.7	1
3	UTI in pregnancy	12.5	1
4	Contraception	19.1,19.3,21.1	3
5	Fever in pregnancy	40.1	1
6	ARM	13.3	1
7	LSCS	15.1,37.1	2
8	D&C	37.4	1
9	Instrumental Delivery	14.4, 15.1, 15.2, 37.6	3
10	MTP	9.2,37.7	2
11	Labour	13.1,13.4,13.5	4
12	APH	10.1	2
13	Blood and blood Products	10.2	2
14	Hyperemesis	9.5	1
15	Antepartum fetal monitoring	8.4	2
16	Abortion	9.1,9.2	1
17	USG in pregnancy	8.8	1

18	Fibroid	29.1	1
19	Vaccination in pregnancy	8.7	1
20	Ectopic pregnancy	9.3	1
21	GTN	9.4	1
22	Abnormal labor	14.4	1

Self Directed Learning:5Hrs

S.No	Topic	Competency no	Hours
1.	Blood Products	19.3	1
2.	Post operative care	15.1	1
3.	AUB overview	24.1	1
4.	Newer contraceptives	19.3	1
5.	Role of USG in gynecology	8.8	1

Clinical postings - 18 hours per week X 4 weeks - 3 hrs per day from Monday to Saturday

1	Pelvic assessment in a model
2	MTP evacuation
3	Normal Labour
4	LSCS
5	D&C
6	ARM
7	Instrumental Delivery
8	Breech Delivery
9	Counselling- Safe abortion, HIV, Hep B

TOPIC : ANTENATAL CARE
NUMBER OF COMPETENCIES : 8
NUMBER OF PROCEDURES REQUIRE CERTIFICATION : NIL

OG8.4 COMPETENCY: DESCRIBE AND DEMONSTRATE CLINICAL MONITORING OF FETAL AND MATERNAL WELL BEING								
	LEARNING OBJECTIVE	DO-MAIN K/S/ A/C	LEVEL K/ KH/ SH/P	CO RE Y/ N	T-L METH- OD	AS- SES- MENT METH- OD	INTE- GRA- TION	RE- MARKS
1.	DESCRIBE THE CLINICAL MONITORING OF MATERNAL WELL BEING IN AN ANTENATAL PERIOD CORRECTLY	K/S	KH/SH	Y	LECTURE DOAP BEDSIDE CLINIC	SAQ VIVA OSCE	FO- RENSIC MEDI- CINE	PHASE 3 PART1
2	DEMONSTRATE THE LOCALISATION OF FETAL HEART IN AN ANTENATAL PATIENT USING STETHOSCOPE OR A FETAL DOPPLER CORRECTLY	K/S	KH/SH	Y				PHASE 3 PART1
3	DESCRIBE ATLEAST 4 TESTS TO ASSES ANTEPARTUM FETAL WELL BEING	K/S	KH/SH	Y				PHASE 3 PART1
4	INTERPRET THE FINDINGS OF GIVEN CTG RECORD IN A GIVEN CASE SCENARIO	K/S	KH/SH	Y				PHASE 3 PART1

ENUMERATE INDICATIONS FOR AND TYPE OF VACCINATION IN PREGNANCY

OG8.7 COMPETENCY: DESCRIBE AND DEMONSTRATE CLINICAL MONITORING OF FETAL AND MATERNAL WELL BEING	

	LEARNING OBJECTIVE	DO- MAIN K/S/ A/C	LEVEL K/ KH/ SH/P	CORE Y/N	T-L METHOD	ASSES- MENT METH- OD	IN- TE- GRA- TION	RE- MARKS
1.	ENLIST THE DISEASE THAT CAN BE PREVENTED DURING PREGNANCY BY VACCINATION	K	K	Y	LECTURE SDG BEDSIDE CLINIC	SAQ VIVA OSCE LONG CASE	COM- MU- NITY MEDI- CINE	PHASE 3 PART1
2.	DISCUSS THE INDICATIONS, CONTRAINDICATIONS SAFETY PROFILE DOSAGE AND ROUTE OF ADMINISTRATION OF ALL VACCINES RECOMMENDED BY WHO/ EPI DURING PREGNANCY CORRECTLY	K	K					PHASE 3 PART 1
OG8.8	COMPETENCY: ENUMERATE THE INDICATIONS AND DESCRIBE THE INVESTIGATIONS INCLUDING THE USE OF ULTRASOUND IN THE INITIAL ASSESSMENT AND MONITORING IN PREGNANCY							
	LEARNING OBJECTIVE	DO- MAIN K/S/ A/C	LEVEL K/ KH/ SH/P	CORE Y/N	T-L METHOD	ASSES- MENT METH- OD	IN- TE- GRA- TION	RE- MARKS
1.	ENUMERATE LIST OF INVESTIGATION ADVISED TO LADY IN 1 ST TRIMESTER BOOKING VISIT	K/S	KH/SH	Y	LECTURE SDG BEDSIDE CLINIC	SAQ VIVA OSCE LONG CASE		PHASE 3 PART1
2.	INTERPRET THE TEST FOR SCREENING OF DIABETES CORRECTLY	K/S	KH/SH	Y				PHASE 3 PART1
2.	ENUMERATE INDICATIONS OF USG IN FIRST, SECOND AND THIRD TRIMESTER ATLEAST 4 CORRECTLY	K/S	KH/SH	Y				PHASE 3 PART1

2.	ENUMERATE AND DESCRIBE CLINICAL ULTRASONOGRAPHIC AND CARDIOTOCOGRAPHIC METHODS OF ANTENATAL FETAL SURVILLANCE AND THEIR INTERPRETATION IN EACH TRIMESTER OF PREGNANCY CORRECTLY ENUMERATE AND DISCUSS USES OF ULTRASONOGRAPHY IN GYNAECOLOGY	K/S	KH/SH	Y				PHASE 3 PART1
----	---	-----	-------	---	--	--	--	---------------

TOPIC : COMPLICATIONS IN EARLY PREGNANCY

NUMBER OF COMPETENCIES : 5

NUMBER OF PROCEDURES REQUIRE CERTIFICATION : NIL

OG9.1	COMPETENCY: CLASSIFY, DEFINE AND DISCUSS THE AETIOLOGY AND MANAGEMENT OF ABORTIONS INCLUDING THREATENED, INCOMPLETE, INEVITABLE, MISSED AND SEPTIC ABORTION							
	LEARNING OBJECTIVE	DO-MAIN K/S/ A/C	LEVEL K/KH/ SH/P	CORE Y/N	T-L METH- OD	AS- SES- MENT METH- OD	INTE- GRA- TION	RE- MARKS
1.	ENUMERATE AT LEAST 5 CAUSES OF BLEEDING PER VAGINUM IN EARLY PREGNANCY	K	KH	Y	LECTURE SGD	LAQ SAQ VIVA OSCE		PHASE 3 PART1
2	DEFINE ABORTION AS PER WHO CORRECTLY	K	KH	Y				PHASE 3 PART1
3	DESCRIBE CLASSIFICATION OF TYPES OF ABORTION	K	KH	Y				PHASE 3 PART1
4	ENLIST AT LEAST 10 ETIOLOGICAL FACTORS OF ABORTION	K	KH	Y				PHASE 3 PART1

5	DESCRIBE THE CLINICAL FEATURES, USG FINDINGS AND MANAGEMENT OF THREATENED ABORTION CORRECTLY	K	KH	Y				PHASE 3 PART1
6	DESCRIBE THE CLINICAL FEATURES, USG FINDINGS AND MANAGEMENT OF INEVITABLE ABORTION CORRECTLY	K	KH	Y				PHASE 3 PART1
7	DESCRIBE THE CLINICAL FEATURES, USG FINDINGS AND MANAGEMENT OF INCOMPLETE ABORTION CORRECTLY	K	KH	Y				PHASE 3 PART1
8	DESCRIBE THE CLINICAL FEATURES, USG FINDINGS AND MANAGEMENT OF COMPLETE ABORTION CORRECTLY	K	KH	Y				PHASE 3 PART1
9	DESCRIBE THE CLINICAL FEATURES, USG FINDINGS AND MANAGEMENT OF MISSED ABORTION CORRECTLY	K	KH	Y				PHASE 3 PART1
10	DEFINE SEPTIC ABORTION	K	KH	Y				PHASE 3 PART1
11	ENLIST 4 CAUSES OF SEPTIC ABORTION	K	KH	Y				PHASE 3 PART1
12	DESCRIBE THE CLINICAL FEATURES, USG FINDINGS AND MANAGEMENT OF SEPTIC ABORTION CORRECTLY	K	KH	Y				PHASE 3 PART1
13	ENLIST 4 IMMEDIATE AND 2 LONG TERM COMPLICATIONS OF SEPTIC ABORTION	K	KH	Y				PHASE 3 PART1
14	IDENTIFY THE TYPE OF ABORTION BASED ON THE GIVEN CASE SCENARIO COMPLETELY	K/S	KH	Y				PHASE 3 PART1

OG 9.2	COMPETENCY: DESCRIBE THE STEPS AND OBSERVE/ ASSIST IN THE PERFORMANCE OF AN MTP EVACUATION							
	LEARNING OBJECTIVE	DO- MAIN K/S/ A/C	LEVEL K/KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METHOD	INTE- GRA- TION	RE- MARKS
1.	ENUMERATE THE VARIOUS MEDICAL METHODS OF MTP FOR FIRST AND SECOND TRIMESTER OF PREGNANCY	K/S/ A/C	K/KH	Y	LEC-TURE SGD DOAP	VIVA OSCE		PHASE 3 PART1
2.	ENUMERATE THE SURGICAL METHODS, THEIR INDICATION AND CONTRAINDICATION OF MTP	K/S/ A/C	K/KH	Y				PHASE 3 PART1
3.	COUNSEL A LADY REQUESTING MTP REGARDING COMPLICATIONS, FOLLOW UP AND POST ABORTION CARE AND CONTRACEPTION IN A SOCIO-CULTURALLY SENSITIVE MANNER TO THE SATISFACTION OF OBSERVER	K/S/ A/C	K/KH	Y				PHASE 3 PART1
OG 9.3	COMPETENCY: DISCUSS THE AETIOLOGY , CLINICAL FEATURES, DIFFERENTIAL DIAGNOSIS OF ACUTE ABDOMEN IN EARLY PREGNANCY (WITH FOCUS ON ECTOPIC PREGNANCY) AND ENUMERATE PRINCIPLES OF MEDICAL AND SURGICAL MANAGEMENT							
	LEARNING OBJECTIVE	DO- MAIN K/S/ A/C	LEVEL K/KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METHOD	INTE- GRA- TION	RE- MARKS
1.	ENLIST THE COMMON CAUSES OF ACUTE ABDOMEN IN EARLY PREGNANCY (ATLEAST 5)	K	KH	Y	LEC-TURE SGD	LAQ SAQ VIVA MCQ		PHASE 3 PART1
2.	DEFINE ECTOPIC PREGNANCY CORRECTLY	K	KH	Y				PHASE 3 PART1

3.	ENUMERATE DIFF. TYPES OF ECTOPIC PREGNANCY ACCORDING TO ANATOMICAL SITE CORRECTLY	K	KH	Y				PHASE 3 PART1
4.	ENUMERATE 4 CAUSES OF ECTOPIC PREGNANCY	K	KH	Y				PHASE 3 PART1
5.	DISCUSS THE CLINICAL FEATURES OF ECTOPIC PREGNANCY CORRECTLY	K	KH	Y				PHASE 3 PART1
6.	DESCRIBE THE USE OF BETA HCG AND USG IN DIAGNOSIS OF ECTOPIC PREGNANCY	K	KH	Y				PHASE 3 PART1
7.	DISCUSS THE PRINCIPLES OF MEDICAL MANAGEMENT OF ECTOPIC PREGNANCY CORRECTLY	K	KH	Y				PHASE 3 PART1
8.	DISCUSS THE DIFFERENT SURGICAL TECHNIQUES FOR THE MANAGEMENT OF TUBAL ECTOPIC PREGNANCY THROUGH LAPAROTOMY AND LAPAROSCOPY.	K	KH	Y				PHASE 3 PART1

NO. OG9.4 COMPETENCY: CLINICAL FEATURES, LABORATORY, ULTRASONOGRAPHY, DIFFERENTIAL DIAGNOSIS PRINCIPLE OF MANAGEMENT AND FOLLOW UP OF GESTATIONAL TROPHOBLASTIC NEOPLASMS								
	LEARNING OBJECTIVE	DO-MAIN K/S/A/C	LEVEL K/KH/SH/P	CORE Y/N	T-L METH-OD	ASSES-MENT METHOD	INTE-GRA-TION	RE-MARKS
1.	DEFINE GTD ACCORDING TO WHO / FIGO DEFINITION CORRECTLY	K	KH	Y	LEC-TURE SGD	LAQ SAQ VIVA MCQ		PHASE 3 PART1
2	DEFINE VESICULARMOLE CORRECTLY	K	KH					PHASE 3 PART1
3	DESCRIBE CLASSIFICATION OF GTD CORRECTLY	K	KH					PHASE 3 PART1
4	DESCRIBE TYPES OF VESICULAR MOLE CORRECTLY	K	KH					PHASE 3 PART1

5	COMPARE AND CONTRAST PARTIAL AND COMPLETELY VESICULAR MOLE ON BASIS OF KARYOTYPE, CLINICAL FEATURES, INVESTIGATIONS CORRECTLY	K	KH					PHASE 3 PART1
6	DESCRIBE MANAGEMENT OF PARTIAL AND COMPLETELY VESICULARMOLE CORRECTLY	K	KH					PHASE 3 PART1
7	DESCRIBE THE FOLLOW-UP AND CONTRACEPTIVE ADVICE OF PARTIAL AND COMPLETE VESICULAR MOLE CORRECTLY	K	KH					PHASE 3 PART1

NO. OG 9.5	COMPETENCY: DESCRIBE THE ETIOPATHOLOGY, IMPACT ON MATERNAL AND FETAL HEALTH AND PRINCIPLES OF MANAGEMENT OF HYPERMESIS GRAVIDARUM	DO-MAIN K/S/A/C	LEVEL K/ KH/ SH/P	CORE Y/N	T-L METH-OD	ASSES-MENT METHOD	INTE-GRATI-ON	RE-MARKS
1.	LEARNING OBJECTIVE							
1.	DEFINE HYPERMESIS GRAVIDARUM CORRECTLY	K	KH	Y	LEC-TURE SGD	LAQ SAQ VIVA MCQ		PHASE 3 PART1
2	DISCUSS 4 FACTORS RELATED TO ETIOPATHOLOGY OF HYPEREMESIS GRAVIDARUM	K	KH	Y				PHASE 3 PART1
3	ENUMERATE 5 CAUSES OF EXCESSIVE VOMITING IN PREGNANCY	K	KH	Y				PHASE 3 PART1
4	ORDER APPROPRIATE INVESTIGATIONS BASED ON AETIOLOGICAL FACTORS IN A CASE OF HYPEREMESIS	K	KH	Y				PHASE 3 PART1

5	IDENTIFY THE NEED FOR ADMISSION IN A PATIENT ON THE BASIS OF HISTORY EXAMINATION AND INVESTIGATION IN A PAPER CASE CORRECTLY	K	KH	Y				PHASE 3 PART1
6	DESCRIBE THE MANAGEMENT OF HYPEREMESIS GRAVIDARUM CORRECTLY	K	KH	Y				PHASE 3 PART1

TOPIC : ANTEPARTUM HEMORRHAGE

NUMBER OF COMPETENCIES : (02)

NUMBER OF PROCEDURES REQUIRE CERTIFICATION : NIL

NO. OG 10.1	COMPETENCY: DEFINE ,CLASSIFY&DESCRIBE THE ETIOLOGY, PATHOGENESIS,CLINICAL FEATURES,ULTRASONOGRAPHY,DIFFERENTIAL DIAGNOSIS AND MANAGEMENT OF ANTEPARTUM HEMORRHAGE							
	LEARNING OBJECTIVE	DO-MAIN K/S/ A/C	LEVEL K/ KH/ SH/P	CORE Y/N	T-L METH-OD	ASSES-MENT METHOD	INTE-GRA-TION	RE-MARKS
1.	DEFINE AND CLASSIFY ANTEPARTUM HEMORRHAGE CORRECTLY	K	KH	Y	LEC-TURE BED-SIDE CLINIC	LAQ SAQ MCQ VIVA		PHASE 3 PART1
2.	ENUMERATE AT LEAST 6 CAUSES OF ANTEPARTUM HEMORRHAGE	K	KH	Y				PHASE 3 PART 1
3	DESCRIBE THE TYPES OF PLACENTA PREVIA CORRECTLY	K	KH	Y				PHASE 3 PART 1
4	ENUMERATE AT LEAST 4 CAUSES OF PLACENTA PREVIA	K	KH	Y				PHASE 3 PART 1

11	ENUMERATE AT LEAST 4 THE CAUSES OF ABRUPTIOPLACENTAE	K	KH	Y				PHASE 3 PART 1
12	DESCRIBE THE CLINICAL FEATURES OF ABRUPTIOPLACENTAE CORRECTLY	K	KH	Y				PHASE 3 PART 1
13	LIST THE INVESTIGATIONS FOR DIAGNOSIS AND MANAGEMENT OF A CASE OF ABRUPTIOPLACENTAE	K	KH	Y				PHASE 3 PART 1
14	DISCUSS THE MANAGEMENT OF ABRUPTIOPLACENTAE CORRECTLY	K	KH	Y				PHASE 3 PART 1
15	ENUMERATE THE MATERNAL AND FETAL COMPLICATIONS OF ABRUPTIOPLACENTAE (3 EACH)	K	KH	Y				PHASE 3 PART 1
16	COMPARE AND CONTRAST PLACENTAPREVIA AND ABRUPTIOPLACENTAE ON BASIS OF HISTORY AND EXAMINATION CORRECTLY	K	KH	Y				PHASE 3 PART 1

NO. OG 10.2	COMPETENCY: ENUMERATE THE INDICATIONS AND DESCRIBE THE APPROPRIATE USE OF BLOOD AND BLOOD PRODUCTS, THEIR COMPLICATIONS AND MANAGEMENT							
	LEARNING OBJECTIVE	DO-MAIN K/S/ A/C	LEVEL K/ KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METHOD	INTE- GRA- TION	RE- MARKS
1.	ENUMERATE THE INDICATIONS OF BLOOD TRANSFUSION IN OBGYN	K	KH	Y	LECTURE SGD MCQ BED-SIDE CLINIC	SAQ VIVA MCQ	PATHOLOGY TRANSFUSION MEDICINE	PHASE 3 PART1
2.	ENLIST THE BLOOD PRODUCTS AND THEIR USES CORRECTLY	K	KH	Y				PHASE 3 PART 1
3	DISCUSS THE IMMEDIATE AND DELAYED COMPLICATIONS OF BLOOD AND BLOOD PRODUCT TRANSFUSION CORRECTLY	K	KH	Y				PHASE 3 PART 1

4	DESCRIBE THE STEPS OF BLOOD TRANSFUSION CORRECTLY	K	KH	Y				PHASE 3 PART 1
5	DESCRIBE THE MANAGEMENT OF BLOOD TRANS-FUSION REACTION	K	KH	Y				PHASE 3 PART 1

TOPIC : MEDICAL DISORDERS IN PREGNANCY

NUMBER OF COMPETENCIES : 8

NUMBER OF PROCEDURES REQUIRE CERTIFICATION : NIL

OG 12.1	COMPETENCY: DEFINE, CLASSIFY AND DESCRIBE THE ETIOLOGY AND PATHOPHYSIOLOGY, EARLY DETECTION, INVESTIGATIONS, PRINCIPLES OF MANAGEMENT OF HYPERTENSIVE DISORDERS OF PREGNANCY AND ECLAMPSIA, COMPLICATIONS OF ECLAMPSIA	DO-MAIN K/S/ A/C	LEVEL K/ KH/ SH/P	CORE Y/N	T-L METH-OD	ASSES-MENT METHOD	INTE-GRATI-ON	RE-MARKS
.1	DESCRIBE THE CLASSIFICATION OF HYPERTENSIVE DISORDERS IN PREGNANCY	K/S/ A/C	SH	Y	LEC-TURE SGD DRILL BED-SIDE CLINIC	LAQ SAQ VIVA MCQ LONG CASE	MEDI-CINE	PHASE 3 PART1
2	DESCRIBE THE CUT OFF CRITERIA OF SYSTOLIC AND DIASTOLIC BLOOD PRESSURE FOR HYPERTENSION IN PREGNANCY	K/S/ A/C	SH	Y				PHASE 3 PART1
3	DEFINE GESTATIONAL HYPERTENSION	K/S/ A/C	SH	Y				PHASE 3 PART1

4	DISCUSS THE TREATMENT OF GESTATIONAL HYPERTENSION	K/S/ A/C	SH	Y				PHASE 3 PART1
5	DEFINE PRE-ECLAMPSIA AND ECLAMPSIA	K/S/ A/C	SH	Y				PHASE 3 PART1
6	DESCRIBE ETIOPATHOLOGY OF PE-ECLAMPSIA	K/S/ A/C	SH	Y				PHASE 3 PART1
7	ENUMERATE AT LEAST 4 RISK FACTORS FOR HDP	K/S/ A/C	SH	Y				PHASE 3 PART1
8	COMPARE AND CONTRAST NON-SEVERE AND SEVERE PRE-ECLAMPSIA	K/S/ A/C	SH	Y				PHASE 3 PART1
9	OUTLINE PRINCIPLES OF MANAGEMENT OF PRE-ECLAMPSIA	K/S/ A/C	SH	Y				PHASE 3 PART1
10	ENUMERATE CAUSES OF FITS IN PREGNANCY	K/S/ A/C	SH	Y				PHASE 3 PART1
11	DESCRIBE DIFFERENTIAL DIAGNOSIS OF CONVULSIONS IN PREGNANCY	K/S/ A/C	SH	Y				PHASE 3 PART1
12	DESCRIBE THE STEPWISE MANAGEMENT OF ECLAMPSIA	K/S/ A/C	SH	Y				PHASE 3 PART1
13	ENUMERATE ATLEAST 4 FETAL AND 4 MATERNAL COMPLICATIONS OF PRE-ECLAMPSIA AND ECLAMPSIA	K/S/ A/C	SH	Y				PHASE 3 PART1

14	DEMONSTRATE KNOWLEDGE, SKILL, TEAM WORK LEADERSHIP QUALITIES, COMMUNICATION SKILLS AND EMPATHY WHILE MANAGING A CASE OF ECLAMPSIA DURING AN ECLAMPSIA DRILL	K/S/A/C	SH	Y				PHASE 3 PART1
OG 12.5	COMPETENCY: DESCRIBE THE CLINICAL FEATURES, DETECTION, EFFECTS OF PREGNANCY ON DISEASE AND IMPACT OF THE DISEASE ON PREGNANCY, COMPLICATIONS AND MANAGEMENT OF URINARY TRACT INFECTION IN PREGNANCY							
	LEARNING OBJECTIVE	DO- MAIN K/S/ A/C	LEVEL K/ KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METHOD	INTE- GRA- TION	RE- MARKS
1	DEFINE ASYMPTOMATIC BACTERIURIA	K/S/C	SH	Y	LECTURE SGD BED-SIDE CLINIC	SAQ MCQ VIVA LONG CASE	MICROBIOLOGY	PHASE 3 PART1
2	DESCRIBE CLINICAL FEATURES OF UTI IN PREGNANCY (ATLEAST 3)	K/S/C	SH	Y				PHASE 3 PART1
3	DISCUSS EFFECTS OF UTI IN PREGNANCY (AT-LEAST 3)	K/S/C	SH	Y				PHASE 3 PART1
4	ENUMERATE DRUGS WHICH CAN USED FOR TREATING UTI IN PREGNANCY	K/S/C	SH	Y				PHASE 3 PART1
5	DISCUSS MANAGEMENT OF UTI IN PREGNANCY	K/S/C	SH	Y				PHASE 3 PART1
6	ENUMERATE INDICATIONS OF LONG TERM SUPPRESSIVE THERAPY IN PREGNANCY	K/S/C	SH	Y				PHASE 3 PART1
7	COUNSEL A WOMEN FOR CORRECT METHOD OF COLLECTION OF URINE SAMPLE FOR CULTURE AND SENSITIVITY IN A SIMULATED ENVIRONMENT TO THE OBSERVER'S SATISFACTION	K/S/C	SH	Y				PHASE 3 PART1

OG 12.7	COMPETENCY: DESCRIBE AND DISCUSS SCREENING, RISK FACTORS, MANAGEMENT OF MOTHER AND NEWBORN WITH HIV							
	LEARNING OBJECTIVE	DO-MAIN K/S/ A/C	LEVEL K/KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METH- OD	INTE- GRA- TION	RE- MARKS
1	ENUMERATE THE RELAVENT POINTS FOR PRE-CONCEPTION COUNSELING OF A HIV POSITIVE LADY	K	KH	Y	LECTURE SGD BEDSIDE CLINIC	LAQ SAQ MCQ VIVA LONG CASE		PHASE 3 PART1
2	DISCUSS MANAGEMENT OF A PATIENT WHO IS HIV POSITIVE BEFORE PREGNANCY AND FOR THOSE TESTING POSITIVE FOR FIRST TIME IN PREGNANCY IN ANTEPARTUM PERIOD.	K	KH	Y				PHASE 3 PART1
3	DISCUSS MANAGEMENT OF PATIENT HAVING HIV DURING LABOR	K	KH	Y				PHASE 3 PART1
4	DISCUSS MANAGEMENT OF NEWBORN OF HIV POSITIVE MOTHER	K	KH	Y				PHASE 3 PART1

TOPIC : LABOR
NUMBER OF COMPETENCIES : 4
NUMBER OF PROCEDURES REQUIRE CERTIFICATION : 1

OG 13.1	COMPETENCY: 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							
	LEARNING OBJECTIVE	DO- MAIN K/S/ A/C	LEVEL K/KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METH- OD	INTE- GRA- TION	RE- MARKS
1	DEFINE NORMAL LABOR	K/S/ A/C	SH/P	Y	LEC- TURE SGD DOAP	SAQ MCQ VIVA OSCE		PHASE 3 PART1
2	ENUMERATE THE SIGNS AND SYMPTOMS OF LABOR CORRECTLY	K/S/ A/C	SH/P	Y				PHASE 3 PART1
3	COMPARE AND CONTRAST FALSE AND TRUE LABOR PAINS CORRECTLY	K/S/ A/C	SH/P	Y				PHASE 3 PART1
4	DISCUSS THE PHYSIOLOGY OF FETUS, PELVIS AND FORCES DURING LABOR	K/S/ A/C	SH/P	Y				PHASE 3 PART1
5	DESCRIBE THE 4 STAGES OF LABOR AND THEIR NORMAL DURATION	K/S/ A/C	SH/P	Y				PHASE 3 PART1
6	DEMONSTRATE THE CARDINAL MOVEMENTS OF LABOR ON MANNIKIN	K/S/ A/C	SH/P	Y				PHASE 3 PART1
7	DESCRIBE THE 4 STAGES OF LABOR AND THEIR NORMAL DURATION	K/S/ A/C	SH/P	Y				PHASE 3 PART1
8	DEFINE POSITION, LIE, PRESENTING PART, ENGAGEMENT, DENOMINATOR, VERTEX, MOULDING, CAPUT SUCCEDEDNUM	K/S/ A/C	SH/P	Y				PHASE 3 PART1

9	DESCRIBE THE COMPONENTS OF RESPECTFUL MATERNITY CARE DURING LABOR ACCORDING TO WHO	K/S/ A/C	SH/P	Y				PHASE 3 PART1
10	DESCRIBE THE MANAGEMENT OF 1 ST STAGE OF LABOR ACCORDING TO WHO RECOMMENDATIONS	K/S/ A/C	SH/P	Y				PHASE 3 PART1
11	LIST THE COMPONENTS OF WHO PARTOGRAM/ LABOR CARE GUIDE CORRECTLY	K/S/ A/C	SH/P	Y				PHASE 3 PART1
12	DOCUMENT THE CLINICAL FINDINGS FROM A GIVEN CASE SCENARIO/ACTUAL PATIENT IN A PARTOGRAM/ LABOR CARE GUIDE CORRECTLY	K/S/ A/C	SH/P	Y				PHASE 3 PART1
13	MONITOR LABOR IN 5 PATIENTS USING A PARTOGRAM/LABOR CARE GUIDE AND DOCUMENT IN THE LOGBOOK	K/S/ A/C	SH/P	Y				PHASE 3 PART1
14	DESCRIBE SIGNS OF FETAL DISTRESS IN LABOR	K/S/ A/C	SH/P	Y				PHASE 3 PART1
15	INTERPRET THE ABNORMALITIES IN LABOR FROM A GIVEN PARTOGRAM/LABOR CARE GUIDE CORRECTLY	K/S/ A/C	SH/P	Y				PHASE 3 PART1
16	DESCRIBE AT LEAST 2 COMMON NON-PHARMACOLOGICAL AND PHARMACOLOGICAL METHODS FOR PAIN RELIEF IN LABOR	K/S/ A/C	SH/P	Y				PHASE 3 PART1
20	DEFINE AUGMENTATION OF LABOR	K/S/ A/C	SH/P	Y				PHASE 3 PART1
21	DESCRIBE 2 COMMON METHODS OF AUGMENTATION OF LABOR	K/S/ A/C	SH/P	Y				PHASE 3 PART1
22	LIST AT LEAST 2 FETAL AND 2 MATERNAL COMPLICATIONS OF INDUCTION AND AUGMENTATION OF LABOR	K/S/ A/C	SH/P	Y				PHASE 3 PART1
23	DESCRIBE CLINICAL FEATURES OF HYPERSTIMULATION	K/S/ A/C	SH/P	Y				PHASE 3 PART1
24	DESCRIBE THE IMMEDIATE MANAGEMENT OF HYPERSTIMULATION IN LABOR DURING INDUCTION/AUGMENTATION	K/S/ A/C	SH/P	Y				PHASE 3 PART1

25	DEFINE ACTIVE MANAGEMENT OF THIRD STAGE OF LABOR	K/S/A/C	SH/P	Y				PHASE 3 PART1
26	DESCRIBE THE PHYSIOLOGY OF THIRD STAGE OF LABOR	K/S/A/C	SH/P	Y				PHASE 3 PART1
27	LIST THE THREE STEPS OF ACTIVE MANAGEMENT OF THIRD STAGE OF LABOR	K/S/A/C	SH/P	Y				PHASE 3 PART1
28	COMPARE AND CONTRAST THE EXPECTANT AND ACTIVE MANAGEMENT OF THIRD STAGE OF LABOR	K/S/A/C	SH/P	Y				PHASE 3 PART1
29	DESCRIBE MATERIAL MONITORING OF 4TH STAGE OF LABOR	K/S/A/C	SH/P	Y				PHASE 3 PART1

OG 13.5	COMPETENCY: OBSERVE AND ASSIST THE CONDUCT OF NORMAL AVGINAL DELIVERY							
	LEARNING OBJECTIVE	DO-MAIN K/S/A/C	LEVEL K/KH/ SH/P	CORE Y/N	T-L METH-OD	ASSES-MENT METH-OD	INTE-GRA-TION	RE-MARKS
1	IDENTIFY THE 2 ND STAGE OF LABOR CORRECTLY	K/S/A/C	SH/P	Y	DOAP	LOG-BOOK		PHASE 3 PART1
2	PREPARE HIMSELF/HERSELF, INSTRUMENTS, DRUGS AND PATIENT FOR CONDUCT OF SECOND STAGE OF LABOR AS PER CHECKLIST PROVIDED	K/S/A/C	SH/P	Y				PHASE 3 PART1
3	ASSIST IN/OBSERVE THE CONDUCT OF 2 ND STAGE OF LABOR AS PER CHECKLIST PROVIDED	K/S/A/C	SH/P	Y				PHASE 3 PART1
4	PERFORM/ASSIST IN CONDUCT OF THIRD STAGE ACCORDING TO AMTS AND DOCUMENT IT WITH RELEVANT DETAILS IN LOGBOOK	K/S/A/C	SH/P	Y				PHASE 3 PART1
5	DOCUMENT THE RELEVANT INFORMATION AND DELIVERY NOTES AFTER CONDUCT OF VAGINAL DELIVERY CORRECTLY IN THE LOGBOOK IN 10 VAGINAL DELIVERIES	K/S/A/C	SH/P	Y				PHASE 3 PART1

TOPIC : MATERNAL PELVIS
NUMBER OF COMPETENCIES : 2
NUMBER OF PROCEDURES REQUIRE CERTIFICATION : NIL

OG 14.2	COMPETENCY: DISCUSS THE MECHANISM OF NORMAL LABOR. DEFINE AND DESCRIBE OBSTRUCTED LABOR, ITS CLINICAL FEATURES; PREVENTION AND MANAGEMENT							
	LEARNING OBJECTIVE	DO- MAIN K/S/ A/C	LEVEL K/KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METH- OD	INTE- GRA- TION	RE- MARKS
1	SEE LOS FOR COMPETENCY OG 13.1 FOR MECHANISM OF LABOR	K/S/ A/C	SH/P	Y	LECTURE SGD BEDSIDE CLINIC	SAQ MCQ VIVA		PHASE 3 PART1

OG 14.4	COMPETENCY: DESCRIBE AND DISCUSS THE CLASSIFICATION , DIAGNOSIS AND MANAGEMENT OF ABNORMAL LABOUR							
	LEARNING OBJECTIVE	DO- MAIN K/S/ A/C	LEVEL K/KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METH- OD	INTE- GRA- TION	RE- MARKS
30	DEFINE CORD PRESENTATION AND CORD PROLAPSE	K	KH	Y	LECTURE SGD BED-SIDE CLINIC	SAQ MCQ VIVA		PHASE 3 PART1
31	ENUMERATE TWO IMPORTANT CAUSES OF CORD PROLAPSE	K	KH	Y				PHASE 3 PART1

32	DESCRIBE THE CLINICAL DIAGNOSIS OF CORD PROLAPSE AND CORD PRESENTATION	K	KH	Y				PHASE 3 PART1
33	OUTLINE THE IMMEDIATE MANAGEMENT OF CORD PROLAPSE	K	KH	Y				PHASE 3 PART1
	FORCEPS 15.1							
10.	IDENTIFY AND DESCRIBE THE PART OF AN OUTLET FORCEPS	K	KH	Y				PHASE 3 PART 1
11.	CLASSIFY TYPES OF FORCEPS OPERATION	K	KH	Y				PHASE 3 PART 1
12.	ENUMERATE ATLEAST 5 PRE REQUISITES FOR OUTLET FORCEPS APPLICATION	K	KH	Y				PHASE 3 PART 1
13.	LIST INDICATIONS OF FORCEPS APPLICATION AND CONTRAINDICATIONS OF FORCEPS DELIVERY	K	KH	Y				PHASE 3 PART 1
14.	DEMONSTRATE THE STEPS OF OUTLET FORCEPS APPLICATION ON A MANNIKIN	K	KH	Y				PHASE 3 PART 1
15.	DISCUSS MATERNAL AND NEONATAL COMPLICATIONS WITH FORCEPS DELIVERY	K	KH	Y				PHASE 3 PART 1
	VACUUM DELIVERY							
16.	IDENTIFY AND DESCRIBE THE PARTS OF OBSTETRIC VACUUM	K	KH					PHASE 3 PART 1

17.	LIST INDICATIONS AND CONTRAINDICATIONS OF VACUUM DELIVERY	K	KH					PHASE 3 PART 1
18.	ENUMERATE THE PRE REQUISITES FOR VACUUM DELIVERY	K	KH					PHASE 3 PART 1
19.	DEMONSTRATE THE STEPS OF VACUUM APPLICATION AND DELIVERY ON A MANNIKIN	K	KH					PHASE 3 PART 1
20.	DISCUSS THE MATERNAL AND NEONATAL COMPLICATIONS WITH VACUUM DELIVERY	K	KH					PHASE 3 PART 1
21.	COMPARE AND CONTRAST THE ADVANTAGES AND DISADVANTAGES OF FORCEPS AND VACUUM FOR ASSISTING VAGINAL DELIVERY	K	KH					PHASE 3 PART
22.	DESCRIBE POST OP CARE FOLLOWING OPERATIVE VAGINAL DELIVERY	K	KH					PHASE 3 PART 1
CAESAREAN SECTION								
23.	DEFINE CS	K	KH	Y				PHASE 3 PART 1
24.	ENUMERATE INDICATIONS OF CS	K	KH	Y				PHASE 3 PART 1
25.	COMPARE AND CONTRAST UPPER SEGMENT AND LOWER SEGMENT CS IN TERMS OF INDICATIONS, TECHNIQUE, ADVANTAGES AND DISADVANTAGES	K	KH	Y				PHASE 3 PART 1
26.	DESCRIBE THE PRE OP PREPARATION FOR CS	K	KH	Y				PHASE 3 PART 1

27.	DESCRIBE THE STEPS OF LSCS	K	KH	Y				PHASE 3 PART 1
28.	DISCUSS THE POST OP CARE AND TASKS AFTER CS	K	KH	Y				PHASE 3 PART 1
29.	DISCUSS FETAL AND MATERNAL COMPLICATIONS INTRA OP ,POST OP, LATE	K	KH	Y				PHASE 3 PART 1
30.	COUNSEL A LADY AT THE TIME OF DISCHARGE EGARDING POST CS CARE AND FOLLOW UP IN A SOCIO CULTURALLY SENSITIVE AND EMPATHETIC MANNER TO THE SATISFACTION OF THE OBSERVER	K	KH/SH	Y				PHASE 3 PART 1
31	DISCUSS POSTOPERATIVE CARE IN CESAREAN DELIVERY PATIENTS	K	KH	N				PHASE 3 PART 1
ASSISTED BREECH DELIVERY								
31.	DISCUSS THE RISK ASSOCIATED WITH VAGINAL BREECH DELIVERY	K	KH	Y				PHASE 3 PART 1
32.	DESCRIBE THE TYPES OF VAGINAL BREECH DELIVERY	K	KH	Y				PHASE 3 PART 1
33.	DEMONSTRATE THE STEPS OF ASSISTED BREECH DELIVERY	K	KH					PHASE 3 PART 1
34.	DESCRIBE THE DIAGNOSIS AND MANAGEMENT OF PROBLEMS IN A COMPLICATED BREECH DELIVERY	K	KH					PHASE 3 PART 1
35.	DESCRIBE THE MANOEUVRES FOR RELEASE OF ARRESTED BUTTOCKS ,ARMS AND AFTER COMING HEAD IN A COMPLICATED BREECH DELIVERY	K	KH					PHASE 3 PART 1

TOPIC: NORMAL AND ABNORMAL PUEPERIUM
NUMBER OF COMPETENCIES : 4
NUMBER OF PROCEDURE THAT REQUIRE CERTIFICATION : NIL

OG 19.1	COMPETENCY: DESCRIBE AND DISCUSS PHYSIOLOGY OF PUEPERIUM ITS COMPLICATIONS DIAGNOSIS AND MANAGEMENT AND COUNSELLING FOR CONTRACEPTION, PUEPERAL STERLISATION							
	LEARNING OBJECTIVE	DO- MAIN K/S/ A/C	LEVEL K/KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METH- OD	INTE- GRA- TION	RE- MARKS
4	LIST THE CAUSES OF FEVER AND PUEPERIUM	K	KH	Y	LECTURE SGD BED-SIDE CLINIC SEMI-NAR	SAQ LAQ MCQ VIVA LONG CASE		PHASE 3 PART1
5.	LIST THE CAUSATIVE ORGANISMS IN PUEPERAL INFECTIONS	K	KH	Y				PHASE 3 PART1
6.	DESCRIBE THE CLINICAL FEATURES OF PUEPERAL SEPSIS	K	KH	Y				PHASE 3 PART1
7.	ENLIST THE INVESTIGATION OF PUEPERAL SEPSIS	K	KH	Y				PHASE 3 PART1
8.	DESCRIBE THE MANAGEMENT OF PUEPERAL SEPSIS	K	KH	Y				PHASE 3 PART1
9.	ENUMERATE ATLEAST IMMEDIATE AND LONG TERM COMPLICATIONS OF PUEPERAL SEPSIS	K	KH	Y				PHASE 3 PART1

10.	ENUMERATE CLINICAL FEATURES OF DVT	K	KH	Y				PHASE 3 PART1
-----	------------------------------------	---	----	---	--	--	--	---------------

OG19.2 COMPETENCY: COUNSEL IN A SIMULATED ENVIRONMENT, CONTRACEPTION AND PUPERAL STERILISATION								
	LEARNING OBJECTIVE	DO-MAIN K/S/ A/C	LEVEL K/KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METHOD	INTEGR- ATION	RE- MARKS
1.	ENUMERATE BENEFITS OF FAMILY PLANNING	K/S/ A/C	K/KH/ SH	Y	LECTURE SGD BED SIDE CLINIC	SAQ VIVA MCQ	FO- RENSIC MEDI- CINE	PHASE 3 PART2
2.	ENUMERATE TEMPORARY AND PERMANENT METHODS OF CONTRACEPTION FOR AN IMMEDIATE POST PARTUM WOMAN	K/S/ A/C	KH/SH	Y				PHASE 3 PART2
3.	DESCRIBE THE 'GATHER' APPROACH FOR FAMILY PLANNING	K/S/ A/C	KH/SH	Y				PHASE 3 PART2
4.	ORGANISE APPROPRIATE IEC MATERIAL TO CONDUCT COUNSELLING SESSION ON CONTRACEPTION EFFECTIVELY AS PER GUIDELINES	K/S/ A/C	KH/SH	Y				PHASE 3 PART2
5.	DETERMINE CLIENTS' MEDICAL ELIGIBILITY CRITERIA FOR CHOSEN METHOD CORRECTLY AS PER WHO MEC WHEEEL 2015	K/S/ A/C	KH/SH	Y				PHASE 3 PART2
6.	COUNSEL A POSTNATAL PATIENT REGARDING CONTRACEPTION AND PUPERAL STERILISATION IN A SOCIOCULTURALLY SENSITIVE MANNER IN A SIMULATED ENVIRONMENT	K/S/ A/C	KH/ SH/P	Y				PHASE 3 PART2

OG19.3 COMPETENCY: OBSERVE / ASSIST IN PERFORMANCE OF TUBAL LIGATION								
	LEARNING OBJECTIVE	DO- MAIN K/S/ A/C	LEVEL K/KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METH- OD	INTE- GRATION	RE- MARKS
1.	DEFINE PUPERAL STERLISATION	K/S/ A/C	K/KH/ SH	Y	DOAP	SAQ VIVA MCQ VIVA LAQ	FORENSIC MEDICINE	PHASE 3 PART2
2.	ENLIST AT LEAST 3 METHODS OF PUPERAL STERLISATION	K/S/ A/C	KH/SH	Y				PHASE 3 PART2
3.	ENUMERATE THE INDICATION AND CONTRAINDICATION OF PUPERAL STERLISATION	K/S/ A/C	KH/SH	Y				PHASE 3 PART2
4.	INTERPRET ELIGIBILITY FOR TUBAL LIGATION FROM THE GIVEN CLIENT DETAILS CORRECTLY AS PER GOI GUIDELINES	K/S/ A/C	KH/SH	Y				PHASE 3 PART2
5.	DESCRIBE THE BASIC STEPS FOR PUPERAL STERLISATION PROCEDURE	K/S/ A/C	KH/SH	Y				PHASE 3 PART2
6.	DEMONSTRATE THE STEPS OF TUBAL LIGATION CORRECTLY AS PER CHECKLIST ON A MODEL	K/S/ A/C	KH/SH	Y				PHASE 3 PART2
7.	LIST 2 IMPORTANT COMPLICSTIONS OF TUBAL STERLISATION	K/S/ A/C	KH/SH	Y				PHASE 3 PART2
8.	OBSERVE/ASSIST IN A PROCEDURE OF PUPERAL STERLISATION AND DOCUMENT THE PROCEDURE WITH RELEVANT DETAILS IN LG BOOK	K/S/ A/C	KH/ SH/P	Y				PHASE 3 PART2

9.	DESCRIBE THE BASIC STEPS FOR PUPERAL STERLISATION PROCEDURE	K/S/A/C	KH/SH	Y				PHASE 3 PART2
10.	LIST THE POST PROCEDURE ADVICE FOR A CASE OF PUPERAL STERLISATION	K/S/A/C	KH/SH	Y				PHASE 3 PART2

NUMBER OF PROCEDURE THAT REQUIRE CERTIFICATION : NIL

No OG. 20.1	Competency : Enumerate the indications and describe and discuss the legal aspects, indications, indications, methods for first and second trimester MTP complications and management of complications of Medical termination of pregnancy	Learning objectives	Do-main	Level K/KH/ SH/P	Core	T-L	Assess-ment Meth-od	Integra-tion	Remarks
1	Describe Components of the MTP act of 1971 and the recent amendments	K/S/A/C	K/K H	Y	Lecture SGD Beside Clinic	LAQ SAQ MCQ Viva Long case	Community Medicine Forensic Medicine	Part 3 Part 1	
2	Enumerate Indication of doing first trimester MTP and second trimester MTP	K/S/A/C	KH/SH	Y				Phase 3 Part 1	
3	Enumerate the different modalities of first trimester MTP and	K/S/A/C	KH/SH	Y				Phase 3 Part 1	
4	Enumerate the complication of first trimester MTP and second trimester MTP	K/S/A/C	KH/SH	Y				Phase 3 Part 1	

5	Diagnose common complications of 1 st and 2 nd trimester MTP	K/S/ A/C	KH/SH	Y				Phase 3 Part 1
6	Manage common complications of first trimester and second trimester MTP	K/S/ A/C	KH/SH	Y				Phase 3 Part 1
7	Counsel a patient for contraception after MTP in a sociocultural sensitive manner to the satisfaction of the observer	K/S/ A/C	KH/SH	Y				Phase 3 Part 1

Topic: Contraception

Number of Competencies: (02)

Number of procedures that require certification (NIL)

OG 21.1	Competency : Describe and discuss the temporary and permanent methods of contraception indications, technique and complications; selections patients, side effects and failure rate including OC Pills, male contraception, emergency contraception and IUCD							
	Learning objectives	Do- main K/S/ A/C	Level K/ KH/ SH/P	Core Y/N	T-L Method	Assess- ment Method	Integra- tion	Remarks
1	Define temporary, Permanents & Emergency contraception	K/S/ A/C	K/KH/ SH/	Y	Lecture SGD Beside e clinic Seminar	SAQ MEQ Viva Long case	Commu- nity Medicine	Phase 3 Part 1
2	Enumerate at least 5 Methods of temporary contraception	K/S/ A/C	K/SH	Y				Phase 3 Part 1

3	Described patient selection criteria, indication/ contraindication mechanism of action, side effects and failure rate of oral contraceptive pills	K/S/ A/C	K/SH	Y				Phase 3 Part 1
4	Enumerate 4 non-contraceptive benefits of combined OC pills (COC)	K/S/ A/C	K/SH	Y				Phase 3 Part 1
5	Describe mechanism of action, indications, benefits and side effects of progestin only pills (POP)	K/S/ A/C	K/KH/ SH/	Y				Phase 3 Part 1
6	Define emergency contraception correctly	K/S/ A/C	K/SH	Y				Phase 3 Part 1
7	Describe the mechanism of action, side effects and complications of at least 4 emergency contraceptive methods	K/S/ A/C	K//SH	Y				Phase 3 Part 1
8	Enumerate 3 long acting hormonal contraceptives	K/S/ A/C	K//SH	Y				Phase 3 Part 1
9	Describe patient selection criteria	K/S/ A/C	K/SH	Y				Phase 3 Part 1
10	(WHO), counselling, side effects, mechanism of action, failure rates of injectable hormonal contraceptives	C						Part 1
11	Describe patient selection criteria (WHO) counselling side effects, mechanism of action, failure rates, of implants ring patch.	K/S/ A/C	K/KH/ SH/	Y				Phase 3 Part 1
12	Describe types, patient selection criteria (WHO) counselling side effects, mechanism of action and failure rates of IUCD See competency 19.4 also	K/S/ A/C	K/KH/ SH/	Y				Phase 3 Part 1
13	Describe patient selection criteria (WHO) counselling side-effects, mechanism of action, and failure rates and non-contraceptive benefits of LNG IUCD	K/S/ A/C	K/KH/ SH/	Y				Phase 3 Part 1

14	Describe evaluation and management of missed thread do FIUCD correctly	K/S/ A/C	K/KH/ SH/	Y				Phase 3 Part 1
15	Describe the technique, counselling advantages, compilations & failure rate of permanent methods of male sterilization.	K/S/ A/C	K/KH/ SH/	Y				Phase 3 Part 1
16	Counsel couple for contraception as per the cafeteria approach in a simulated environment confidently with socio- cultural sensitivity to the satisfaction of the observer.	K/S/ A/C	K/KH/ SH/	Y				Phase 3 Part 1

Topic: VAGINAL DISCHARGE

Number of Competencies: (02)

Number of procedures that require certification (NIL)

No OG 22. 2	Competency 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.	Do- main K/S/ A/C	Level K/KH/ SH/P	Core Y/N	T-L Method	Assess- ment Method	Integra- tion	Remarks
4	Describe clinical diagnosis of bacterial vaginosis and its treatment correctly Compare and contrast the clinical findings in candidiasis, trichomoniasis and bacterial vaginosis.	K/S/ A/C	KH/SH	Y				Phase 3 Part 1
5	Describe the rationale for syndromic management of STI	K/S/ A/C	KH/SH	Y				Phase 3 Part 1
6	Describe WHO/ NACO guidelines of STI treatment.	K/S/ A/C	KH/SH	Y				Phase 3 Part 1
7	Counsel a lady regarding genital hygiene for STI prevention in a simulated environment to the satisfaction of the observer	K/S/ A/C	KH/SH	Y				Phase 3 Part 1

TOPIC: Abnormal uterine bleeding
Number of competencies (01)
Number of procedures that require certification (NIL)

No. OG 24.1	Competency: Define, classify and discuss abnormal uterine bleeding, its aetiology, and clinical features.							
	Learning objectives	Do- main	Lev- el K/ KH/ SH/P	Core Y/N	T-L Method	Assess- ment Method	Integra- tion	Remarks
1	Define AUB	K/S/ A/C	KH/SH	Y	Lecture SGD Beside Clinic	LAQ SAQ MCQ Viva Long case		Phase 3 Part 1
2	Describe abnormal patterns of menstruation	K/S/ A/C	KH/SH	Y				Phase 3 Part 1
3	Classify AUB using FIGO PALM COEIN classification	K/S/ A/C	KH/SH	Y				Phase 3 Part 1
4	Discuss the etiology of AUB according to age	K/S/ A/C	KH/SH	Y				Phase 3 Part 1
5	Enlist the appropriate investigations according to age correctly	K/S/ A/C	KH/SH	Y				Phase 3 Part 1
6	Discuss the medical management options in a case of AUB according to age and reproductive goals	K/S/ A/C	KH/SH	Y				Phase 3 Part 1
7	Discuss the surgical management options in a case to AUB according to age and reproductive goals	K/S/ A/C	KH/SH	Y				Phase 3 Part 1

Topic: Amenorrhea
Number of competencies: (01)
Number of procedures that require certification: (NIL)

No. OG 25.1	Competency : Describe and discuss the causes of primary and secondary amenorrhea, its investigations and the principles of management							
	Learning objectives	Do- main K/S/ A/C	Level K/ KH/ SH/P	Core Y/N	T-L Method	Assess- ment Method	Integra- tion	Re- marks
1	Define primary amenorrhea	K	KH	Y	Lecture SGD Beside Clinic	SAQ MCQ Viva Long case		Phase 3 Part 1
2	Enumerate the causes of primary amenorrhea	K	KH	Y				Phase 3 Part 1
3	Formulate a systematic investigation plan based on history and clinical examination to evaluate a case of primary amenorrhea	K	KH	Y				Phase 3 Part 1
4	Outline the principles of management of primary amenorrhea	K	KH	Y				Phase 3 Part 1
5	Define secondary amenorrhea	K/S	KH	Y				Phase 3 Part 1
6	Enumerate the causes of secondary amenorrhea	K/S	KH	Y				Phase 3 Part 1
7	Formulate a systematic investigation plan based on history and clinical examination to evaluate a case of secondary amenorrhea	K/S	KH	Y				Phase 3 Part 1
8	Outline the management of secondary amenorrhea according to cause	K/S	KH	Y				Phase 3 Part 1

Topic: Uterine fibroids
Number of Competencies: (01)
Number of procedures that require certification: (NIL)

No OG 29.1	Competency : Describe and discuss the etiology; pathology; clinical features; differential diagnosis; investigations; principles of management, complication of fibroid uterus							
	Learning objectives	Do- main K/S/ A/C	Level K/KH/ SH/P	Core Y/N	T-L Method	Assess- ment Method	Integra- tion	Remarks
1	Define fibroid uterus	K	KH	Y	Lecture SGD Beside Clinic	LAQ SAQ MCQ Viva Long case		Phase 3 part 1
2	Describe 2 risk factors for fibroid uterus	K	KH	Y				Phase 3 part 1
3	Discuss site / location of fibroid as per FIGO Classification	K	KH	Y				Phase 3 part 1
4	Describe clinical features of fibroids correlating with anatomical location	K	KH	Y				Phase 3 part 1

Topic: Obstetrics & Gynecological Skills

Number of competencies: (17)

Number of procedures that require certification: (NIL)

No OG 40.1	Competency : Describe etiology, diagnosis and management of Fever in pregnancy & its impact on pregnancy							
	Learning objectives	Do- main K/S/ A/C	Level K/ KH/ SH/P	Core Y/N	T-L meth- od	Assess- ment Method	Integra- tion	Re- marks
1	Enumerate 6 important causes of fever in pregnancy	K/S	KH/SH	Y	SGD	Skill assessment Viva	Medicine	Phase 3 Part 1
2	Describe the maternal & fetal complications of management of malaria / dengue in pregnancy	K/S	KH/SH	Y				Phase 3 Part 1
3	Describe the diagnosis & principles of management of malaria / dengue in pregnancy	K/S	KH/SH	Y				Phase 3 Part 1
4	Describe the diagnosis & principles of management of COVID in pregnancy	K/S	KH/SH	Y				Phase 3 Part 1

Clinical Postings

OG 13.3	COMPETENCY: OBSERVE/ ASSIST IN THE PERFORMANCE OF AN ARTIFICIAL RUPTURE OF MEMBRANES							
	LEARNING OBJECTIVE	DO- MAIN K/S/ A/C	LEVEL K/ KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METHOD	INTE- GRA- TION	RE- MARKS
1	LIST THE INSTRUMENTS REQUIRED FOR ARM	K/S	KH/SH	Y	SGD BEDSIDE CLINIC DOAP	SAQ MCQ OSCE VIVA LONG CASE		PHASE 3 PART1

2	LIST 2 INDICATIONS FOR ARM	K/S	KH/SH	Y				PHASE 3 PART1
3	LIST 2 CONTRAINDICATIONS FOR ARM	K/S	KH/SH	Y				PHASE 3 PART1
4	DESCRIBE THE STEPS OF ARM CORRECTLY	K/S	KH/SH	Y				PHASE 3 PART1
5	LIST 3 IMPORTANT COMPLICATIONS OF ARM	K/S	KH/SH	Y				PHASE 3 PART1
6	OBSERVE/ASSIST IN 2 CASES UNDERGOING ARM	K/S	KH/SH	Y				PHASE 3 PART1

OG 13.4	COMPETENCY: DEMONSTRATE THE STAGES OF NORMAL LABOR IN A SIMULATED ENVIRONMENT/MANNIKIN							
	LEARNING OBJECTIVE	DO-MAIN K/S/ A/C	LEVEL K/KH/ SH/P	CORE Y/N	T-L METH- OD	ASSES- MENT METHOD	INTE- GRA- TION	RE- MARKS
1	LIST THE PRE-PROCEDURE, PROCEDURAL STEPS IN CONDUCT OF NORMAL DELIVERY	K/S/ A/C	SH/P	Y	DOAP	OSCE		PHASE 3 PART1
2	DEMONSTRATE THE STEPS OF NORMAL DELIVERY IN CORRECT SEQUENCE ON A MANNIKIN ACCORDING TO CHECKLIST PROVIDED	K/S/ A/C	SH/P	Y				PHASE 3 PART1
3	DEMONSTRATE THE CONDUCT OF 3 RD STAGE OF LABOR INCLUDING METHOD OF EXAMINATION OF PLACENTA CORRECTLY ON A MODEL	K/S/ A/C	SH/P	Y				PHASE 3 PART1

No OG 35.2	Competency : Arrive at a logical provisional diagnosis after examination							
	Learning objectives	Do-main K/S/ A/C	Level K/KH/ SH/P	Core Y/N	T-L method	Assess-ment Method	Inte-gration	Remarks
1	Correlate history with an organ and pathology and perform relevant clinical examinations to arrive at a provisional diagnosis	K	K/KH	Y	Lecture SGD Beside clinic	LAQ SAQ MCQ Viva Long case		Phase 3 part 1
2	Justify the provisional diagnosis on the basis of points in history and examination	K	K/KH	Y				Phase 3 part 1
4	Organize and present the summary of the given case in a coherent manner	K	K/KH	Y				Phase 3 part 1
See competency number 8.2 & 8.3 also								
No OG 35.13	Competency : Demonstrate the correct technique to perform artificial rupture of membranes in a simulated / supervised environment							
	Learning objectives	Do-main K/S/ A/C	Level K/KH/ SH/P	Core Y/N	T-L method	Assess-ment Method	Inte-gration	Remarks
1	See competency 13.3	K/S	KH/SH	Y	DOAP Beside clinic	Log book		Phase 3 Part 1

No OG 37.1	Competency : Observe and assist in the performance of a Caesarean section							
	Learning objectives	Do- main K/S/ A/C	Level K/ KH/ SH/P	Core Y/N	T-L method	Assess- ment Method	Integra- tion	Remarks
2	Identify the instruments for CS	K/S/ A/C	SH/P	Y	bedside clinic SGD	SKILL ASSESS- MENT viva log book		Phase 3 part 2& 1
4	Assist / observe 5 CS and document it correctly in the logbook	K/S/ A/C	SH/P	Y				Phase 3 part 2& 1
5	Enumerate 2 immediate and 2 long term complications of CS	K/S/ A/C	SH/P	Y				Phase 3 part 2& 1
	See competency 15.1 and 15.2							

No OG 37.4	Competency : observe and assist in the performance of D AND C							
	Learning objectives	Do- main K/S/ A/C	Level K/KH/ SH/P	Core Y/N	T-L method	Assess- ment Method	Integra- tion	Remarks
1	Assist / observe 2 D &C procedures document it correctly in the logbook	K/S/ A/C	KH/SH	Y	SGD bed- side clinic	SKILL AS- SESS- MENT viva log book		Phase 3 PART 2 & 1

No OG 37.6	Competency : Observe and assist in the performance of outlet forceps application of vacuum and breath deliver							
	Learning objectives	Do-main K/S/A/C	Level K/KH/ SH/P	Core Y/N	T-L method	Assess-ment Method	Inte-gration	Remarks
1	Observe / assist in the performance of one outlet forceps delivery and document it correctly in the logbook	K/S/A/C	SH/P	Y				Phase 3 Part 2 & 1
2	observe / assist in the performance of one vacuum delivery and document it correctly in the logbook	K/S/A/C	SH/P	Y				Phase 3 Part 2 & 2
3	Observe / assist in the performance of one assisted breech delivery and document it correctly in the logbook	K/S/A/C	SH/P	Y				Phase 3 Part 2 & 1
	See competency 14.4, 15.1 and 15.2							

No OG 37.7	Competency : Observe and assist in the performance of MTP in the first trimester and evacuation in incomplete abortion							
1	Observe / assist in the performance of 2 MTP procedures and documents it correctly in the logbook	K/S/A/C	SH/P	Y	SGD Beside Clinic	Skill assessment Viva Log book		Phase 3 Part 2 & 1
	See competency 9.2 and 20.2 and 20.3 also							

5. ASSESSMENT:

- a. SUMMATIVE ASSESSMENT- NIL; No summative assessment in Obstetrics & Gynaecology in this phase
- b. INTERNAL ASSESSMENT

As per GMER 2019, page.no.82-83, 11.1.1(b):

There will be 2 theory internal assessment examinations in Obstetrics & Gynaecology. First theory internal assessment examination will be held after six months and second internal assessment examination will be held after 9 months of Phase III Part I

There will be one clinical internal assessment at the end of clinical postings.

Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners participate in learning process.

Day to day records and log book should be given importance in internal assessment. Internal assessment should be based on competencies and skills.

As per GMER 2019, 9.5.3, page.no.75:

- (a) A designated faculty member in each unit will coordinate and facilitate the activities of the learner, monitor progress, provide feedback and review the log book/ case record.
- (b) The log book/ case record must include the written case record prepared by the learner

PROPOSED MARKS ALLOCATION FOR INTERNAL ASSESSMENT

Theory: 50 marks; 1½ hours (90min) Clinicals ; 50 marks

Clinical Internal Assessment :50 marks

Obstetrics case: 15 marks

Gynaecology case: 15 marks

Record: 5 marks

Attendance: 5 marks

Log book: 10 marks

Theory internal Assessment: 50 marks

Obstetrics Paper: 25 marks

Long essay: $1 \times 10 = 10$ marks

Short essays: $2 \times 5 = 10$ marks Obstetrics Long case: 15 marks

MCQs: $1 \times 5 = 5$ marks

Gynaecology Paper: 25 marks

Long essays: $10 \times 1 = 10$ marks

Short essays: $2 \times 5 = 10$ marks

MCQs: $1 \times 5 = 5$ marks

Annexure I - Recommended books:

RECOMMENDED BOOKS (Recent editions):

1. Mudaliar&Menon's Clinical Obstetrics, Mudaliar A.L. & Krishna Menon, OrientLongman, Chennai
2. Text book of Obstetrics, V. Padubidri, E. Anand, BI Publications, New Delhi
3. Manual of Obstetrics, Seth Sirish N. Daftary Sudip Chakravathi, Elsevier, New Delhi
4. Holland & Brews, Manual of Obstetrics, Daftary Sirish N., Churchill Livingstone New Delhi
5. Obstetrics Daftary N.S. Jani, Elsevier, New Delhi
6. Text book of Obstetrics, Sudha Salhan, Jaypee Brothers, New Delhi
7. Text book of Obstetrics, Dutta D.C. New Central Book Agency, Calcutta
8. Practice of Fertility control S.K. Chaudhri Elsevier
9. Text book of Obstetrics, Sheila Balakrishnan, Paras Publishing
10. Essentials of Obstetrics, S. Arulkumaran, Pratap Kumar, Alokendu Chatterjee, V. Sivanesarathnemma, Jaypee
11. Williams Obstetrics Cunningham, Mc Graw Hill
12. Jan Doivald's Practical Obstetric Problems Renu Mishra, BI Publications, New Delhi
13. Practical Guide to high risk pregnancy and delivery Arius Fernando Harcourt Brace & Co. Singapore
14. Medical Disorders in Obstetrics, Michael De Swiet Blackwell Scientific Co. London
15. Operative Obstetrics, Munro Keer Saunders Reference Books, Recent Editions
16. Hawkins & Bourne Shaw's Textbook of Gynaecology, U.G. Padubidri, S.N. Daftary Elsevier, New Delhi
17. Textbook of Gynaecology including contraception, Dutta P.C., New Control Book Agency, Calcutta
18. Clinical Gynaecology. K. Bhaskar Rao
19. Essentials of Gynaecology, S. Arulkumaran, Pratap Kumar, V.S. Ratnam, Chatterjee Jaypee
20. Obstetrics & Gynaecology, S.S. Ratham, K. Bhaskar Rao
21. Arulkumaran Orient Longman, Hyderabad
22. Clinical Gynaecology Endocrinology & Infertility, Leon Speroff & Marc A. Fritz Jaypee Brothers, New Delhi
23. Te Linde's Operative Gynaecology, John A. Rock, H.W. Jones III, Wolts Kluwer/ LWW/ London
24. Jeffcote's Principles of Gynaecology, Bhatla Neeraja Arncl Co., London

PEDIATRICS

GOAL

The goal of the training in Pediatrics for Phase III Part I undergraduate students in theory and clinicals will be to orient them regarding the common disorders in pediatrics and also to enhance skills in history taking and examination of pediatric cases.

OBJECTIVES

The objective of training the undergraduate students in Pediatrics is to ensure that at the end of the phase 3 part 1 he/she will be able to acquire the following proficiencies:

(a) Knowledge

1. About the common pediatric problems- diarrheal illness in children, hematological disorders, fluid and electrolytes, nutrition, growth and development

(b) Skills:

1. Enhance skills in history taking in common pediatric cases.
2. Develop skills in basic clinical examination.

(c) Affective:

1. Demonstrate empathy, humane approach towards the child and the bystanders
2. Develop selflessness, integrity, responsibility, accountability and respect.
3. Communicate effectively with peers, students, teachers and support staff in various teaching learning activities in a manner that encourages participation and shared decision-making.
4. Demonstrate ability to communicate adequately, sensitively, effectively and respectfully with patients and their attenders.
5. Demonstrate due respect and follow the correct procedure while eliciting history from attenders.

Integration

The training in pediatrics should prepare the student to deliver preventive, promotive, curative and rehabilitative services for care of children both in the community and at hospital as part of a team in an integrated form with other disciplines, e.g. Microbiology, ENT, Ophthalmology, Radiology, OBG and Community Medicine.

COURSE OUTCOME

At the end of the the professional year, the learner shall be familiar with a few common Pediatric conditions and will be able to demonstrate the skills required for eliciting history and basic clinical examination of a child or neonate.

TEACHING HOURS

Number of teaching hours recommended by NMC:

Theory - 55 hours

Clinicals – 4 weeks (Approximately 65-70 hours)

ASSESSMENT

Clinical internal assessment will be conducted at the end of 4 weeks of clinical postings

Case discussion	marks 20
OSCE	marks 5
Total	marks 25

Theory internal assessment will be conducted twice in Phase II Part 1(at the end of 6 months each). Each theory paper will be for 30 marks. The best marks of the 2 assessments will be considered.

(Long Essay(10marksx1	marks 10
(Short essay (5marksx1	marks 5
(Short notes(2marksx5	marks 10
(MCQs (1-mark x5	marks 5
Total	marks 30

LEARNING RESOURCE MATERIAL

Recommended books:

1. Nelson textbook of Pediatrics, 21st edition
2. OP Ghai Textbook of Pediatrics, 9th edition
3. IAP Textbook of Pediatrics, 7th edition
4. Meherban Singh Pediatric Clinical Methods, 5th edition

Competencies and SLOs for Phase 3 part 1

Number	Competency & Learning Objective(s)	Do- main K/S/ A/C	K/ KH /SH/ P	Core	Sug- gested Teach- ing Learn- ing Meth- od	Sugges- ted As- sess- ment Method	Num- ber for Certif- ic ation	Ver- ticia l In- teg- ra tion	Hor- izon- tal Inte- gratio n
Topic: Normal Growth and Development		Number of competencies: (7)			Number of procedures that require certification: (02)				
PE 1.1	Define the terminologies Growth and Development and Discuss the factors affecting normal growth and development	K	KH	Y	Lec- ture/ SGD	Written/viva voce			
1.1.1	Define Growth and Development	K	KH	Y	Lecture/ SGD	Written/viva voce			

1.1.2	Enumerate the factors affecting normal growth and development	K	KH	Y	Lecture/ SGD	Written/viva voce			
PE 1.2	Discuss and Describe the patterns of growth in infants, children and adolescents	K	KH	Y	Lec- ture/ SGD	Written/viva voce			Psych
1.2.1	Describe the patterns of growth in infants, children and adolescents	K	KH	Y	Lecture/ SGD	Written/viva voce			
PE 1.3	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	Lec- ture/ SGD	Written/viva voce			Com Med
1.3.1	Describe the methods of assessment of growth including use of WHO and Indian national standards.	K	KH	Y	Lecture/ SGD	Written/viva voce			
1.3.2	Describe WHO and Indian national standards for growth of infants, children and adolescents.	K	KH	Y	Lecture/ SGD	Written/ viva voce			
1.3.3	Enumerate the parameters used for assessment of physical growth in infants, children and adolescents.	K	KH	Y	Lecture/ SGD	Written/viva voce			
PE 1.5	Define development and Discuss the normal developmental milestones with respect to motor, behavior, social, adaptive and language	K	KH	Y	Lec- ture/ SGD	Written/ viva voce			Psych
1.5.1	Define development.	K	KH	Y	Lecture/ SGD	Written/viva voce			
1.5.2	Describe the normal developmental milestones with respect to motor, behavior, social, adaptive and language domains.	K	KH	Y	Lecture/ SGD	Written/viva voce			Psych
PE 1.6	Discuss the methods of assessment of development.	K	KH	Y	Lec- ture/ SGD	Written/ viva voce			
1.6.1	Discuss the methods of assessment of development	K	KH	Y	Lecture/ SGD	Written/viva voce			

Topic: Normal nutrition, assessment and monitoring		Number of competencies: (7)				Number of procedures that require certification: (NIL)		
PE 9.1	Describe the age-related nutritional needs of infants, children and adolescents including micronutrients and vitamins	K	KH	Y	Lec-ture, SGD	Written/ Viva voce		Com Med, Bio-chemistry
9.1.1	List the macronutrients and micronutrients required for growth.	K	K	Y	Lec-ture, SGD	Written/ Viva voce		
9.1.2	Describe the nutritional needs (calorie, protein, micronutrients minerals and vitamins) of an infant.	K	KH	Y	Lec-ture, SGD	Written/ Viva voce		
9.1.3	Describe the nutritional needs (calorie, protein, micronutrients minerals and vitamins) for children of different ages.	K	KH	Y	Lec-ture, SGD	Written/ Viva voce		
9.1.4	Describe the nutritional needs (calorie, protein, micronutrients minerals and vitamins) of adolescents of both genders.	K	KH	Y	Lec-ture, SGD	Written/ Viva voce		
P E 9.2	Describe the tools and methods for assessment and classification of nutritional status of infants, children and adolescents	K	KH	Y	Lec-ture, SGD	Written/ Viva voce		Com Med
9.2.1	List the tools required for anthropometric measurements viz. weight, length/height, head circumference, midarm circumference.	K	K	Y	Lec-ture, SGD	Written/ Viva voce		
9.2.2	Describe the method of assessment in detail for different anthropometric measurements for all age groups.	K	KH	Y	Lec-ture, SGD	Written/ Viva voce		

9.2.3	Classify the nutritional status as per WHO classification based on anthropometric measurement data for all age groups.	K	KH	Y	Lecture, SGD	Written/ Viva voce		
PE 9.3	Explains the calorific value of common Indian foods	K	K	Y	Lecture, SGD	Written/ Viva voce		Bio-chemistry
9.3.1	Explain the calorie and protein content of commonly used uncooked and cooked cereals.	K	K	Y	Lecture, SGD	Written/ Viva voce		
9.3.2	Explain the calorie and protein content of common uncooked food items like dairy products, eggs, fruits, vegetables etc.	K	K	Y	Lecture, SGD	Written/ Viva voce		
9.3.3	Explain the calorie and protein content of common Indian cooked food items e.g. dalia, roti, chapati, khichdi, dal, rice, idli.	K	K	Y	Lecture, SGD	Written/ Viva voce		

Topic: Micronutrients in Health and disease-1 (Vitamins ADEK, B Complex and C)

Number of procedures that require certification: (NIL)

Number of competencies: (21)

PE 12.1	Discuss the RDA, dietary sources of Vitamin A and their role in health and disease	K	K	Y	Lecture, SGD	Written/ Viva voce		Bio-chemistry
12.1.1	Recall the RDA and dietary sources of vitamin A for children of different ages.	K	K	Y	Lecture, SGD	Written / viva voce		
12.1.2	Describe the physiology and role of vitamin A in health and disease.	K	KH	Y	Lecture, SGD	Written / viva voce		
PE 12.2	Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin A	K	KH	Y	Lecture, SGD	Written/ Viva voce		Bio-chemistry

12.2.1	Enumerate the causes of Vitamin A deficiency/excess in children.	K	K	Y	Lecture, SGD	Written / viva voce		
12.2.2	Describe the clinical features of Vitamin A Deficiency/excess in children.	K	KH	Y	Lecture, SGD	Written / viva voce		
12.2.3	Describe the diagnosis and management of Vitamin A Deficiency/excess in children.	K	KH	Y	Lecture, SGD	Written / viva voce		
PE 12.5	Discuss the Vitamin A prophylaxis program and their Recommendations	K	K	Y	Lecture, SGD	Written/ Viva voce		Bio-chemistry
12.5.1	Enumerate the components of the National vitamin A prophylaxis program.	K	K	Y	Lecture, SGD	Written / viva voce		Com Med
PE 12.6	Discuss the RDA, dietary sources of Vitamin D and its role in health and disease	K	K	Y	Lecture, SGD	Written/ Viva voce		Bio-chemistry
12.6.1	Describe the RDA and dietary sources of vitamin D for the pediatric age groups.	K	K	Y	Lecture, SGD	Written / viva voce		
12.6.2	Describe the role of vitamin D in health and disease.	K	KH		Lecture, SGD	Written / viva voce		
PE 12.7 Rickets	Describe the causes, clinical features, diagnosis and management of vitamin D deficiency (VDD)/ excess (Rickets & Hypervitaminosis D)	K	KH	Y	Lecture, SGD	Written / viva voce		Bio-chemistry, Physio, Path

12.7.1	List the causes of Rickets/ Hypervitaminosis D in children.	K	K	Y	Lec-ture, SGD	Written / viva voce		
12.7.2	Describe the clinical features and Describe the underlying pathophysiology of Rickets / Hypervitaminosis D.	K	KH	Y	Lec-ture, SGD	Written / viva voce		
12.7.3	Describe the diagnosis and management of Rickets / Hypervitaminosis D.	K	KH	Y	Lec-ture, SGD	Written / viva voce		
PE 12.10	Discuss the role of screening for Vitamin D deficiency	K	K	Y	Lec-ture, SGD	Written/ viva voce		
12.10.1	List the sociodemographic factors associated with vitamin D deficiency.	K	K	Y	Lec-ture, SGD	Written/ viva voce		
12.10.2	Describe the prevalence and patterns of VDD in the region/country.	K	K	Y	Lec-ture, SGD	Written/ viva voce		
12.10.3	Discuss the role of screening for VDD in different groups (high-risk/population).	K	K	Y	Lec-ture/ SGD	Written/ viva voce		
PE 12.11	Discuss the RDA, dietary sources of Vitamin E and its role in health and disease	K	K	N	Lec-ture, SGD	Written/ Viva voce	Bio-chemistry	
12.11.1	Describe the RDA and dietary sources of vitamin E for the pediatric age.	K	K	N	Lec-ture, SGD	Written/ viva voce	Bio-chemistry	-
12.11.2	Describe the role of vitamin E in health and disease.	K	KH	N	Lec-ture, SGD	Written/ viva voce	Bio-chemistry	

PE 12.12	Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin E	K	KH	N	Lec-ture, SGD	Written/ Viva voce		Bio-chemistry	
12.12.1	List the causes of deficiency of Vitamin E in children.	K	K	N	Lec-ture, SGD	Written/ viva voce		Bio-chemistry	
12.12.2	Describe the clinical features of deficiency of Vitamin E .	K	KH	N	Lec-ture, SGD	Written/ viva voce		Bio-chemistry	
12.12.3	Describe the diagnosis and management of deficiency of Vitamin E.	K	KH	N	Lec-ture, SGD	Written/ viva voce		-	
PE 12.13	Discuss the RDA, dietary sources of Vitamin K and their role in health and disease	K	K	N	Lec-ture, SGD	Written/ Viva voce		Bio-chemistry, Physio, Path	
12.13.1	Describe the RDA and dietary sources of vitamin K for the pediatric age.	K	K	N	Lec-ture, SGD	Written/ viva voce		Bio-chemistry	-
12.13.2	Describe the role of vitamin K in health and disease.	K	KH	N	Lec-ture, SGD	Written/ viva voce		Bio-chemistry	
PE 12.14	Describe the causes, clinical features, diagnosis management & prevention of deficiency of Vitamin K	K	KH	N	Lec-ture group, Small Dis-cus-sion	Written/ Viva voce		Bio-chemistry, Physio, Path	
12.14.1	List the causes of deficiency of Vitamin K in children of different ages.	K	K	N	Lec-ture/ SGD	Written/ viva voce		Bio-chemistry	

12.14.2	List the clinical features of deficiency of Vitamin K .	K	KH	N	Lec-ture/ SGD	Written/ viva voce		Bio- chemis- try	
12.14.3	Describe the diagnosis and management of deficiency of Vitamin K.	K	KH	N	Lec-ture/ SGD	Written/ viva voce	-	-	
PE 12.15	Discuss the RDA, dietary sources of Vitamin B and its role in health and disease				Lec-ture, SGD	Written/ Viva voce	-	Bio- chemis- try	
12.15.1	Describe the RDA and dietary sources of various vitamins B for the pediatric age group.	K	K	Y	Lec-ture/ SGD	Written/ viva voce	-	Bio- chemis- try	-
12.15.2	Describe the role of vitamin B in health and disease.	K	KH	Y	Lec-ture/ SGD	Written/ viva voce	-	Bio- chemis- try	
PE 12.16	Describe the causes, clinical features, diagnosis and management of deficiency of B complex vitamins	K	KH	Y	Lec-ture, SGD	Viva/ SAQ/ MCQ	-	Bio- chem- istry, Com Med, Derma- tology, Hema- tology	
12.16.1	List the causes of deficiency of B complex vitamins in children	K	K	Y	Lec-ture/ SGD	Written/ viva voce	-	Bio- chem- istry, Com Med	

12.16.2	Describe the clinical features of deficiency of B complex vitamins	K	KH	Y	Lec-ture/ SGD	Written/viva voce	-	Bio-chem- istry, Derma- tology, Hema- tology	
12.16.3	Describe the diagnosis and management of deficiency of B complex vitamins	K	KH	Y	Lec-ture/ SGD	Written/ viva voce	-	Hema- tology	
PE 12.19	Discuss the RDA, dietary sources of vitamin C and their role in health and disease	K	KH	N	Lec-ture, SGD	Written/ Viva voce		Bio-chemis- try	
12.19.1	List the RDA and dietary sources of vitamin C for the pediatric age	K	K	N	Lec-ture, SGD	Written/ viva voce	-	Bio-chemis- try	-
12.19.2	Describe the role of vitamin C in health and disease	K	KH	N	Lec-ture, SGD	Written/ viva voce	-	Bio-chemis- try	
PE 12.20	Describe the causes, clinical features, diagnosis and management of deficiency of vitamin C (scurvy)	K	KH	N	Lec-ture, SGD	Written/ Viva voce		Bio-chemis- try	
12.20.1	List the causes of deficiency of Vitamin C in children	K	K	N	Lec-ture, SGD	Written/ viva voce	-	Bio-chemis- try	
12.20.2	Describe the clinical features of deficiency of vitamin C	K	KH	N	Lec-ture, SGD	Written/ viva voce	-	Bio-chemis- try	
12.20.3	Describe the diagnosis and management of deficiency of vitamin C	K	KH	N	Lec-ture, SGD	Written/ viva voce	-	-	

Topic: Micronutrients in Health and disease -2: Iron, Iodine, Calcium, Magnesium		Number of competencies: (14)					Number of procedures that require certification: (NIL)		
PE 13.1	Discuss the RDA, dietary sources of Iron and their role in health and disease	K	K	Y	Lecture, SGD	Written/ Viva voce			
13.1.1	Recall the RDA of Iron in children of all age groups.	K	K	Y	Lecture, SGD	Written/ viva voce			
13.1.2	Enumerate the dietary sources of Iron and Discuss their role in health and disease.	K	K	Y	Lecture, SGD	Written/ viva voce			
PE 13.2	Describe the causes, diagnosis and management of Iron deficiency	K	KH	Y	Lecture, SGD	Written/ viva voce			
13.2.1	Enumerate the causes of iron deficiency.	K	KH	Y	Lecture, SGD	Written/ viva voce			
13.2.2	Describe the diagnosis of iron deficiency.	K	KH	Y	Lecture, SGD	Written/ viva voce			
13.2.3	Describe management of iron deficiency.	K	KH	Y	Lecture, SGD	Written/ viva voce			
PE 13.6	Discuss the National anemia control program and its recommendations	K	K	Y	Lecture, SGD	Written/ viva voce		Pharm, Com Med	
13.6.1	Describe the components of National anemia control program and its recommendations.	K	K	Y	Lecture, SGD	Written/ viva voce			

PE 13.7	Discuss the RDA, dietary sources of Iodine and its role in Health and disease	K	K	Y	Lec-ture, SGD	Written/viva voce		Bio-chemistry	
13.7.1	Recall the RDA of Iodine in children.	K	K	Y	Lec-ture, SGD	Written/viva voce			
13.7.2	Enumerate the dietary sources of Iodine and their role in Health and disease.	K	K	Y	Lec-ture, SGD	Written/viva voce			
PE 13.8	Describe the causes, diagnosis and management of deficiency of Iodine	K	KH	Y	Lec-ture, SGD	Written/viva voce		Bio-chemistry	
13.8.1	Enumerate the causes of Iodine deficiency.	K	KH	Y	Lec-ture, SGD	Written/viva voce			
13.8.2	Discuss the diagnosis of Iodine deficiency.	K	KH	Y	Lec-ture, SGD	Written/viva voce			
13.8.3	Describe the management of Iodine deficiency.	K	KH	Y	Lec-ture, SGD	Written/viva voce			
PE 13.10	Discuss the National Goiter Control program and its recommendations	K	K	Y	Lec-ture/ Small group discussion	Written/viva voce		Bio-chemistry, Com Med	
13.10.1	Discuss the National Goiter Control program and the Recommendations.	K	K	Y	Lec-ture/ Small group discussion	Written/viva voce			

PE 13.11	Discuss the RDA, dietary sources of Calcium and its role in health and disease	K	K	Y	Lec-ture/ Small group discus-sion	Written/ viva voce		Bio-chemistry	
13.11.1	Recall the RDA of Calcium in children.	K	K	Y	Lec-ture/ Small group discus-sion	Written/ viva voce			
13.11.2	Enumerate the dietary sources of calcium.	K	K	Y	Lec-ture/ Small group discus-sion	Written/ viva voce			
13.11.3	Explain the role of calcium in health and disease.	K	K	Y	Lec-ture/ Small group discus-sion	Written/ viva voce			
PE 13.12	Describe the causes, clinical features, diagnosis and management of Calcium Deficiency	K	KH	Y	Lec-ture/ Small group discus-sion	Written/ viva voce		Bio-chemistry	
13.12.1	Enumerate the causes of Calcium Deficiency.	K	KH	Y	Lec-ture/ Small group discus-sion	Written/ viva voce			

13.12.2	Describe the clinical features of Calcium Deficiency.	K	KH	Y	Lecture/ Small group discussion	Written/ viva voce			
13.12.3	Discuss the diagnosis of Calcium Deficiency.	K	KH	Y	Lecture/ Small group discussion	Written/ viva voce			
13.12.4	Discuss the management of Calcium Deficiency.	K	KH	Y	Lecture/ Small group discussion	Written/ viva voce			
PE 13.13	Discuss the RDA, dietary sources of Magnesium and their role in health and disease	K	K	N	Lecture/ Small group discussion	Written/ viva voce		Bio-chemistry	
13.13.1	Recall the RDA of Magnesium in children.	K	K	N	Lecture/ Small group discussion	Written/ viva voce			
13.13.2	List the dietary sources of Magnesium and their role in health and disease.	K	K	N	Lecture/ Small group discussion	Written/ viva voce			

PE 13.14	Describe the causes, clinical features, diagnosis and management of Magnesium Deficiency	K	KH	N	Lec-ture/ Small group discus-sion	Written/ viva voce		Bio-chem-istry	
13.14.1	Enumerate the causes of Magnesium Deficiency.	K	KH	N	Lec-ture/ Small group discus-sion	Written/ viva voce			
13.14.2	Describe the clinical features of Magnesium Deficiency.	K	KH	N	Lec-ture/ Small group discus-sion	Written/ viva voce			
13.14.3	Discuss the diagnosis of Magnesium Deficiency.	K	KH	N	Lec-ture/ Small group discus-sion	Written/ viva voce			
13.14.4	Discuss the management of Magnesium Deficiency.	K	KH	N	Lec-ture/ Small group discus-sion	Written/ viva voce			

Topic: Care of the Normal Newborn and High risk Newborn	Number of competencies: (20)			Number of procedures that require certification: (NIL)				
	K	KH	Y	Lecture/ SGD	Written/viva voce			
Define the common neonatal nomenclatures including the classification and describe the characteristics of a Normal Term Neonate and High Risk Neonates	K							
Define the Neonatal and Perinatal period.	K	K	Y	Lecture/ SGD	Written /Viva voce			
Define live birth and still birth.	K	K	Y	Lecture/ SGD	Written /Viva voce			
Classify the neonate according to birth weight into different categories.	K	KH	Y	Lecture/ SGD	Written /Viva voce			
Classify the neonate according to period of gestation.	K	KH	Y	Lecture/ SGD	Written /Viva voce			
Classify the neonate as per intrauterine growth percentiles.	K	KH	Y	Lecture/ SGD	Written /Viva voce			
Define Neonatal Mortality Rate (NMR) and Perinatal Mortality Rate.	K	K	Y	Lecture, SGD.	Written /Viva voce			
Describe the characteristics of a normal term neonate.	K	K	Y	Lecture, SGD.	Written /Viva voce			
Describe the characteristics of the high-risk neonate.	K	K	Y	Lecture, SGD.	Written /Viva voce			
Explain the care of a normal neonate	K	KH	Y	Lecture, SGD	Written / Viva voce			
Enumerate the components of Essential Newborn Care	K	K	Y	Lecture, SGD	Written /Viva voce			
Enumerate the steps of care of the normal neonate at birth.	K	K	Y	Lecture, SGD.	Written /Viva voce			
Explain the care of the normal neonate during the postnatal period.	K	KH	Y	Lecture, SGD.	Written /Viva voce			
List the criteria for discharge of a normal neonate from the hospital	K	KH	Y	Lecture, SGD.	Written /Viva voce			

Topic: To promote and support optimal Breastfeeding for Infants		Number of competencies: (11)			Number of procedures that require certification: (01)				
PE 7.1	Awareness on the cultural beliefs and practices of breastfeeding	K	K	N	Lecture, SGD	Written/ Viva			OBG
7.1.1	Explain the harmless and harmful cultural beliefs and practices of breastfeeding.	K	K	N	Lecture, SGD	Written/Viva			
PE 7.2	Explain the Physiology of lactation	K	KH	Y	Lecture, SGD	Written/ Viva		Physio	
7.2.1	Describe the Anatomy of breast.	K	K	Y	Lecture, SGD	Written/viva			
7.2.2	Explain the Physiology of lactation.	K	KH	Y	Lecture, SGD	Written/viva		Physio	
PE 7.3	Describe the composition and types of breast milk and Discuss the differences between cow's milk and Human milk	K	KH	Y	Lecture, SGD	Written/ viva voce		Physio	
7.3.1	Describe the composition of breast milk.	K	K	Y	Lecture, SGD,	Written/viva voce			
7.3.2	Describe the composition of cow's milk.	K	K	Y	Lecture, SGD	Written/viva voce			
7.3.3	Enumerate the differences between breast milk and cow's milk.	K	KH	Y	Lecture, SGD,	Written/viva voce			
7.3.4	Describe the various types of breast milk and their characteristic composition.	K	K	Y	Lecture, SGD,	Written/viva voce			
PE 7.4	Discuss the advantages of breast milk	K	KH	Y	Lecture, SGD	Written/viva voce			
7.4.1	Enumerate the advantages of breast milk.	K	KH	Y	Lecture, SGD	Written/viva voce			
PE 7.6	Enumerate the baby friendly hospital initiatives	K	KH	Y	Lecture, SGD	Written/ viva voce			

PE7.6.1	Enumerate components of the baby friendly hospital initiative.	K	KH	Y	Lecture, SGD	Written short notes/viva voce			
7.7.1	Enumerate common problems in the mother during lactation.	K	K	Y	Lecture, Bedside, skills lab	Written/viva voce			
7.9.1	Enumerate the best breastfeeding practices.	K	K	Y	Lecture, SGD	Written/viva voce			
Topic: Complementary Feeding		Number of competencies: (5)			Number of procedures that require certification: (NIL)				
PE 8.1	Define the term Complementary Feeding	K	K	Y	Lecture, SGD	Written/ Viva voce		Com Med	
PE 8.1.1	Define complementary feeding.	K	K	Y	Lecture, SGD	Written/viva voce			
PE 8.2	Discuss the principles, the initiation, attributes, frequency, technique and hygiene related to complementary feeding including IYCF	K	KH	Y	Lecture, SGD	Written/ Viva voce		Com Med	
8.2.1	Describe the principles of complementary feeding.	K	K	Y	Lecture, SGD	Written/viva voce			
8.2.2	Narrate the types and attributes of good complementary foods.	K	KH	Y	Lecture, SGD	Written/viva voce			
8.2.3	Describe the initiation of complementary feeding in different situations.	K	K	Y	Lecture, SGD	Written/viva voce			
8.2.4	Describe the frequency of complementary feeding in different situations.	K	KH	Y	Lecture, SGD	Written/viva voce			
8.2.5	Describe the correct technique of complementary feeding.	K	KH	Y	Lecture, SGD	Written/viva voce			

8.2.6	Enumerate the hygienic practices to be followed during complementary feeding.	K	KH	Y	Lecture, SGD	Written/viva voce			
PE 8.3	Enumerate the common complimentary foods	K	K	Y	Lecture, SGD	Written/ Viva voce		Com Med	
PE 8.3.1	Enumerate common locally available complementary foods.	K	K	Y	Lecture, SGD	SAQ, viva voce			

Topic: Diarrheal diseases and Dehydration		Number of competencies: (17)		Number of procedures that require certification: (03)					
PE 24.1	Discuss the etiopathogenesis, classification, clinical presentation and management of diarrheal diseases in children.	K	KH	Y	Lecture/ SGD	Written / viva voce		Path Micro	
24.1.1	Explain etiopathogenesis of Diarrheal diseases in children.	K	K	Y	Lecture/ SGD	Written/ Viva Voce		Path Micro	
24.1.2	Classify Diarrheal disease based on duration and etiology.	K	KH	Y	Lecture/ SGD	Written/ Viva Voce		Path Micro	
24.1.3	Describe symptoms and signs of Diarrheal disease in children.	K	KH	Y	Lecture/ SGD	Written/ Viva Voce			
24.1.4	Enumerate investigations required for Diarrheal disease in children.	K	K	Y	Lecture/ SGD	Written/ Viva Voce		Path Micro	
24.1.5	Outline the treatment plan of Diarrheal disease in children.	K	KH	Y	Lecture/ SGD	Written/ Viva Voce			
PE 24.2	Discuss the classification and clinical presentation of various types of diarrheal dehydration	K	KH	Y	Lecture / SGD	Written / viva voce		Path, Micro	
24.2.1	Enumerate all the signs and symptoms of dehydration in children.	K	K	Y	Lecture/ Small group activity	Written/ Viva Voce			
24.2.2	Classify dehydration as per WHO guidelines.	K	KH	Y	Lecture/ SGD	Written/Viva Voce			

24.2.3	Enumerate the clinical features of dehydration of different severity.	K	KH	Y	Lecture/ SGD	Written/Viva Voce			
PE 24.3	Discuss the physiological basis of ORT, types of ORS and the composition of various types of ORS in children	K	KH	Y	Lecture/ SGD	Written/ viva voce			
24.3.1	Explain pathophysiology of fluid and electrolyte loss in Diarrheal diseases.	K	KH	Y	Lecture/ SGD	Written/Viva voce			
24.3.2	State the basis of fluid and electrolyte replacement in Diarrheal diseases.	K	KH	Y	Lecture/ SGD	Written/Viva voce			
24.3.3	Recall composition of WHO standard ORS.	K	KH	Y	Lecture/ SGD	Written/Viva voce			
24.3.4	Recall composition of other type of ORS viz ResoMal, Low osmolarity ORS.	K	KH	Y	Lecture/ SGD	Written/Viva voce			
PE 24.4	Discuss the types of fluid used in Pediatric diarrheal diseases and their composition	K	KH	Y	Lecture / SGD	Written/ viva voce			
24.4.1	Enumerate the types of fluids used in management of dehydration in children.	K	K	Y	Lecture SGD	Written / Viva voce			
24.4.2	Describe the composition of Ringer lactate and Normal saline and rationale of their use in correction of dehydration.	K	K	Y	Lecture SGD	Written / Viva voce			
PE 24.5	Discuss the role of antibiotics, antispasmodics, anti- secretory drugs, probiotics, anti-emetics in acute diarrheal diseases	K	KH	Y	Lecture / SGD	Written / viva voce		Pharm, Micro	
24.5.1	Describe harmful practices in treatment of diarrheal diseases in children	K	KH	Y	Lecture SGD	Written / Viva voce			
24.5.2	Enumerate the indications of antibiotic therapy in diarrheal diseases in children	K	K	Y	Lecture SGD	Written / Viva voce			

24.5.3	Describe role, dosage and duration of Zinc therapy in Diarrheal diseases in children	K	KH	Y	Lecture SGD	Written / Viva voce			
24.5.4	Interpret selective role of probiotics, anti-secretory drugs, antispasmodics and antiemetics in acute diarrheal diseases.	K	KH	Y	Lecture SGD	Written / Viva voce			
PE 34.14	Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of fever in children	K	KH	Y	Lecture/ SGD	Written/viva voce		Micro	
34.14.1	Enumerate the common causes of fever in children.	K	KH	Y	Lecture/ SGD	Written/viva voce			
34.14.2	Describe the pathophysiology of fever in children.	K	KH	Y	Lecture/ SGD	Written/viva voce			
34.14.3	List the clinical features associated with fever in children which aid in diagnosis.	K	KH	Y	Lecture/ SGD	Written/viva voce			
34.14.4	Recall the complications of fever in children.	K	KH	Y	Lecture/ SGD	Written/viva voce			
34.14.5	Elaborate the management of fever in children.	K	KH	Y	Lecture/ SGD	Written/viva voce			
PE 30.7	Discuss the etiopathogenesis, clinical features, complications and management of Febrile seizures in children	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.7.1	Define Febrile seizures.	K	K	Y	Lecture, SGD	Written/ Viva voce			
30.7.2	Enumerate causes of Febrile seizures.	K	K	Y	Lecture, SGD	Written/ Viva voce			
30.7.3	Describe the pathogenesis of Febrile seizures.	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.7.4	Classify types of Febrile seizures.	K	KH	Y	Lecture, SGD	Written/ Viva voce			

30.7.5	Describe the clinical features of different types of Febrile seizures.	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.7.6	Enumerate complications of Febrile seizures.	K	K	Y	Lecture, SGD	Written/ Viva voce			
30.7.7	Enumerate the investigations for diagnosis of Febrile seizures and the cause of the underlying fever.	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.7.8	Describe the standard treatment for Febrile seizures in children including intermittent prophylaxis and treatment of cause of fever.	K	KH	Y	Lecture, SGD	Written/ Viva voce			

Topic: Diarrhoeal diseases and Dehydration		Number of competencies: (17)		Number of procedures that require certification: (03)					
PE 24.1	Discuss the etiopathogenesis, classification, clinical presentation and management of diarrheal diseases in children.	K	KH	Y	Lecture/ SGD	Written / viva voce		Path Micro	
24.1.1	Explain etiopathogenesis of Diarrheal diseases in children.	K	K	Y	Lecture/ SGD	Written/ Viva Voce		Path Micro	
24.1.2	Classify Diarrheal disease based on duration and etiology.	K	KH	Y	Lecture/ SGD	Written/ Viva Voce		Path Micro	
24.1.3	Describe symptoms and signs of Diarrheal disease in children.	K	KH	Y	Lecture/ SGD	Written/ Viva Voce			
24.1.4	Enumerate investigations required for Diarrheal disease in children.	K	K	Y	Lecture/ SGD	Written/ Viva Voce		Path Micro	
24.1.5	Outline the treatment plan of Diarrheal disease in children.	K	KH	Y	Lecture/ SGD	Written/ Viva Voce			
PE 24.2	Discuss the classification and clinical presentation of various types of diarrheal dehydration	K	KH	Y	Lecture / SGD	Written / viva voce		Path, Micro	

24.2.1	Enumerate all the signs and symptoms of dehydration in children.	K	K	Y	Lecture/ Small group activity	Written/ Viva Voce			
24.2.2	Classify dehydration as per WHO guidelines.	K	KH	Y	Lecture/ SGD	Written/Viva Voce			
24.2.3	Enumerate the clinical features of dehydration of different severity.	K	KH	Y	Lecture/ SGD	Written/Viva Voce			
PE 24.3	Discuss the physiological basis of ORT, types of ORS and the composition of various types of ORS in children	K	KH	Y	Lecture/ SGD	Written/ viva voce			
24.3.1	Explain pathophysiology of fluid and electrolyte loss in Diarrheal diseases.	K	KH	Y	Lecture/ SGD	Written/Viva voce			
24.3.2	State the basis of fluid and electrolyte replacement in Diarrheal diseases.	K	KH	Y	Lecture/ SGD	Written/Viva voce			
24.3.3	Recall composition of WHO standard ORS.	K	KH	Y	Lecture/ SGD	Written/Viva voce			
24.3.4	Recall composition of other type of ORS viz ResoMal, Low osmolarity ORS.	K	KH	Y	Lecture/ SGD	Written/Viva voce			
PE 24.4	Discuss the types of fluid used in Pediatric diarrheal diseases and their composition	K	KH	Y	Lecture / SGD	Written/ viva voce			
24.4.1	Enumerate the types of fluids used in management of dehydration in children.	K	K	Y	Lecture SGD	Written / Viva voce			
24.4.2	Describe the composition of Ringer lactate and Normal saline and rationale of their use in correction of dehydration.	K	K	Y	Lecture SGD	Written / Viva voce			

PE 24.5	Discuss the role of antibiotics, antispasmodics, anti- secretory drugs, probiotics, anti-emetics in acute diarrheal diseases	K	KH	Y	Lecture / SGD	Written / viva voce		Pharm, Micro	
24.5.1	Describe harmful practices in treatment of diarrheal diseases in children	K	KH	Y	Lecture SGD	Written / Viva voce			
24.5.2	Enumerate the indications of antibiotic therapy in diarrheal diseases in children	K	K	Y	Lecture SGD	Written / Viva voce			
24.5.3	Describe role, dosage and duration of Zinc therapy in Diarrheal diseases in children	K	KH	Y	Lecture SGD	Written / Viva voce			
24.5.4	Interpret selective role of probiotics, anti-secretory drugs, antispasmodics and antiemetics in acute diarrheal diseases.	K	KH	Y	Lecture SGD	Written / Viva voce			
PE 24.6	Discuss the causes, clinical presentation and management of persistent diarrhea in children	K	KH	Y	Lecture / SGD	Written/ viva voce	Nil	Micro	
24.6.1	Define Persistent diarrhea in children.	K	KH	Y	Lecture SGD	Written and viva voce			
24.6.2	Enumerate causes of persistent diarrhea in children.	K	KH	Y	SGD	Written and viva voce			
24.6.3	Describe clinical presentation in child with persistent diarrhea.	K	KH	Y	Lecture SGD	Written and viva voce			
24.6.4	List investigations in persistent diarrhea.	K	KH	Y	Lecture SGD	Written and viva voce			
24.6.5	Outline the treatment plan in persistent diarrhea.	K	KH	Y	Lecture SGD	Written and viva voce			
PE 24.7	Discuss the causes, clinical presentation and management of chronic diarrhea in children.	K	KH	Y	Lecture / SGD	Written / via voce			
24.7.1.	Define chronic diarrhea in children.	K	KH	Y	Lecture / SGD	Written/ viva			
24.7.2	Enumerate the common causes of chronic diarrhea in children.	K	K	Y	Lecture / SGD	Written and viva voce			

24.7.3	Describe symptoms and signs of chronic diarrhea.	K	KH	Y	Lecture / SGD	Written and viva voce			
24.7.4	Enumerate investigations for chronic diarrhea.	K	K	Y	Lecture / SGD	Written and viva voce			
24.7.5	Outline treatment of chronic diarrhea.	K	K	Y	Lecture / SGD	Written and viva voce			
24.7.6	Identify need of referral in a case of chronic diarrhea.	K	KH	Y	Lecture / SGD	Written and viva voce			
PE 24.8	Discuss the causes, clinical presentation and management of dysentery in children	K	KH	Y	Lecture / SGD	Written / viva voce	Nil	Pharm, Micro	
24.8.1	Define dysentery in children.	K	KH	Y	Lecture / SGD	Written, Viva voce			
24.8.2	Enumerate the etiological agents causing dysentery in children.	K	KH	Y	Lecture / SGD	Written / viva		Micro	
24.8.3	Describe symptoms and signs of dysentery in children.	K	KH	Y	Lecture / SGD	Written, Viva voce			
24.8.4	Outline the antibiotic therapy in children with dysentery.	K	KH	Y	Lecture/ SGD	Written/viva		Pharm	

Topic: Malabsorption

Number of competencies: (1)

Number of procedures that require certification: (NIL)

PE 25.1	Discuss the etiopathogenesis, clinical presentation and management of Malabsorption in Children and its causes including celiac disease.	K	KH	N	Lecture / SGD	Written/ viva voce		Path	
25.1.1	Define malabsorption in children.	K	K	N	Lecture / SGD	Written/ Viva Voce			
25.1.2	Enumerate causes of malabsorption in children.	K	KH	N	Lecture / SGD	Written/ Viva Voce			
25.1. 3	Describe etiopathogenesis of malabsorption in children.	K	K	N	Lecture / SGD	Written/ Viva Voce			

25.1.4	Describe common symptoms and signs of mal-absorption in children.	K	K	N	Lecture / SGD	Written/ Viva Voce			
25.1.5	Describe presentations of celiac disease in children.	K	KH	N	Lecture / SGD	Written/ Viva Voce			
25.1.6	Enumerate investigations in case of celiac disease.	K	K	N	Lecture / SGD	Written/ Viva Voce			
25.1.7	Enumerate steps of treatment plan in case of celiac disease.	K	K	N	Lecture / SGD	Written/ Viva Voce			

Topic: Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Guideline		Number of competencies: (3)		Number of procedures that require certification: (NIL)					
PE 16.1	Explain the components of Integrated Management of Neonatal and Childhood Illnesses (IMNCI) guidelines and method of Risk stratification	K	KH	Y	Lecture, SGD	Written/ viva voce			
16.1.1	State the components of IMNCI approach.	K	KH	Y	Lecture/ SGD, IMNCI videos	Written/ viva voce			
16.1.2	Explain the risk stratification as per IMNCI.	K	KH	Y	Lecture/ SGD	Written/ viva voce			
Topic: The National Health programs, NHM		Number of competencies: (02)		Number of procedures that require certification: (NIL)					
PE 17.1	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, RSK, JSSK, mission Indradhanush and ICDS	K	KH	Y	Lecture/ SGD	Written/ viva voce		Com Med	

17.1.1	List the national health programs pertaining to maternal and child health.	K	KH	Y	Lecture / SGD	Written/viva voce			
17.1.2	Outline vision, goals, strategies and plan of action of NHM.	K	KH	Y	Lecture/ SGD	Written/viva voce			
17.1.3	Outline the vision, goals, strategies and plan of action of other important national programs for maternal and child health -RMNCH A+, RBSK, RSK, JSSK, mission Indradhanush and ICDS.	K	KH	Y	Lecture/ SGD	Written/viva voce			

Topic: The National Health Programs: RCH		Number of competencies: (8)		Number of procedures that require certification: (NIL)					
PE 18.1	List and explain the components, plan, outcome of Reproductive Child Health (RCH) program and appraise its monitoring and evaluation	K	KH	Y	Lecture/ SGD	Written/ viva voce		Com Med	OBG
18.1.1	State the components, strategy and targeted outcome of RCH program.	K	KH	Y	Lecture/ SGD	Written/viva voce			
18.1.2	List the prerequisites and role of accredited social health activist (ASHA).	K	KH	Y	Lecture/ SGD	Written/viva voce			
18.1.3	Analyze the monitoring and evaluation of RCH program.	K	KH	Y	Lecture/ SGD	Written/viva voce			
PE 18.2	Explain preventive interventions for child survival and safe motherhood	K	KH	Y	Lecture/ SGD	Written/viva voce		Com Med	OBG
18.2.1	List the preventive interventions for child survival and safe motherhood.	K	KH	Y	Lecture/ SGD	Written/viva voce			
18.2.2	Explain the preventive interventions for child survival and safe motherhood.	K	KH	Y	Lecture/ SGD	Written/viva voce			

Topic: The role of the physician in the community	Number of competencies: (1)	Number of procedures that require certification: (NIL)
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
List common medicolegal issues related to healthcare in children	K KH Y Interactive lecture	Written/ viva - Forensic
List common socio-cultural issues related to healthcare in children	K KH Y Interactive lecture/ community visit	Written/ viva - Com Med

Competencies and SLOs for Clinical Postings

Topic: Growth and Development								
PE 1.7	Perform Developmental assessment and interpret	S	P	N	Bedside/ skills lab	Document in Logbook		
1.7.1	Perform Developmental assessment in infants and children and interpret the findings.	S	P	N	Bedside/ skills lab	Document in Logbook/skill lab		
PE 2.2	Assessment of a child with failure to thrive including eliciting an appropriate history and examination	S	SH	Y	Bedside clinics	Skills station		
2.2.1	Elicit an appropriate history in a child with failure to thrive.	S	SH	Y	Bedside clinics	OSCE/ Clinical case		
2.2.2	Perform a complete physical examination in a child with failure to thrive.	S	SH	Y	Bedside clinics	OSCE/ Clinical case		

Topic: Nutrition									
P E 9.6	Assess and classify the nutrition status of infants, children and adolescents and recognize deviations	S	SH	Y	Bedside clinic, SGD	Skill Assessment		Com Med	
9.6.1	Assess nutritional status from anthropometric parameters for children of all age groups.	S	P	Y	Bedside clinic, SGD	OSCE, Bedside			
9.6.2	Interpret the anthropometric measurement data by plotting in appropriate WHO growth charts for children of all age groups and gender.	S	P	Y	Bedside clinic, SGD	OSCE			
9.6.3	Classify the type and degree of undernutrition using the WHO charts.	S	SH	Y	Bedside clinic, SGD	OSCE			
9.6.4	Identify overnutrition (overweight and obesity) by using WHO charts.	S	SH	Y	Bedside clinic, SGD	OSCE			
P E 9.7	Plan an appropriate diet in health and disease	S	SH	N	Bedside clinic, SGD	Document in Logbook		Com Med	
9.7.1	Plan a diet for a healthy child of all age groups.	S	SH	N	Bedside clinic, SGD	Document in Logbook			
9.7.2	Plan an age appropriate diet for child of different age groups with under nutrition/ over nutrition.	S	SH	N	Bedside clinic, SGD	Document in Logbook			
12.3.1	Identify the clinical features of Vitamin A Deficiency/excess in children.	S	SH	Y	SGD/clinical photographs/bedside teaching	OSCE/case presentation		Oph-thal-mology	

PE 12.9	Assess patients with Vitamin D deficiency, diagnose, classify and plan management	S	SH	Y	Bedside, skill lab	Document in Logbook		Bio-chemistry, Radiology	
12.9.1	Diagnose patients with VDD.	S	SH	Y	Bedside	Document in Logbook/OSCE			
12.9.2	Classify the patient with VDD.	S	SH	Y	Skill Station, Bedside	Skill station, Document in Logbook			
12.9.3	Plan management and follow-up of VDD patient.	S	SH	Y	Skill station	Logbook			
12.18.2	Plan management for a child with vitamin B complex deficiency	S	SH	Y	Skill Station, Bedside, Case-based learning	Skill station, Document in Logbook			
PE 12.21	Identify the clinical features of vitamin C deficiency	S	SH	N	Bedside, Skill lab	Document in Logbook			
12.21.1	Identify the clinical features of deficiency of vitamin C.	S	SH	N	Clinical case /slides/bedside teaching	Document in Logbook OSCE			
12.21.2	Differentiate the clinical features of deficiency of vitamin C (scurvy) from those due to VDD (rickets).	S	SH	N	Clinical case or photograph/ bedside teaching	Document in Logbook, OSCE/case			
Topic : Neonatology									
PE 18.6	Perform Postnatal assessment of newborn and mother, provide advice on breastfeeding, weaning and on family planning	S	SH	Y	Bedside, Skill Lab	Skill Assessment		Com Med	OBG
18.6.1	Perform postnatal assessment of newborn.	S	SH	Y	Bedside, Skill Lab	Skill Assessment			

18.6.2	Perform postnatal assessment of mother.	S	SH	Y	Bedside, Skill Lab	Skill Assessment			
PE18.8	Observe the implementation of the program by visiting the Rural Health Center	S	SH	Y	Bedside, Skill Lab	Document in Logbook		Com Med	OBG
Topic: Genito urinary system									
PE 21.8	Elicit, document and present a history pertaining to diseases of the Genitourinary tract	S	SH	Y	Bedside, Skills lab	Skill Assessment			
21.8.1	Elicit clinical history pertaining to genito-urinary diseases in children.	S	SH	Y	Bedside, Skills lab	Skill Assessment			
21.8.2	Perform a complete physical examination for a child with genitourinary diseases.	S	SH	Y	Bedside, Skills lab	Skill Assessment			
21.8.4	Document the complete history in the Logbook.	S	SH	Y	Bedside, Skills lab	Skill Assessment			
PE 21.9	Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Ichthyosis, anasarca	S	SH	Y	Bedside, Skills lab	Document in Logbook			
21.9.1	Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Ichthyosis, anasarca.	S	SH	Y	Bedside, Skills lab	Document in Logbook			
PE 21.10	Analyze symptom and interpret the physical findings and arrive at an appropriate provisional differential diagnosis	S	SH	Y	Bedside, Skills lab	Logbook			
21.10.1	Analyze symptoms and interpret the physical findings and arrive at an appropriate provisional differential diagnosis.	S	SH	Y	Bedside, Skills lab	Logbook			

PE 21.11	Perform and interpret the common analytes in a Urine examination	S	SH	Y	Bedside, Skills lab	Skill assessment			
21.11.1	Perform at least one test to elicit Proteinuria.	S	SH	Y	Bedside, Skills lab	Skill assessment			
21.11.2	Interpret the tests for proteinuria and their significance.	S	SH	Y	Bedside, Skills lab	Skill assessment			
21.11.3	Perform test for evaluating Urine PH.	S	SH	Y	Bedside, Skills lab	Skill assessment			
21.11.4	Perform urine microscopy.	S	SH	Y	Bedside, Skills lab	Skill assessment			
21.11.5	Identify the abnormal deposits and Interpret the urine microscopy findings.	S	SH	Y	Bedside, Skills lab	Skill assessment			
21.11.6	Test the urine for glucosuria.	S	SH	Y	Bedside, Skills lab	Skill assessment			
21.11.7	Interpret the urine sugar results.	S	SH	Y	Bedside, Skills lab	Skill assessment			

Topic: Diarrheal diseases and dehydration

PE 24.11	Apply the IMNCI guidelines in risk stratification of children with diarrheal dehydration and refer	S	SH	Y	Bedside / skill lab	Document in Logbook			
24.11.1	Apply risk stratification of children with diarrheal dehydration as per IMNCI guidelines.	S	SH	Y	Bedside / skill lab	Document in Logbook			
24.11.2	Identify need for referral in a case of diarrheal dehydration based on risk stratification as per IMNCI.	S	SH	Y	Bedside, Skill lab	Document in Logbook			

PE 24.12.1	Perform and interpret stool examination including Hanging Drop	S	SH	N	Bedside, Skill lab	Document in Logbook		Micro	
24.12.1	Prepare slide for stool examination under microscope.	S	SH	N	Bedside, Skill lab	Document in Logbook			
24.12.2	Correctly identify pathogen after microscopic examination of stool.	S	SH	N	Bedside, Skill lab	Document in Logbook			
24.12.3	Correctly perform hanging drop preparation from stool sample given.	S	SH	N	Bedside, Skill lab	Document in Logbook			
PE 24.14	Plan fluid management as per the WHO criteria	S	SH	Y	Bedside, Small group activity	Skill lab			
24.14.1	Calculate amount, route and duration of therapy of fluid to be given as per Plan A, for a given age and weight of a child.	S	SH	Y	Bedside, Small group activity	Skill lab			
24.14.2	Calculate amount, route and duration of therapy of fluid to be given as per Plan B, for a given age and weight of a child.	S	SH	Y	Bedside, Small group activity	Skill lab			
24.14.3	Calculate amount, route and duration of therapy of fluid to be given as per Plan C for age and weight of a child.	S	SH	Y	Bedside, Small group activity	Skill lab			

Topic: Respiratory system

PE 28.13	Analyze the clinical symptoms and interpret physical findings and make a provisional / differential diagnosis in a child with ENT symptoms	S	SH	Y	Bedside	Skills Assessment			
28.13.1	Discuss the provisional/ differential diagnosis in a child with ENT symptoms after analysis of history and physical examination.	S	SH	Y	Bedside	Skills Assessment/OS CE /Clinical Case			

PE 28.15	Stratify risk in children with stridor using IMNCI guidelines	S	SH	Y	Bedside	Logbook documentation		
28.15.1	Classify the child with stridor as per IMNCI guidelines	S	SH	Y	Bedside	Logbook documentation/ clinical case		
PE 28.16	Interpret blood tests relevant to upper respiratory problems	S	SH	N	Bedside, SGD	Logbook		
28.16.1	Plan and interpret the relevant blood test in a patient with upper respiratory problems	S	SH	N	Bedside, SGD	Logbook		
PE 28.17	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, SGD	Skills Assessment	ENT, Radiology	
28.17.1	Interpret the X-ray of paranasal sinuses and mastoid for various common diseases	S	SH	Y	Bedside, SGD	OSCE/ Skills Assessment		
28.17.2	Interpret the chest X-ray for identifying suspected FB aspiration and lower respiratory tract infection	S	SH	Y	Bedside, SGD	Skills Assessment/OSCE		
28.17.3	Identify thymic shadow in chest X-ray.	S	SH	Y	Bedside, SGD	Skills Assessment/OSCE		
28.17.4	Plan the treatment after interpreting X-ray and/or its written report.	S	SH	Y	Bedside, SGD	Skills Assessment/ OSCE		

Topic: Anaemia								
PE 29.10	Elicit, document and present the history related to Hematology.	S	SH	Y	Bedside, Skills lab	Skill Station		
29.10.1	Elicit the history related to a hematological disorder.	S	SH	Y	Bedside, Skills lab	Skill Station		
29.10.2	Document the history.	S	SH	Y	Bedside, Skills lab	Skill Station		
29.10.3	Present the history	S	SH	Y	Bedside, Skills lab	Skill Station		
PE 29.11	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, Skills Lab	Skill assessment		
29.11.1	Identify jaundice, pallor, petechial spots, purpura, ecchymosis, lymphadenopathy, bone tenderness, Mucosal and large joint bleed in a patient of hematological disorder.	S	SH	Y	Bedside, Skills Lab	Skill assessment		
PE 29.12	Perform examination of the abdomen, demonstrate Organomegaly.	S	SH	Y	Bedside, Skills Lab.	Skill assessment		
29.12.1	Perform per abdomen examination.	S	SH	Y	Bedside, Skills Lab	Skill assessment		
29.12.2	Demonstrate organomegaly in a child after abdominal examination.	S	SH	Y	Bedside, Skills Lab	Skill assessment		
PE 29.14	Interpret CBC, LFT	S	SH	Y	Bedside, Skills Lab	Skill assessment		

29.14.1	interpret Complete Blood Count Report	S	SH	Y	Bedside, Skills Lab	Skill assessment			
29.14.2	Interpret Liver Function Tests Report.	S	SH	Y	Bedside, Skills Lab	Skill assessment			
PE 29.19	Counsel and educate patients about prevention and treatment of anemia.	A/ C	SH	Y	Bedside, Skills Lab	Document in Logbook			
29.19.1	Counsel the parents empathetically about the diet and preventive measures for anemia.	A/C	SH	Y	Bedside, Skills Lab	Document in Logbook			
29.19.2	Educate the patients/parents about the correct usage of drugs.	A/C	SH	Y	Bedside, Skills Lab	Document in Logbook			

Topic: Central Nervous System

30.18.1	Measure head circumference accurately.	S	SH	Y	Bedside, Skills lab	OSCE			
30.18.2	Recognize neurocutaneous markers.	S	SH		Bedside/skill lab/ pictures/ video	OSCE			
30.18.3	Do a complete CNS examination in children of different ages.	S	SH		Bedside/ skill lab	Skill lab			
30.18.4	Recognize involuntary movements.	S	SH		Bedside/skill lab/ pictures/ video	OSCE			
30.18.5	Examine for signs of meningeal irritation.	S	SH		Bedside/ skill lab	Skill lab			
30.18.6	Document and present clinical findings.	S	SH		Bedside/ skill lab	Clinical case			

Topic: Atopic Dermatitis, Bronchial Asthma									
PE 31.4	Identify clinical features of atopic dermatitis and manage	S	SH	Y	Bedside, skill lab	Skill assessment		Derm,	
31.4.1	Identify clinical features of atopic dermatitis	S	SH	Y	Bedside, skill lab	Skill assessment		Derm	
31.4.2	Make a plan for local and supportive therapy for children with atopic dermatitis	S	SH	Y	Bedside, skill lab	Skill assessment			
31.4.3	Plan appropriate systemic therapy for children with atopic dermatitis	S	SH	Y	Bedside, skill lab	Skill assessment			
PE 31.6	Recognize symptoms and signs of asthma in a child	S	SH	Y	Bedside, skill lab	Skill assessment			
31.6.1	Recognize symptoms and signs of asthma in a child	S	SH	Y	Bedside, skill lab	Skill assessment			
Topic: Chromosomal Abnormalities									
PE 32.2	Identify the clinical features of Down Syndrome	S	SH	Y	Bedside, Skills lab	Logbook		Med	
32.2.1	Identify common clinical features in a child with Down syndrome	S	SH	Y	Bedside clinic	Bedside /OSCE			
PE 32.3	Interpret normal Karyotype and recognize Trisomy 21	S	SH	Y	Bedside, Skills lab	Logbook			Med

Topic: Endocrinology								
PE 33.2	Recognize the clinical signs of Hypothyroidism and refer	S	SH	Y	Bedside, Skill Lab	Skill Assessment		
33.2.1	Recognize hypothyroidism by taking appropriate history and focused physical examination	S	SH	Y	Bedside	Skill assessment		
33.2.2	Identify the need to refer the child to higher center	S/C	SH	Y	Bedside, skill lab	OSCE with SP		
PE 33.5	Interpret Blood sugar reports and explain the diagnostic criteria for Type 1 Diabetes	S	SH	Y	Bedside clinic, small group activity	Skill Assessment		
33.5.1	Identify Type 1 Diabetes from a given blood report as per latest diagnostic criteria of DM (American Diabetes Association, 2016)	K/S	SH	Y	Bedside, SGD	OSCE		
PE 33.9	Perform Sexual Maturity Rating (SMR) and interpret	S	SH	Y	Bedside, skill lab	Skill Assessment		
33.9.1	Perform SMR staging maintaining full dignity of the adolescent patient and interpret it correctly	K/S	SH	Y	Bedside, skill lab	OSCE		
Topic: Vaccine preventable diseases-Tuberculosis								
PE 34.5	Able to elicit, document and present history of contact with tuberculosis in every patient encounter	S	SH	Y	Bedside, Skills lab	Skill Assessment		Resp Med
34.5.1	Elicit history of contact with tuberculosis in every patient encounter	S	SH	Y	Bedside, Skills lab	Skill Assessment		

34.5.2	Document history of contact with tuberculosis in every patient encounter	S	SH	Y	Bedside, Skills lab	Skill Assessment			
34.5.3	Present history of contact with tuberculosis in every patient encounter	S	SH	Y	Bedside, Skills lab	Skill Assessment			
PE 34.6	Identify a BCG scar	S	P	Y	Bedside, Skills lab	Skill Assessment	3	Micro	Re sp Med
34.6.1	Identify a BCG scar in a child	S	P	Y	Bedside, Skills lab	Skill Assessment	3		
Topic: Cardiovascular System									
PE 23.7	Elicit appropriate history for a cardiac disease, analyze 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.	S	SH	Y	Bedside, Skills lab	Bed side/skill assessment			

Competencies and SLOs for theory classes

Topic: Provide nutritional support, assessment and monitoring for common nutritional problems Number of competencies: (6)		Number of procedures that require certification: (NIL)						
P E 10.1	Define and Describe the etiopathogenesis, classify including WHO classification, clinical features, complication and management of severe acute malnourishment (SAM) and moderate acute Malnutrition (MAM)	K	KH	Y	Lecture, SGD	Written/ Viva voce		Physio, Biochemistry,
10.1.1	Define malnutrition as per WHO.	K	K	Y	Lecture, SGD	Written/ Viva voce		
10.1.2	Describe the aetiology of malnutrition.	K	KH	Y	Lecture, SGD	Written/ Viva voce		
10.1.3	Discuss the pathophysiology of malnutrition.	K	KH	Y	Lecture, SGD	Written/ Viva voce		
10.1.4	Classify the malnutrition as per WHO.	K	KH	Y	Lecture, SGD	Written/ Viva voce		
10.1.5	Describe the criteria for severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) as per WHO.	K	KH	Y	Lecture, SGD	Written/ Viva voce		
10.1.6	Describe the clinical features of MAM and SAM including marasmus and kwashiorkor.	K	KH	Y	Lecture, SGD	Written/ Viva voce		
10.1.7	Describe the complications of SAM.	K	KH	Y	Lecture, SGD	Written/ Viva voce		
10.1.8	Describe the steps of management of SAM involving stabilization and rehabilitation phase.	K	KH	Y	Lecture, SGD	Written/ Viva voce		

10.1.9	Describe the domiciliary management of moderate acute malnutrition (MAM).	K	KH	Y	Lecture, SGD	Written/ Viva voce		
P E 10.2	Outline the clinical approach to a child with SAM and MAM	K	KH	Y	Lecture, SGD	Written/ Viva voce	Physio, Biochem- is try	
10.2.1	Describe the clinical approach (algorithmic approach including clinical history, examination and investigations) to a child with SAM and MAM.	K	KH	Y	Lecture, SGD	Written/ Viva voce		
P E 10.6	Enumerate the role of locally prepared therapeutic diets and ready to use therapeutic diets	K	K	N	Lecture, SGD	Written/ Viva voce		
10.6.1	Enumerate the composition of Ready to use therapeutic foods (RUTF).	K	K	N	Lecture, SGD	Written / viva voce		
10.6.2	Enumerate the locally available home food prepared with cereals, pulses, sugar, oil, milk and/ or egg etc.	K	K	N	Lecture, SGD	Written / viva voce		
10.6.3	Discuss the role of RUTF/locally prepared food to achieve catch-up growth in malnourished child.	K	KH	N	Lecture, SGD	Written / viva voce		

Topic: Common problems related to Growth		Number of competencies: (6)		Number of procedures that require certification: (NIL)				
PE 2.1	Discuss the etiopathogenesis, clinical features and management of a child who fails to thrive	K	KH	Y	Lecture/ SGD	Written/viva voce		
2.1.1	Discuss the etiopathogenesis of a child who fails to thrive.	K	KH	Y	Lecture/ SGD	Written/viva voce		
2.1.2	Describe the clinical features of a child who fails to thrive.	K	KH	Y	Lecture/ SGD	Written/viva voce		

2.1.3	Discuss the management of a child who fails to thrive.	K	KH	Y	Lecture/ SGD	Written/viva voce			
-------	--	---	----	---	--------------	-------------------	--	--	--

PE 2.4	Discuss the etiopathogenesis, clinical features and management of a child with short stature	K	KH	Y	Lecture/ SGD	Written/viva voce
2.4.1	Enumerate causes of short stature in children.	K	KH	Y	Lecture/ SGD	Written/viva Voce
2.4.2	Describe the clinical features of a child with short stature.	K	KH	Y	Lecture/ SGD	Written/viva voce
2.4.3	Discuss the management of a child with short stature.	K	KH	Y	Lecture/ SGD	Written/viva voce
PE2.6	Enumerate the referral criteria for growth related problems	K	K	Y	Lecture /SGD	Written/viva Voce
2.6.1	Enumerate the referral criteria for growth related problems	K	K	Y	Lecture /SGD	Written/viva voce

Topic: Obesity in children Number of competencies: (6)		Number of procedures that require certification: (01)						
P E 11.1	Describe the common etiology, clinical features and management of obesity in children	K	KH	Y	Lec- ture/ SGD	Written/ Viva voce	NIL	Physio/ Bio- chemis- try/ Path
11.1.1	Define Obesity and overweight as per WHO guidelines.	K	K	Y	Lecture, SGD	Written / viva voce		
11.1.2	Enumerate common causes of Obesity among children.	K	K	Y	Lecture, SGD	Written / viva voce		
11.1.3	Describe clinical features of obesity including co-morbidities.	K	KH	Y	Lecture, SGD	Written / viva voce		
11.1.3	Outline principles of management of Obesity in children.	K	KH	Y	Lecture, SGD	Written / viva voce		

P E 11.2	Discuss the risk approach for obesity and Discuss the prevention strategies	K	KH	Y	Lecture, SGD	Written/ Viva voce		Physio, Path	
11.2.1	Enumerate risk factors for Obesity among children.	K	KH	Y	Lecture, SGD	Written / viva voce			
11.2.2	Describe strategies for prevention of Obesity.	K	KH	Y	Lecture, SGD	Written / viva voce			

Topic: Common problems related to Development -1 (Developmental delay)		Number of competencies: (8)		Number of procedures that require certification: (NIL)					
PE.3.1	Define, Enumerate and Discuss the causes of developmental delay and disability including intellectual disability in children	K	K	Y	Lecture, SGD	Written/ viva- voce			
3.1.1	Define developmental delay.	K	K	Y	Lecture /SGD	Written/ viva- voce			
3.1.2	Enumerate causes of developmental delay.	K	K	Y	Lecture /SGD	Written/ viva- voce			
3.1.3	Define disability as per WHO.	K	K	Y	Lecture /SGD	Written/ viva- voce			
3.1.4	Define Intellectual disability in children.	K	K	Y	Lecture /SGD	Written/ viva- voce			
3.1.5	Grade intellectual disability in terms of intelligence quotient (IQ).	K	K	Y	Lecture /SGD	Written/ viva- voce			

PE3.2	Discuss the approach to a child with developmental delay	K	KH	Y	Lecture, SGD	Written/viva-voce			
3.2.1	Discuss clinical presentation of common causes of developmental delay.	K	KH	Y	Lecture, SGD	Written/Viva voce			
3.2.2	Enumerate investigations for developmental delay.	K	KH	Y	Lecture, SGD	Written/Viva voce			
3.2.3	Based on clinical presentation, make an investigation plan for a child with developmental delay.	K	KH	Y	Lecture, SGD	Written/Viva voce			
3.2.4	Discuss differential diagnosis of developmental delay.	K	KH	Y	Lecture, SGD	Written/Viva voce			
PE3.5	Discuss the role of the child developmental unit in management of developmental delay	K	K	N	Lecture, SGD	Written/Viva voce		Com Med	
3.5.1	Enumerate the structure and composition of staff at a child development unit.	K	K	N	Lecture /SGD	Written/Viva voce		Com Med	
3.5.2	Describe roles of a child development unit.	K	K	N	Lecture /SGD	Written/Viva voce		Com Med	
PE3.6	Discuss the referral criteria for children with developmental delay	K	K	Y	Lecture, SGD	Written/viva voce			
3.6.1	Enumerate clinical criteria for referral of a child with developmental delay.	K	K	Y	Lecture /SGD	Written/viva voce			
PE3.7	Visit a Child Developmental Unit and Observe its functioning	S	KH	Y	Lecture, SGD	Logbook entry		Com Med	
3.7.1	Observe and list the activities in the child developmental unit.	S	KH	Y	Lecture, SGD	Logbook entry		Com Med	

Topic: Common problems related to behaviour		Number of competencies: (3)		Number of procedures that require certification: (NIL)				
PE 5.1	Describe the clinical features, diagnosis and management of thumb sucking	K	K	N	Lecture, SGD	Written		
5.1.1	Describe clinical features of thumb sucking.	K	K	N	Lecture, SGD	Written/viva voce		
5.1.2	Describe diagnosis of thumb sucking.	K	K	N	Lecture, SGD	Written/viva voce		
5.1.3	Discuss management strategies for a child with thumb sucking.	K	K	N	Lecture, SGD	Written/viva voce		
PE 5.2	Describe the clinical features, diagnosis and management of feeding problems	K	K	N	Lecture, SGD	Written/viva voce		
5.2.1	Enumerate common feeding problems.	K	K	N	Lecture, SGD	Written/viva voce		
5.2.2	Discuss clinical presentations of feeding problems.	K	K	N	Lecture, SGD	Written/viva voce		
5.2.3	Discuss management strategies for a child with feeding problems.	K	K	N	Lecture, SGD	Written/viva voce		
PE 5.3	Describe the clinical features, diagnosis and management of nail-biting	K	K	N	Lecture, SGD	Written/ Viva Voce		
5.3.1	Describe features of nail biting.	K	K	N	Lecture, SGD	Written/ Viva Voce		
5.3.2	Discuss management of nail biting.	K	K	N	Lecture, SGD	Written/ Viva Voce		

PE 5.4	Describe the clinical features, diagnosis and management of breath holding spells.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.4.1	Describe a breath holding spell.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.4.2	Describe the types of breath holding spells.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.4.3	Discuss causes of breath holding spells.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.4.4	Discuss management of breath holding spells.	K	K	N	Lecture, SGD	Written/ Viva Voce			
PE 5.5	Describe the clinical features, diagnosis and management of temper tantrums	K	K	N	Lecture, SGD	Written/ Viva Voce			Psych
5.5.1	Describe presentation of a temper tantrum.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.5.2	Discuss causes of temper tantrum.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.5.3	Discuss management of temper tantrums.	K	K	N	Lecture, SGD	Written/ Viva Voce			
PE 5.6	Describe the clinical features, diagnosis and management of pica	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.6.1	Define pica.	K	K	N	Lecture, SGD	Written/ Viva Voce			

5.6.2	Discuss causes of pica.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.6.3	Discuss treatment of pica.	K	K	N	Lecture, SGD	Written/ Viva Voce			
PE 5.7	Describe the clinical features, diagnosis and management of fussy infant	K	K	N	Lecture, SGD	Written/ Viva Voce			Psych
5.7.1	Describe a fussy infant.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.7.2	Enumerate causes of fussiness in children.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.7.3	Discuss management of fussiness in a child.	K	K	N	Lecture, SGD	Written/ Viva Voce			
PE 5.8	Discuss the etiology, clinical features and management of enuresis.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.8.1	Define primary and secondary enuresis for boys and girls.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.8.2	Discuss etiology of primary and secondary enuresis.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.8.3	Discuss pharmacological and non-pharmacological management strategies for enuresis.	K	K	N	Lecture, SGD	Written/ Viva Voce			
PE 5.9	Discuss the etiology, clinical features and management of Encopresis.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.9.1	Describe Encopresis.	K	K	N	Lecture, SGD	Written/ Viva Voce			

5.9.2	Discuss causes of Encopresis.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.9.3	Describe management of Encopresis.	K	K	N	Lecture, SGD	Written/ Viva Voce			
PE 5.10	Discuss the role of child guidance clinic in children with behavioural problems and the referral criteria	K	K	N	Lecture, SGD	Written/ Viva Voce			Psych
5.10.1	Describe the role of a child guidance clinic in children with behavioural problems.	K	K	N	Lecture, SGD	Written/ Viva Voce			
5.10.2	Enumerate referral criteria for behavioural problems in children.	K	K	N	Lecture, SGD	Written/ Viva Voce			
PE 5.11	Visit to Child Guidance Clinic and observe functioning	K	KH	N	Lecture, SGD	Document in Logbooks			
5.11.1	Describe functioning of a Child Guidance Clinic.	K	KH	N	Lecture, SGD	Document in Logbooks			

Topic: National Programs, RCH-Universal Immunization program		Number of competencies: (16)			Number of procedures that require certification: (01)				
PE 19.1	Explain the components of the Universal Immunization Program (UIP) and the National Immunization Program (NIP)	K	KH	Y	Lecture/ SGD	Written/viva voce		Com Med, Micro, Bio-chemistry	
19.1.1	Explain the components of UIP and NIP.	K	KH	Y	Lecture/ SGD	Written/viva voce			
19.1.2	List the vaccines covered under UIP and NIP.	K	KH	Y	Lecture/ SGD	Written/viva voce			

PE 19.2	Explain the epidemiology of vaccine preventable diseases (VPDs)	K	KH	Y	Lecture/ SGD	Written/viva voce		Com Med, Micro, Biochemistry	
19.2.1	Describe the epidemiology of individual VPDs.	K	KH	Y	Lecture/ SGD	Written/viva voce			
PE 19.3	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/ SGD	Written/viva voce		Com Med, Micro,	
19.3.1	Classify vaccines according to type of vaccine.	K	KH	Y	Lecture/ SGD	Written/viva voce			
19.3.2	Describe the composition of the NIP vaccines including the strain used.	K	KH	Y	Lecture/ SGD	Written/viva voce			
19.3.3	State the dose, route and schedule of all vaccines under NIP.	K	KH	Y	Lecture/ SGD	Written/viva voce			
19.3.4	Recall the risks, benefits, side effects, indications and contraindications of vaccines under NIP.	K	KH	Y	Lecture/ SGD	Written/viva voce			
PE 19.4	Define cold chain and discuss the methods of safe storage and handling of vaccines	K	KH	Y	Lecture/ SGD	Written/viva voce		Com Med, Micro, Biochemistry	
19.4.1	Define cold chain and discuss its importance for vaccines.	K	KH	Y	Lecture/ SGD	Written/viva voce			
19.4.2	List the various cold chain equipment.	K	KH	Y	Lecture/ SGD	Written/viva voce			
19.4.3	Describe the appropriate storage of vaccines in domestic refrigerator, ice lined refrigerator (ILR) and vaccine carriers.	K	KH	Y	Lecture/ SGD	Written/viva voce			

19.4.4	Enumerate the precautions for maintaining vaccines at appropriate temperature including the use of vaccine vial monitor (VVM).	K	KH	Y	Lecture/ SGD	Written/viva voce		
19.4.5	Explain the method of cold chain maintenance during a vaccine session.	K	KH	Y	Lecture/ SGD	Written/viva voce		
PE 19.5	Discuss immunization in special situations – HIV positive children, immunodeficiency, pre-term, organ transplants, those who received blood and blood products, splenectomised children, adolescents, and travelers	K	KH	Y	Lecture/ SGD	Written/viva voce	Com Med, Micro, Bio-chemistry	
19.5.1	Explain immunization in special situations – HIV positive children, immunodeficiency, pre-term, organ transplants, those who received blood and blood products, splenectomised children, adolescents, travelers.	K	KH	Y	Lecture / SGD	Written/viva voce		
PE 19.8	Demonstrate willingness to participate in the national and subnational immunization days	A	SH	Y	Lecture/ small group discussion	Document in Logbook	Com Med	
PE 19.9	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/ Immunization clinic	Written/viva voce	AETCOM	
19.9.1	Describe the components of safe vaccine practices - patient education/counseling.	K	KH	Y	Lecture/ SGD	Written/ viva voce	AETCOM	

19.9.2	Describe adverse events following immunization and standard precautions to prevent them.	K	KH	Y	Lecture/ SGD	Written/viva voce		
19.9.3	List safe injection practices and documentation during immunization.	K	KH	Y	Lecture/ SGD	Written/viva voce		
19.9.4	Demonstrate necessary documentation and medicolegal implications of immunization.	K	KH	Y	Lecture/ SGD	Written/viva voce		
PE 19.15	Explain the term implied consent in Immunization services	K	K	Y	Small group discussion	Written/viva voce		
19.15.1	Explain the term implied consent in Immunization services.	K	K	Y	Small group discussion	Written/viva voce		
PE 19.16	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		
19.16.1	Enumerate newer vaccines (pneumococcal, rotavirus, JE typhoid, IPV, influenza& HPV vaccines).	K	K	N	Lecture/ SGD	Written/viva voce		
19.16.2	List the indications for newer vaccines such as pneumococcal, JE, typhoid, influenza& HPV vaccines	K	K	N	Lecture/ SGD	Written/viva voce		

Topic: Vaccine preventable Diseases-Tuberculosis		Number of competencies: (20)			Number of procedures that require certification: (03)			
PE 34.1	Discuss the epidemiology, clinical features, clinical types, complications of Tuberculosis in Children and Adolescents	K	KH	Y	Lecture/ SGD	Written/ viva voce	Micro	Resp Med
34.1.1	discuss the epidemiology of Tuberculosis in Children and Adolescents	K	KH	Y	Lecture/ SGD	Written/viva voce		
34.1.2	Describe the clinical features of Tuberculosis in Children and Adolescents	K	KH	Y	Lecture/ SGD	Written/viva voce		
34.1.3	Enumerate the clinical types of Tuberculosis in Children and Adolescents	K	KH	Y	Lecture/ SGD	Written/viva voce		
34.1.4	List the complications of Tuberculosis in Children and Adolescents	K	KH	Y	Lecture/ SGD	Written/viva voce		
PE 34.2	Discuss the various diagnostic tools for childhood tuberculosis	K	KH	Y	Lecture/ SGD	Written/ viva voce	Micro	Resp Med
34.2.1	Describe the various diagnostic tools for childhood tuberculosis	K	KH	Y	Lecture/ SGD	Written/viva voce		
PE 34.3	Discuss the various regimens for management of Tuberculosis as per National Guidelines	K	KH	Y	Lecture/ SGD	Written/ viva voce	Micro, Com Med, Pharm	Resp Med
34.3.1	Describe the various regimens for management of Tuberculosis as per National Guidelines	K	KH	Y	Lecture/ SGD	Written/viva voce		

PE 34.4	Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Program	K	KH	Y	Lec-ture/ SGD	Written/ viva voce		Micro, Com Med, Pharm	Resp Med
34.4.1	Describe the preventive strategies adopted under the National Tuberculosis Program	K	KH	Y	Lecture/ SGD	Written/viva voce			
34.4.2	List the objectives of the National Tuberculosis Program	K	KH	Y	Lecture/ SGD	Written/viva voce			
34.4.3	Discuss the outcome of the National Tuberculosis Program	K	KH	Y	Lecture/ SGD	Written/viva voce			
PE 34.5	Able to elicit, document and present history of contact with tuberculosis in every patient encounter	S	SH	Y	Bed-side, Skills lab	Skill Assess- ment			Resp Med
34.5.1	Elicit history of contact with tuberculosis in every patient encounter	S	SH	Y	Bed-side, Skills lab	Skill Assess- ment			
34.5.2	Document history of contact with tuberculosis in every patient encounter	S	SH	Y	Bed-side, Skills lab	Skill Assess- ment			
34.5.3	Present history of contact with tuberculosis in every patient encounter	S	SH	Y	Bed-side, Skills lab	Skill Assess- ment			
PE 34.6	Identify a BCG scar	S	P	Y	Bed-side, Skills lab	Skill Assess- ment	3	Micro	Resp Med

34.6.1	Identify a BCG scar in a child	S	P	Y	Bed-side, Skills lab	Skill Assess- ment	3		
PE 34.7	Interpret a Mantoux Test	S	P	Y	Bed- side	Skill Assess- ment	3	Micro	Resp Med
34.7.1	Read a Mantoux Test	S	P	Y	Bedside	Skill Assess- ment	3		
34.7.2	Interpret a Mantoux Test	S	P	Y	Bedside	Skill Assess- ment	3		
PE 34.8	Interpret a chest radiograph	S	SH	Y	Bed- side	Skill Assess- ment		Radiod	Resp Med
34.8.1	Identify abnormalities caused by tuberculosis in a chest radiograph	S	SH	Y	Bedside	Skill Assess- ment			
PE 34.9	Interpret blood tests in the context of laboratory evidence for tuberculosis	S	SH	N	Bed- side, SGD	Logbook		Micro	Resp Med
34.9.1	interpret blood tests in the context of laboratory evidence for tuberculosis	S	SH	N	Bed- side, SGD	Logbook			
PE 34.10	Discuss the various samples for demonstrating the organism e.g. Gastric Aspirate, Sputum, CSF, FNAC	K	KH	Y	Bed- side, SGD	Written/ viva voce		Micro	Resp Med
34.10.1	Describe the various samples for demonstrating the mycobacteria e.g. Gastric Aspirate, Sputum, CSF, FNAC	K	KH	Y	Bed- side, SGD	Written/viva voce			

PE 34.11	Perform AFB staining	S	P	Y	DOAP session	Logbook/ Journal	3	Micro	Resp Med
34.11.1	Perform AFB staining	S	P	Y	DOAP session	Logbook/ Journal	3		
PE 34.12	Enumerate the indications and discuss the limitations of methods of culturing M. Tuberculosis	K	KH	Y	SGD	Written/ viva voce		Micro	Resp Med
34.12.1	Enumerate the indications of culturing M. tuberculosis	K	KH	Y	SGD	Written/viva voce			
34.12.2	Enumerate the methods of culturing M. tuberculosis	K	KH	Y	SGD	Written/ viva			
34.12.3	Describe the limitations of different methods of culturing M. tuberculosis	K	KH	Y	SGD	Written/viva voce			
PE 34.13	Enumerate the newer diagnostic tools for Tuberculosis including BACTEC CBNAAT and their indications	K	K	N	Lec- ture/ SGD	Written/ viva voce			
34.13.1	Enumerate the newer diagnostic tools for Tuberculosis including BACTEC and CBNAAT	K	K	N	Lecture/ SGD	Written/viva voce			
34.13.2	recall the indications for using the newer diagnostic tools for Tuberculosis including BACTEC and CBNAAT	K	K	N	Lecture/ SGD	Written/viva voce			
Topic: Care of the Normal Newborn and High risk Newborn			Number of competencies: (20)			Number of procedures that require certification: (NIL)			
PE 20.7	Discuss the etiology, clinical features and management of Birth asphyxia	K	KH	Y	Lecture/ SGD	Written /Viva voce			
20.7.1	Define birth asphyxia as per NNF (National Neonatology Forum) and WHO, AAP guidelines.	K	K	Y	Lecture/ SGD	Written /Viva voce			

20.7.2	Enumerate the etiology of birth asphyxia based on antenatal, natal and postnatal factors.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.7.3	Describe the clinical features of birth asphyxia.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.7.4	List the complications of hypoxic ischemic encephalopathy.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.7.5	Describe the post resuscitation management of the asphyxiated neonate.	K	KH	Y	Lecture, SGD	Written /Viva voce			
PE 20.8	Discuss the etiology, clinical features and management of respiratory distress in Newborn including meconium aspiration and transient tachypnea of newborn.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.8.1	Define Respiratory Distress in a neonate (as per NNF guidelines).	K	K	Y	Lecture, SGD	Written /Viva voce			
20.8.2	Enumerate the common etiologies of respiratory distress based on time of onset and gestation.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.8.3	Enumerate the parameters of the Downes score for assessment of severity of respiratory distress.	K	K	Y	Lecture, SGD	Written /Viva voce			
20.8.4	Describe the clinical features and complications of Meconium Aspiration Syndrome (MAS).	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.8.5	Discuss the management of MAS.	K	K	Y	Lecture, SGD	Written /Viva voce			
20.8.6	Discuss the clinical features and management of Transient Tachypnea of Newborn.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.8.7	Describe the etiology and clinical features of Hyaline Membrane Disease.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.8.8	Discuss the management including prevention of HMD.	K	KH	Y	Lecture, SGD	Written /Viva voce			

PE 20.9	Discuss the etiology, clinical features and management of birth injuries.	K	KH	Y	Lecture, SGD	Written /Viva voce		
20.9.1	Define birth injury (as per National Vital Statistics Report).	K	K	Y	Lecture, SGD	Written /Viva voce		
20.9.2	Enumerate the common birth injuries in neonates	K	K	Y	Lecture, SGD	Written /Viva voce		
20.9.3	Discuss the etiology and risk factors of birth injuries	K	KH	Y	Lecture, SGD	Written /Viva voce		
20.9.4	Discuss the clinical features of common birth injuries like, cephalhematoma, subgaleal hemorrhage, brachial plexus and facial nerve injury, bone and soft tissue injuries and intra-abdominal injuries, fractures.	K	KH	Y	Lecture, SGD	Written /Viva voce		
20.9.5	Discuss the management including prevention of common birth injuries	K	KH	Y	Lecture, SGD	Written /Viva voce		
PE 20.10	Discuss the etiology, clinical features and management of hemorrhagic disease of newborn	K	KH	Y	Lecture, SGD	Written /Viva voce		
20.10.1	Enumerate the causes of hemorrhagic disease of newborn according to time of onset.	K	K	Y	Lecture, SGD	Written /Viva voce		
20.10.2	Discuss the role of vitamin K deficiency in hemorrhagic disease of newborn.	K	KH	Y	Lecture, SGD	Written /Viva voce		
20.10.3	Describe the clinical features of early, classical and late onset hemorrhagic disease of newborn.	K	KH	Y	Lecture, SGD	Written /Viva voce		
20.10.4	Outline the steps of management and prevention of hemorrhagic disease of newborn.	K	KH	Y	Lecture, SGD	Written /Viva voce		

PE 20.11	Discuss the clinical characteristics, complications and management of low birth weight (preterm and small for gestation).	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.11.1	Describe the clinical characteristics of preterm, small for gestation and low birth weight newborns.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.11.2	Enumerate the complications in the preterm, small for gestation and low birth weight newborns	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.11.3	Describe the management of the preterm, small for date and low birth weight newborns.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.11.4	Enumerate the criteria for discharge of low birth weight babies from hospital-based care.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.11.5	List the follow up advice for low birth weight newborns.	K	KH	Y	Lecture, SGD	Written /Viva voce			
PE 20.12	Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypothermia.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.12.1	Enumerate the modes of heat loss in a newborn.	K	K	Y	Lecture, SGD	Written /Viva voce			
20.12.2	Describe the mechanism of thermoregulation in the newborn.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.12.3	Classify hypothermia in newborns as per NNF criteria.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.12.4	Describe the clinical features of a newborn with cold stress, moderate hypothermia and severe hypothermia.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.12.5	Discuss the management of cold stress, moderate hypothermia and severe hypothermia.	K	KH	Y	Lecture, SGD	Written /Viva voce			

20.12.6	Outline the prevention of hypothermia in newborn by 'ten steps of the warm chain'.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.12.7	Explain the Kangaroo Mother Care for prevention of hypothermia in newborns.	K	KH	Y	Lecture, SGD	Written /Viva voce			
PE 20.13	Discuss the etiology, clinical features and management of Neonatal hypoglycemia.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.13.1	Define hypoglycemia in newborn.	K	K	Y	Lecture, SGD	Written /Viva voce			
20.13.2	Enumerate the etiology of hypoglycemia in the newborn.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.13.3	Enumerate the "at risk newborns" needing routine blood sugar monitoring for hypoglycemia.	K	K	Y	Lecture, SGD	Written /Viva voce			
20.13.4	Describe the clinical features of hypoglycemia in the newborn.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.13.5	Discuss the management of a newborn with asymptomatic and symptomatic hypoglycemia.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.13.6	Enumerate the measures for prevention of hypoglycemia in newborn.	K	KH	Y	Lecture, SGD	Written /Viva voce			
PE 20.14	Discuss the etiology, clinical features and management of Neonatal hypocalcemia.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.14.1	Define neonatal hypocalcemia.	K	K	Y	Lecture, SGD	Written /Viva voce			
20.14.2	Enumerate the risk factors for early and late onset hypocalcemia.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.14.3	Describe the clinical features of neonatal hypocalcemia.	K	KH	Y	Lecture, SGD	Written /Viva voce			

20.14.4	Outline the management of neonatal hypocalcemia.	K	KH	Y	Lecture, SGD	Written /Viva voce			
PE 20.15	Discuss the etiology, clinical features and management of neonatal seizures.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.15.1	Enumerate the clinical types of seizures in the new-born.	K	K	Y	Lecture, SGD	Written /Viva voce			
20.15.2	Enumerate the key differentiating features between seizures and jitteriness.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.15.3	Describe the common causes of neonatal seizures according to time of onset of seizure.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.15.4	Discuss the clinical features of the common causes of neonatal seizures.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.15.5	List the primary diagnostic tests indicated in neonatal seizures.	K	KH	Y	Lecture, SGD	Written /Viva voce			
20.15.6	Elaborate the step wise algorithmic approach for the management of neonatal seizures.	K	KH	Y	Lecture, SGD	Written /Viva voce			

Topic: Respiratory system			Number of competencies: (20)			Number of procedures that require certification: (NIL)			
PE 28.1	Discuss the etiopathogenesis, clinical features and management of Naso pharyngitis	K	KH	Y	Lecture, SGD	Written/ Viva voce		ENT	
28.1.1	Enumerate the etiological factors for Naso pharyngitis.	K	KH	Y	lecture, SGD	Written/ Viva voce			
28.1.2	Describe the clinical features of Nasopharyngitis	K	KH	Y	lecture, SGD	Written/ Viva voce			
28.1.3	Outline the management of Nasopharyngitis	K	KH	Y	lecture, SGD	Written/ Viva voce			

PE 28.2	Discuss the etiopathogenesis of Pharyngotonsillitis	K	KH	Y	Lecture, SGD	Written/ Viva voce		ENT	
28.2.1	Enumerate the etiological factors causing Pharyn–go-tonsillitis.	K	KH	Y	lecture, SGD	Written/ Vivavoce			
PE 28.3	Discuss the clinical features and management of Pharyngotonsillitis	K	KH	Y	Lecture, SGD	Written/ Viva voce		ENT	
28.3.1	Describe the clinical features of Pharyngotonsillitis.	K	KH	Y	lecture, SGD	Written/Viva voce			
28.3.2	Outline the management of acute Pharyngo-tonsillitis.	K	KH	Y	lecture, SGD	Written/ Viva voce			
PE28.4	Discuss the etiopathogenesis, clinical features and management of Acute Otitis Media (AOM)	K	KH	Y	Lecture, SGD	Written/ Viva voce		ENT	
28.4.1	List the common etiological agent causing Acute Otitis Media (AOM)	K	K	Y	lecture, SGD	Written/ Viva voce			
28.4.2	Discuss the pathogenesis of Acute Otitis Media (AOM),	K	KH	Y	lecture, SGD	Written/ Viva voce			
28.4.3	Enumerate the clinical features of Acute Otitis Media (AOM), recurrent AOM and OM with effusion	K	KH	Y	lecture, SGD	Written/ Viva voce			
28.4.4	Outline the management of Acute Otitis Media (AOM), recurrent AOM and OM with effusion	K	KH	Y	lecture, SGD	Written/ Viva voce			
PE28.5	Discuss the etiopathogenesis, clinical features and management of Epiglottitis	K	KH	Y	Lecture, SGD	Written/ Viva voce		ENT	
28.5.1	Describe the etiopathogenesis of Epiglottitis	K	KH	Y	Lecture, SGD	Written/ Viva voce			
28.5.2	Enumerate the clinical features of Epiglottitis	K	KH	Y	Lecture, SGD	Written/ Viva voce			

28.5.3	Outline the management of Epiglottitis including acute care	K	KH	Y	Lecture, SGD	Written/ Viva voce			
PE28.6	Discuss the etiopathogenesis, clinical features and management of Acute laryngotracheo-bronchitis	K	KH	Y	Lecture, Small group Discussion	Written/ Viva voce		ENT	
28.6.1	Describe the etiopathogenesis of Acute laryngo-tracheo- bronchitis (croup)	K	KH	Y	Lecture, SGD	Written/ Viva voce			
28.6.2	Describe the clinical features of Acute laryngo-tracheo- bronchitis	K	KH	Y	Lecture, SGD	Written/ Viva voce			
28.6.3	Outline the management of Acute laryngo-tracheo- bronchitis.	K	KH	Y	Lecture, SGD	Written/ Viva voce			
PE 28.7	Discuss the etiology, clinical features and management of Stridor in children	K	KH	Y	Lecture, SGD	Written/ Viva voce		ENT	
28.7.1	Enumerate the etiology of stridor in children	K	KH	Y	lecture, SGD	Written/ Viva voce			
28.7.2	Describe the clinical features of stridor in children	K	KH	Y	Lecture, SGD	Written/ Viva voce			
28.7.3	Discuss the differential diagnosis of stridor	S	SH	Y	Lecture, SGD	Written/ Viva voce			
28.7.4	Outline the management of stridor.	K	KH	Y	Lecture, SGD	Written/ Viva voce			
PE 28.8	Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children	K	KH	Y	Lecture, SGD	Written/ Viva voce		ENT	
28.8.1	List the objects commonly aspirated by children	K	KH	Y	Lecture, SGD	Written/ Viva voce			

28.8.2	Enumerate the clinical features of FB aspiration	K	KH	Y	Lecture, SGD	Written/ Viva voce			
28.8.3	Describe 'Heimlich maneuver' for a child and '5 back slaps and 5 chest thrust' for an infant	K	KH	Y	Lecture, SGD	Written/ Viva voce			
28.8.5	Outline the management of FB aspiration	K	KH	Y	Lecture, SGD	Written/ Viva voce			
PE 28.18	Describe the etiopathogenesis, diagnosis, clinical features, management and prevention of lower respiratory infections including bronchiolitis, wheeze associated LRTI Pneumonia and empyema	K	KH	Y	SGD, Lecture	Written, Viva voce			
28.18.1	Enumerate the common organisms causing LRTI	K	KH	Y	Lecture, SGD,	Written / Viva voce			
28.18.2	Discuss the pathogenesis of LRTI including bronchiolitis, WALRI, pneumonia and empyema.	K	KH	Y	Lecture, SGD,	Written/Viva voce			
28.18.3	Describe the clinical features of LRTI including bronchiolitis, WALRI, pneumonia and empyema	K	KH	Y	Lecture, SGD,	Written/Viva voce			
28.18.4	Discuss the diagnosis of LRTI including bronchiolitis, WALRI, pneumonia and empyema after taking relevant clinical history and examination.	K	KH	Y	Lecture, SGD,	Written/Viva voce			
28.18.5	Describe relevant investigations in a child with LRI	K	KH	Y	Lecture, SGD,	Written , Viva voce			
28.18.6	Discuss the treatment of LRTI including bronchiolitis, WALRI, pneumonia and empyema	K	KH	Y	Lecture, SGD,	Written , Viva voce			
28.18.7	Discuss the preventive strategies for LRTI	K	KH	Y	Lecture, SGD,	Viva voce, SAQ/MCQ			

Topic: Anemia and other Hemato-oncologic disorders in children		Number of competencies: (20)			Number of procedures that require certification: (NIL)				
PE 29.1	Discuss the etiopathogenesis, clinical features, classification and approach to a child with anemia	K	KH	Y	Lecture, SGD	Written, viva- voce		Path, Physio	
29.1.1	Define anemia as per WHO GUIDELINES	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.1.2	Enumerate the causes of anemia.	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.1.3	Describe the pathogenesis of anemia.	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.1.4	Enumerate clinical features of anemia	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.1.5	Classify Anemia according to red cell morphology	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.1.6	Describe the approach to a child with Anemia.	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.1.7	List the investigations in child with anemia.	K	KH	Y	Lecture, SGD	Written, viva- voce			
PE 29.2	Discuss the etiopathogenesis, clinical features and management of iron deficiency anemia.	K	KH	Y	Lecture, SGD	Written/ Viva- voce		Path, Physio	
29.2.1	Enumerate the causes of iron deficiency anemia in children	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.2.2	Describe the pathogenesis of iron deficiency anemia	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.2.3	Describe clinical features of iron deficiency anemia in children.	K	KH	Y	Lecture, SGD	Written, viva- voce			

29.2.4	List the investigations in a child with iron deficiency.	K	KH	Y	Lecture, SGD	Written, viva- voce		
29.2.5	Describe the treatment of iron deficiency anemia in children.	K	KH	Y	Lecture, SGD	Written, viva- voce		
PE 29.3	Discuss the etiopathogenesis, clinical features and management of Vitamin B-12, Folate deficiency anemia.	K	KH	Y	Lecture, SGD	Written/ Viva- voce	Path, Physio	
29.3.1	Enumerate the causes of vitamin B-12 and folic acid deficiency.	K	KH	Y	Lecture, SGD	Written, viva- voce		
29.3.2	Describe the pathogenesis of Vitamin B-12 deficiency.	K	KH	Y	Lecture, SGD	Written, viva- voce		
29.3.3	Describe the pathogenesis of folate deficiency.	K	KH	Y	Lecture, SGD	Written, viva- voce		
29.3.4	Describe the clinical features of vitamin B-12 and Folate deficiency.	K	KH	Y	Lecture, SGD	Written, viva- voce		
29.3.5	Enumerate the investigations for a child of Vitamin B-12 and Folate deficiency.	K	KH	Y	Lecture, SGD	Written, viva- voce		
29.3.6	Describe the treatment for a child suffering from Vitamin B-12 and Folic acid deficiency.	K	KH	Y	Lecture, SGD	Written, viva- voce		
PE 29.4	Discuss the etiopathogenesis, clinical features and management of Hemolytic anemia, Thalassemia Major, Sickle cell anemia, Hereditary spherocytosis, Auto-immune hemolytic anemia and hemolytic uremic syndrome.	K	KH	Y	Lecture, SGD	Written, viva- voce	Path, Physio	

29.4.1	Define Hemolytic Anemia.	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.4.2	Enumerate the causes of hemolytic anemia in children.	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.4.3	Describe the pathogenesis of different types of hemolytic anemia.	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.4.4	Describe the clinical features of hemolytic anemia, Thalassemia Major, Sickle cell anemia, Hereditary spherocytosis, Auto-immune hemolytic anemia and hemolytic uremic syndrome	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.4.5	List the investigations for diagnosis of hemolytic anemia.	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.4.6	Differentiate various types of hemolytic anemia based on clinical features and investigations.	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.4.7	Describe treatment of hemolytic anemia Thalassemia Major, Sickle cell anemia, Hereditary spherocytosis, Auto-immune hemolytic anemia and hemolytic uremic syndrome.	K	KH	Y	Lecture, SGD	Written, viva- voce			
29.4.8	Describe the role of chelation therapy and recall the drugs, dosages and side-effects of the drugs.	K	KH	Y	Lecture, SGD	Written, viva- voce			
PE 29.5	Discuss the National Anemia Control Program.	K	KH	Y	Lecture, SGD	Written, viva- voce		Com Med	
29.5.1	Describe National Anemia Control Program.	K	KH	Y	Lecture, SGD	Written, viva- voce			

PE 29.16	Discuss the indications for Hemoglobin electrophoresis and interpret the report.	K	K	N	Lecture, SGD	Written / Viva- voce		Bio-chemistry	
29.16.1	Enumerate the indications for Hemoglobin electrophoresis	K	K	N	Lecture, SGD	Written/ Viva- voce			
29.16.2	interpret the report of Hemoglobin electrophoresis	K	K	N	Lecture, SGD	Written/ Viva- voce			
PE 30.8	Define epilepsy. Discuss the pathogenesis, clinical types, presentation and management of Epilepsy in children	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.8.1	Define Epilepsy.	K	K	Y	Lecture, SGD	Written/ Viva voce			
30.8.2	Describe the pathogenesis of Epilepsy.	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.8.3	Classify clinical types of Epilepsy.	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.8.4	Describe the various presentations of Epilepsy.	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.8.5	Enumerate and Describe the investigations required to diagnose Epilepsy.	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.8.6	Outline the medical and surgical management of Epilepsy	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.8.7	Enumerate common Antiepileptic drugs and the types of Epilepsy in which they are indicated.	K	KH	Y	Lecture, SGD	Written/ Viva voce			

30.8.8	Enumerate the side effects of commonly used Antiepileptic drugs.	K	K	Y	Lecture, SGD	Written/ Viva voce			
PE 30.9	Define Status Epilepticus. Discuss the clinical presentation and management	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.9.1	Define Status epilepticus.	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.9.2	Describe the clinical presentation of status epilepticus	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.9.4	Enumerate investigations required for diagnosis of status epilepticus	K	KH	Y	Lecture, SGD	Written/ Viva			
30.9.5	Describe management of status epilepticus in a step wise manner based on the standard algorithm of management of status epilepticus of the PICU	K	KH	Y	Lecture, SGD	Written/ Viva voce			
PE 30.10	Discuss the etiopathogenesis, clinical features and management of Mental retardation in children	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.10.1	Define Mental Retardation (Intellectual disability)	K	K	Y	Lecture, SGD	Written/ Viva voce			
30.10.2	Enumerate the causes of Mental Retardation (Intellectual disability)	K	K	Y	Lecture, SGD	Written/ Viva voce			
30.10.3	Describe the pathogenesis of Mental Retardation (Intellectual disability)	K	KH	Y	Lecture, SGD	Written/ Viva voce			
30.10.4	Classify Mental Retardation (Intellectual disability).	K	KH	Y	Lecture, SGD	Written/ Viva voce			

30.10.5	Enumerate and Describe clinical features of Mental Retardation (Intellectual disability) including dysmorphic features.	K	KH	Y	Lecture, SGD	Written/ Viva voce		
30.10.6	Describe the investigations for diagnosis of Mental Retardation (Intellectual disability).	K	KH	Y	Lecture, SGD	Written/ Viva voce		
30.10.7	Describe the investigations (including genetic tests) required for identifying the etiology of Mental Retardation (Intellectual disability).	K	KH	Y	Lecture, SGD	Written/ Viva voce		
30.10.8	Describe the multidisciplinary approach to management of Mental Retardation (Intellectual disability).	K	KH	Y	Lecture, SGD	Written/ Viva voce		
30.10.9	Describe the treatment of preventable and treatable causes of Mental Retardation (Intellectual disability).	K	KH	Y	Lecture, SGD	Written/ Viva voce		

Topic: Chromosomal Abnormalities		Number of competencies: (13)			Number of procedures that require certification: (NIL)			
PE 32.1	Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Down Syndrome	K	KH	Y	Lecture, Small group discussion	Written		Human Anat
32.1.1	Describe the genetic basis of Down syndrome	K	KH	Y	Lecture/ SGD	MCQ/SAQ, / Viva voce		Anat, Bio-chemistry
32.1.2	Enumerate the risk factors for Down syndrome	K	KH	Y	Lecture/ SGD	MCQ/SAQ, / Viva voce		OBG

32.1.3	Enumerate the complications of Down syndrome	K	KH	Y	Lecture/ SGD	MCQ/SAQ, / Viva voce		
32.1.4	Describe the prenatal diagnosis of Down syndrome	K	KH	Y	Lecture/ SGD	MCQ/SAQ, / Viva voce		
32.1.5	Describe the management of Down syndrome	K	KH	Y	Lecture/ SGD	MCQ/SAQ, / Viva voce		
32.1.6	Describe the genetic counseling for Down syndrome	K	KH	Y	Lecture/ SGD	MCQ/SAQ, / Viva voce		
PE 32.4	Discuss the referral criteria and Multidisciplinary approach to management	K	KH	Y	Lecture, SGD	Written/ Viva voce		
32.4.1	Enumerate the referral criteria for Down syndrome.	K	KH	Y	SGD	SAQ/ Viva	Anat-Bio-chemistry	Med
32.4.2	Describe a multidisciplinary approach to management of a child with Down syndrome	K	KH	Y	Lecture/ SGD	MCQ/SAQ		

ORTHOPEDICS

PREAMBLE

As per GMER 2019, the various competencies that need to be addressed by the department of Orthopaedics as given on page 79 are

Competencies: The student must demonstrate:

1. Ability to recognize and assess bone injuries, dislocation and poly-trauma and provide firstcontact care prior to appropriate referral,
2. Knowledge of the medico-legal aspects of trauma,
3. Ability to recognize and manage common infections of bone and joints in the primary caresetting,
4. Recognize common congenital, metabolic, neoplastic, degenerative and inflammatory bonediseases and refer appropriately,
5. Ability to perform simple Orthopaedic techniques as applicable to a primary care setting,
6. Ability to recommend rehabilitative services for common Orthopaedic problems across allages.
7. Keeping the above competencies in mind there will be continuation of Orthopaedics learning in Phase 3 Part 1 MBBS which was introduced in Phase 2 MBBS.

TABLE OF CONTENTS

SI No	Content
1	Goal and Objectives
2	Terms and Teaching Guidelines
3	Syllabus at a glance; Teaching hours
4	Competencies, Specific Learning Objectives, Teaching learning and Assessment methods
5	Assessment
6	Annexures
	Annexure 1- Recommended Books
	Annexure 2- Model question paper
	Annexure 3- Log Book format

1. GOAL AND OBJECTIVES

Syllabus in Orthopaedics for Third Professional MBBS Part 1 (13 months)

GOAL:

The broad goal of the teaching of Third Professional MBBS Part 1 undergraduate students in Orthopaedics is to introduce Clinical Orthopaedics to them so that students are oriented towards clinical Orthopaedics and go through a smooth transition towards clinical side

OBJECTIVES:

A) KNOWLEDGE

At the end of the Third Professional MBBS Part 1, undergraduate students in Orthopaedics should be able to describe a few diseases and their work-up & treatment pertaining to a few selected topics (see below) in Orthopaedics (15 hours for Lectures)

B) SKILLS

At the end of 3rd professional MBBS Part 1, the student should be able to: -

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

C) ATTITUDE (AFFECTIVE)

Communicate effectively with peers and teachers in various teaching, learning activities in a manner that encourages participation and shared decision-making.

Demonstrate ability to behave &communicate with sensitivity and due respect towards patients and their relatives during history taking &physical examination

D) INTEGRATION

At the end of 3rd year training, he/she should be able to integrate the causes of disease and relationship of different etiologi-

cal factors (social, economic and environmental) and that contribute to the natural history of diseases most prevalent in India and describe a few diseases and their work-up & treatment pertaining to a few selected topics (see below) in Orthopaedics and perform a physical examination that is contextual

OUTCOME

At the end of 3rd professional MBBS, students would be oriented towards clinical Orthopaedics, patients& diseases and would have a smooth transition towards clinical side

The student must demonstrate:

1. Knowledge to recognize and assess bone injuries, dislocation and poly-trauma
2. Knowledge of the medico-legal aspects of trauma
3. Knowledge to recognize and manage common infections of bone and joints in the primary caresetting
4. Skill acquisition in splinting of common upper limb and lower limb injuries
5. To Analyze and identify common pathologies in X-ray
6. Clinical skill in evaluating joint pathologies

2. TERMS AND TEACHING GUIDELINES

1. LECTURE

Is a teaching learning method which includes traditional and interactive sessions involving a large group.
15 hours in total for Orthopaedics

2. SMALL GROUP DISCUSSION(BEDSIDE CLINICS/OPD Teaching as applied to CLINICAL POSTINGS in ORTHOPAEDICS)

Is an instructional method involving small groups of students in an appropriate learning context (ward/oppd teaching as applied to CLINICAL POSTINGS in Orthopaedics)

The clinical postings in the 3rd professional will be 18 hours per week X 4 weeks (3 hrs. per day from Monday to Saturday as per GMER 2019, page.no.69) covering History taking, Symptomatology, GPE & Local examination pertaining to all major joint disorders

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

Provides learners with experience in longitudinal patient care being part of the health care team with Hands-on care of patients in outpatient and inpatient setting. The second clinical posting in third professional shall orient learners to the patient,their roles and the specialty (as per GMER 2019, 9.5.1-2, page.no.74).

4. CORE

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

5. NON – CORE

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

3. SYLLABUS AT A GLANCE:

A. Number of teaching hours:

Lecture 15hrs(1hr X 15)

Tutorials 20hrs(2hr X 10)

Self-directed learning 5hrs

Clinical postings 72hrs(18 hours per week X 4 weeks - 3hrs per day from Monday to Saturday)

Total 112hrs

B. Topics

Lecture Classes:General Orthopaedics, Fractures and Complications, Trauma and Polytrauma, Peripheral nerve injuries

Clinical Postings:Bedside Clinical Teaching, ward rounds, OPD, Skills lab; DOAP) covering History taking, Symptomatology, GPE & Regional and local examination of major joints of upper limb, Lower limb and Swelling of Bone origin, Musculoskeletal infection and Degenerative Disorders.

AETCOM(integration):01

Procedures and skills: 01,Compression Bandage (I)

Integrated: 05 (Forensic Medicine and Toxicology)

MINIMUM TEACHING HOURS

Sl.no	Topic	Number of competencies	Lecture (Hrs)
1.	General Orthopaedics / Anatomy (Integrated)	2	2
2	Skeletal trauma / Poly Trauma	4	4
3	Fractures	9	9
	Total	15	15

Sl.no	Topic	Number of competencies	Tutorials / Seminars / Integrated Teaching (Hrs)
1	Peripheral nerve injuries	1	3
2	Skeletal trauma / Poly Trauma	8	12
3	Integrated (Forensic Medicine and Toxicology)	6	3
4	Integrated (Applied Anatomy in Orthopaedics)	4	2
	Total	19	20

Sl.no	Topic	Number of Competencies	SDL (Hrs)
1	Skeletal trauma / Procedural Skills	2	3
2	Counselling Skills	1	2
	Total	3	5

CLINICAL POSTINGS – 18 Hours per week (3Hours per day) (Mon-Fri) X 4 week

Sl.no	Topic	No of hours
1	Introduction to Orthopaedics	3
2	History Taking and examination	3
3	General and local examination	3
4	Assessment of Muscle Strength and ROM	3
5	Major joint examination a. Hip b. Knee c. Ankle d. Shoulder e. Elbow f. Wrist	12 12 6 6 6 6
6	Examination of Peripheral Nerve Injuries – Upper Limb	12
	Total	72

INTERNAL ASSESSMENT

THEORY INTERNAL ASSESSMENT: will be conducted along with surgery and allied subjects

PRACTICAL INTERNAL ASSESSMENT: will be conducted at the end of clinical postings

4. Competencies, specific learning objectives, teaching learning and assessment methods

Number	COMPETENCY& SLOS The student should be able to:	Do-main-K/S/A/C	LevelK/KH/SH/P	Core (Y/N)	Suggested Teaching Learning-method	Sug-gest-e-dAssess-ment-method	Num-ber-re-quired to certify P	Verti-calIn-tegra-tion	Hor-izon-talIII Inte-gration
Topic: Skeletal Trauma, Polytrauma									
General Orthopaedics / Anatomy Integrated									
Number of competences - (2) No of Procedure that Requires Certification – (Nil)									
AN2.4	Describe various types of cartilage with its structure & distribution in body	K	KH	Y	Lecture	Written/Vivavoce		Orthopedics	
AN2.5	Describe various joints with sub-type sand examples	K	KH	Y	Lecture	Written/Vivavoce		Orthopedics	
Topic: Skeletal Trauma, Poly- trauma	Number of competencies: (04)				Number of procedures that require re-certification: (NIL)				

OR1.1	<p>Describe and discuss the Principles of pre-hospital care and Casualty management of a trauma victim including principles of triage</p> <p>1.1.1 Describe the pre-hospital care of a trauma patient</p> <p>1.1.2 Discuss the principles of pre-hospital care of trauma victim</p> <p>1.1.3 Protocol for casualty management of a trauma victim</p> <p>1.1.4 Principles of triage in field</p> <p>1.1.5 Principles of triage in tertiary care hospital</p>	K	KH	Y	Lecture with video,Small-group discussion	Written/Vivavoce/OSCE/Simulation			General Surgery,Anesthesiology
OR1.2	<p>Describe and discuss the etiopathogenesis,- clinical features, investigations, and principles of management of shock</p> <p>1.2.1 Describe and discuss the types of shock</p> <p>1.2.2 Describe and discuss the etiopathogeneses of shock</p> <p>1.2.3 Describe and discuss the clinical features of shock</p> <p>1.2.4 Enumerate and discuss the various investigations needed in shock victim</p> <p>1.2.5 Discuss the principles of management of shock</p>	K	KH	Y	Lecture	Written/Vivavoce/OSCE/Simulation			General-Surgery

OR1.3	Describe and discuss the etiopathogeneses, clinical features, investigations, and principles of management of soft tissue injuries	K	KH	Y	Lec-ture,Small-groupdiscus-sion	Written/OSCE			General-Surgery
	1.3.1 describe and discuss the etiopathogeneses of soft tissue injuries								
	1.3.2 discuss the type and classification of soft tissue injuries								
	1.3.3 describe and discuss the clinical features of soft tissue injury								
	1.3.4 enumerate and discuss the various investigations in soft tissue injury patients								
	1.3.5 discuss the principles of management of soft tissue injuries								
OR1.4	Describe and discuss the Principles of management of soft tissue injuries	K	KH	Y	Lec-ture,Small-groupdiscus-sion	Written/Assess-ment/Vi-vavoce			General-Surgery
	1.4.1 Discuss the type and classification of soft tissue injuries								
	1.4.2 Enumerate and discuss the various investigations in soft tissue injury patients								
	1.4.3 Describe and discuss the pre hospital care in soft tissue injury patients								
	1.4.4 Discuss the principles of management of soft tissue injuries								
	1.4.5 Discuss the complications involved in the management of soft tissue injuries								

Topic: Fractures Number of competencies:(06) Number of procedures that require certification:(NIL)										
Number	COMPETENCY / SLOS The student should be able to:	Do-main-K/S/A/C	Level K/ KH/ SH/P	Core (Y/ N)	Suggested Teaching-Learning-method	Sug-ges-te-dAs-sess-ment-method	Num-ber-re-quired to cer-tify P	Verti-calIn-tegra-tion	Hor-izon-talIn-tegra-tion	
OR2.1	Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fracture of clavicle	K	K/SH	Y	Lec-ture,Small-groupdis-cussion, Bed sideclinic	Written/Vivav-oce/OSCE		HumanAnatomy		
	2.1.1 Describe the mechanisms of injury of clavicle fracture									
	2.1.2 Discuss the clinical features of clavicle fracture									
	2.1.3 Elaborate the investigations of fracture of clavicle									
	2.1.4 Demonstrate the plan of management of clavicle fracture.									
OR2.2	Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fractures of proximal humerus	K	K/KH	Y	Lec-ture,Small-groupdis-cussion, Bed sideclinic	Written/Vivav-oce/OSCE		HumanAnatomy		
	2.2.1 Describe the mechanisms of injury of proximal humerus fracture									
	2.2.2 Discuss the clinical features of proximal humerus fracture									
	2.2.3 Elaborate the investigations of fracture of proximal humerus									
	2.2.4 Demonstrate the plan of management of proximal humerus fracture.									

OR2.3	Select, prescribe and communicate appropriate medications for relief of joint pain	K	KH	Y	Lec-ture,Small-groupdis-cussion, Bed sideclinic	Written/Vivav-oce/OSCE	HumanAnatomy	
	2.3.1 Describe the causes of joint pain.							
	2.3.2 Discuss the classification of joint pain.							
	2.3.3 Describe the appropriate medications for joint pain.							
	2.3.4 Demonstrate and communicate the appropriate medications for a patient of joint pain							
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	Lec-ture,Small-groupdis-cussion, Bed sideclinic	Written/Vivav-oce/OSCE	HumanAnatomy	
	2.4.1 Describe the mechanism of injury of fracture shaft of humerus							
	2.4.2 Discuss the clinical features of fracture shaft of humerus							
	2.4.3 Discuss the investigations of fracture shaft of humerus							
	2.4.4 Demonstrate the principles of management of fracture shaft of humerus.							
	2.4.5 Describe the mechanism of injury of intercondylar fracture of humerus.							
	2.4.6 Discuss the clinical features of intercondylar fracture of humerus.							
	2.4.7 Discuss the investigations of intercondylar fracture of humerus							

	2.4.8 Demonstrate the principles of management of intercondylar fracture of humerus.									
	2.4.9 Discuss the complications of fracture shaft of humerus.									
OR2.5	Describe and discuss the etiopathogeneses, clinical features, mechanism of injury, investigation & principles of management of fractures of both bones forearm and Galeazzi and Monteggia injury	K	K/KH	Y	Lec-ture,Small-groupdis-cussion, Bedsideclinic	Written/Vivav-oce/OSCE	HumanAnatomy			
	2.5.1 Describe the etiopathogeneses and mechanism of injury of both bones fracture of forearm									
	2.5.2 Discuss the clinical features of both bones fracture of forearm									
	2.5.3 Discuss the mechanism of injury of both bones fracture of forearm.									
	2.5.4 Demonstrate the principles of management of fracture both bones of the forearm.									
	2.5.5 Describe the etiopathogeneses and mechanism of injury of Galeazzi fracture.									
	2.5.6 Discuss the clinical features of Galeazzi fracture.									
	2.5.7 Discuss the investigations of injury of Galeazzi fracture.									
	2.5.8 Demonstrate the principles of management of Galeazzi fracture									

	<p>2.5.9 Describe the etiopathogeneses and mechanism of injury of monteggia fracture.</p> <p>2.5.10 Discuss the clinical features of Monteggia fracture.</p> <p>2.5.11 Discuss the investigations of injury of Monteggia fracture.</p> <p>2.5.12 Demonstrate the principles of management of Monteggia fracture.</p>							
OR2.6	<p>Describe and discuss the etiopathogeneses, mechanism of injury, clinical features, investigations and principles of management of fractures of distal radius</p> <p>2.6.1 Describe the mechanism of injury of distal radius fracture</p> <p>2.6.2 Discuss the clinical features of distal radius fracture</p> <p>2.6.3 Discuss the investigations of distal radius fracture</p> <p>2.6.4 Demonstrate the principles of management of distal radius fracture.</p> <p>2.6.5 Discuss the complications of distal radius fracture.</p>	K/ S	KH / SH	Y	Lec-ture,Small-groupdis-cussion, Bedsideclinic	Written/Vivav-oce/OSCE	HumanAnat-omy	

OR2.15	<p>Plan and interpret the investigations to diagnose complications of fractures like malunion, non-union, infection, compartmental syndrome</p>	K/S	SH	Y	<p>Lecture, Small-group discussion, Bedside clinic</p>	<p>Written/Viva- oce/ OSCE</p>		<p>HumanAnat- omy</p>	
	<p>Describe the etiopathogeneses and mechanism of injury of both bones fracture of forearm</p> <p>Discuss the clinical features of both bones fracture of forearm</p> <p>Discuss the mechanism of injury of both bones fracture of forearm.</p> <p>Demonstrate the principles of management of fracture both bones of the forearm.</p> <p>Describe the etiopathogeneses and mechanism of injury of Galeazzi fracture.</p> <p>Discuss the clinical features of Galeazzi fracture.</p> <p>Discuss the investigations of injury of Galeazzi fracture.</p> <p>Demonstrate the principles of management of Galeazzi fracture</p> <p>Describe the etiopathogeneses and mechanism of injury of monteggia fracture.</p> <p>Discuss the clinical features of Monteggia fracture.</p> <p>Discuss the investigations of injury of Monteggia fracture.</p> <p>2.5. 12 Demonstrate the principles of management of Monteggia fracture.</p>								

OR2.16	<p>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</p> <p>Describe the mechanism of injury of distal radius fracture</p> <p>Discuss the clinical features of distal radius fracture</p> <p>Discuss the investigations of distal radius fracture</p> <p>Demonstrate the principles of management of distal radius fracture.</p> <p>Discuss the complications of distal radius fracture.</p>	K	K/KH	Y	Lecture, Small-group discussion, Bedside clinic	Written/Vivavoice/OSCE		Human Anatomy
AN8.6	<p>Describe scaphoid fracture and explain the anatomical basis of avascular necrosis</p> <p>Define Malunion and Nonunion</p> <p>Describe the factors responsible for Malunion and Nonunion</p> <p>Discuss the biochemical and radiological investigations for Nonunion.</p> <p>Define Compartment syndrome</p> <p>Discuss the causes of Compartment syndrome</p> <p>Describe the clinical features and investigation for diagnosing compartment syndrome</p>	K	KH	N	DOAPsession	Vivavoice		Orthopedics

Topic:Peripheral nerve injuries est that require recertification: (NIL)		Number of competencies: (01)				Number of procedures:			
OR11.1	Describe and discuss the etiopathogeneses, clinical features, investigations and principles of management of peripheral nerve injuries in diseases like Wrist drop, clawhand, palsies of radial, Ulnar, Median Nerves	K	K/ KH	Y	Lecture, Small-group discussion, case discussion	Written/ Vivav- oce/ OSCE		Human-Anatomy	General- Medicine, - General- surgery
	3.1.1 Describe and discuss different types of peripheral nerve injuries 3.1.2 Describe and discuss the etiopatho-geneses of peripheral nerve injuries 3.1.3 Describe and discuss the clinical features of peripheral nerve injuries 3.1.4 Enumerate and discuss the various investigations required in peripheral nerve injuries 3.1.5 Discuss the principles of management of peripheral nerve injuries 3.1.6 Describe and discuss the etiopatho-geneses of wrist drop 3.1.7 Describe and discuss the clinical features of wrist drop 3.1.8 Discuss the principles of management of wrist drop 3.1.9 Describe and discuss the etiopatho-geneses of claw hand 3.1.10 Describe and discuss the clinical features of claw hand 3.1.11 Discuss the principles of management of claw hand								

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	Lec- ture,Small- groupdis- cussion	Written/ Vivavoce		Forensic medicine, Orthopae- dics	
FM3.8	Mechanical injuries and wounds: Describe and discuss different types of-weapons including dangerous weapons and their examination.	K	K/KH	Y	Lec- ture,Small- groupdis- cussion	Written/ Vivavoce		General Surgery, Ortho- paedics	
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	Lec- ture,Small- groupdis- cussion	Written/ Vivavoce		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- discus- sion, Bed- side clinic- DOAPses- sion	Written/ Vivav- oce/ OSCE		General Surgery, Orthopaedics	
FM3.11	RegionalInjuries: Describe and discuss regional injuries to head (Scalp wounds, fractures skull, intracranial hemorrhages, coup and contre-coup injuries), neck, chest, abdomen, limbs, genital organs, spinal cord and skeleton	K	K/KH	Y	Lec- ture,Small- groupdis- cussion, Bed side- clinic or au- topsy, DO- APsession	Written/ Vivav- oce/ 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, DO-AP session	Written/Viva- oce/OSCE/ OSPE		General Sur- gery, Ortho- paedics	
--------	--	---	------	---	--	------------------------------------	--	---	--

ProceduralSkills Numberofcompetencies:(01)		Numberofproceduresthatrequirecertification:(NIL)						
OR13.1	<p>Participate in a team for procedures in inpatients and demonstrating the ability to perform on mannequins / simulated patients in the following:</p> <p>i. Above elbow plaster</p> <p>ii. Strapping for shoulder and clavicle trauma</p> <p>Describe the plastering technique for upper limb injuries</p> <p>Demonstrate above elbow plastering technique</p> <p>Discuss the importance and uses of splinting of long bone fractures</p> <p>Demonstrate the technique of splinting for long bone fractures</p> <p>Demonstrate the technique of strapping for shoulder and clavicle fractures.</p>	S/A	KH / SH	Y	Casediscussion, Video-assisted Lecture, Small group discussion, Teaching, Skill labsessions	OSCE-with-Simulation-base-dassessment		

Topic:CounsellingSkills Numberofcompetencies:(01)		Numberofproceduresthatrequirecertification:(NIL)							
Number	COMPETENCY Thestudentshouldbeableto:	Do-main-K/S/A/C	Lev-el K/KH/SH/P	Core (Y/N)	Suggested Teaching-Learning-method	Sug-gestedAssess-ment-method	Num-berre-quired tocer-tify P	Verti-calIn-tegra-tion	Hor-izon-talInte-gration
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	K/S/A/C	KH / SH	Y	Casediscussion, Video-assisted lecture, Smallgroup discussion, Teaching, Skills labsessions	OSCE-with-Simulation-base-dassess-ment			AETCOM

CLINICAL POSTINGS Bedside Clinical Teaching (Bedside clinics, ward rounds &OPD, Skillslab; DOAP) covering History taking, Symptomatology, GPE & Systemic examination pertaining to all major systems &disorders plus Self-directed Learning towards History taking & Physical Examination (in the form of independent case taking).

As per UG Curriculum document Vol 1, page.no.18: 3.1.5-8: At the end of 2nd professional MBBS, the student should be able to: -

- 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

Number	COMPETENCY/SLO The student should be able to:	Do- main- K/S/ A/C	Level K/ KH/ SH/P	Core (Y/ N)	Suggested Teaching- Learning- method	Sug- gested Assess- ment- meth- od	Num- ber re- quired to cer- tify P	Verti- cal In- tegra- tion	Horizon- tal In- tegra- tion
Clinical Postings									
1	Introduction to Orthopedics	K/S	KH	Y	Bedside- clinic, DO- AP session	Skill as- sessment			
	Various terms of Orthopaedics, Clinical Cases, clinical Presentation, and Clinical assessment Methods will be detailed								
2	History taking	K/S	KH	Y	Bedside- clinic, DO- AP session	Skill as- sessment			
	To elicit, document and present History of Various Orthopaedic Symptoms under the heading of Pain, Swelling, Disability, inability, Deformity, Limb length Discrepancy,								
3	General and Local examination	K/S	K/KH/ SH	Y	Bedside- clinic, DO- AP session	Skill as- sessment			
	Perform general Physical examination and Inspect, palpate, auscultate, Measurements of Major Joints, Perform Special Tests								
4	Assessment of Muscle strength and ROM	K/S	KH/SH	Y	Bedside- clinic, DO- AP session	Skill as- sessment			
	To evaluate and elicit Neurological Assessment of Spine and peripheral nerves of Upper and Lower Limbs using MRC Grading								

IM7.13	<p>Perform a systematic examination of all joints, muscle and skin that will establish the diagnosis and severity of disease</p> <ul style="list-style-type: none"> a. Hip b. Knee c. Ankle d. Shoulder e. Elbow f. Wrist 	K/S	KH/SH	Y	Bedside-clinic, DO-AP session	Skills-assessment			
	<p>To elicit, document and present History of Various Orthopaedic Symptoms under the heading of Pain, Swelling, Disability, inability, Deformity, Limb length Discrepancy, Perform general Physical examination and Inspect, palpate, auscultate, Measurements of Major Joints, Perform Special Tests Distal neurovascular evaluation</p>								

5. ASSESSMENT:

- a) SUMMATIVE ASSESSMENT- NIL; No summative assessment in Orthopaedics / Surgery in this phase
- b) INTERNAL ASSESSMENT As per GMER 2019, page.no.82-83, 11.1.1(b):

18. There will be 2 theory internal assessment examinations in Orthopaedics along with Gen surgery and allied subjects.

19. There will be one clinical internal assessment at the end of clinical postings.

Internal assessment shall be based on day-to-day assessment. It shall relate to different ways in which learners participate in learning process. Day to day records and log book will be given importance in internal assessment.

As per GMER 2019, 9.5.3, page.no.75:

- (a) A designated faculty member in each unit will coordinate and facilitate the activities of the learner, monitor progress, provide feedback and review the log book/ caserecord.
- (b) The log book/ case record must include the written case record prepared by the learner

Annexure I -Recommended books:

RECOMMENDED BOOKS (Recent editions):

TEXT- BOOKS RECOMMENDED

1. Apley's System of Orthopaedics and Fractures (Tenth Edition)
2. Miller's Review in Orthopaedics (Seventh Edition)
3. Essential ORTHOPAEDICS – Maheshwari (Sixth Edition)
4. Adam's Outline of Orthopaedics, 14th edition: David L.Hamblen, A.Hamish, R.W.Simon; Elsevier publication
5. Adam's Outline of fractures, 12th edition: David L.Hamblen, A.Hamish, R.W.Simon; Elsevier publication
6. A Manual of clinical Surgery – S. Das (Thirteen Edition)
7. McRae's Clinical Orthopaedic Examination (Fourth Edition)

REFERENCE BOOKS:

1. Campbell's Operative Orthopaedics (Fourteenth Edition)
2. Rockwood and Green's Fractures in Adults and Children (Ninth Edition)

Annexure-III

LOG BOOK FORMAT

PHASE II MBBS -DEPARTMENT OF ORTHOPAEDICS

NAME OF THE CANDIDATE:

UNIVERSITY REGISTER NUMBER:

ACADEMIC YEAR:

BONAFIDE CERTIFICATE

This is to certify that this log book is the Bonafede record of Mr./Ms..... whose particulars along is given

above. His/ Her log of competencies acquired, are as noted in the entries in this log book in the subject of Orthopaedics as per the Competency

Based Undergraduate Medical Education Curriculum, Graduate Medical Regulation 2019, during the period to.....

She / He will not be eligible / eligible to appear for the summative (University) assessment as on the date given below.

Signature with date

HOD of Orthopaedics: Signature with date

BASIC PROFORMA OF THE STUDENT

PARTICULARS OF THE STUDENT :

NAME OF THE STUDENT :

DATE OF BIRTH :

FATHER'S NAME :

MOTHER'S NAME :

ADDRESS :

CONTACT NUMBER :

EMAIL ID :

Signature :

SUGGESTED GUIDELINES FOR LOG BOOK:

GENERAL INFORMATION:

- 1) The logbook is a record of the academic / co-curricular activities of the designated student, who would be responsible for maintaining his/her logbook.
- 2) The student is responsible for getting the entries in the logbook verified by the Faculty In-charge regularly.
- 3) Entries in the logbook will reflect the activities undertaken in the department & have to be scrutinized by the Head of the concerned department.
- 4) The logbook is a record of various activities by the student like:
 - A. Overall participation & performance
 - B. Attendance
 - C. Participation in sessions
 - D. Record of completion of pre-determined activities.
 - E. Acquisition of selected competencies
- 5) The logbook is the record of work done by the candidate in that department / specialty and should be verified by the college before submitting the application of the students for the University examination.

SUMMARY OF ATTENDANCE

Phase	Percentage of classes Attended		Eligible for University examination (Yes / No)	Signature of student	Signature of teacher
	Theo- ry	Practical			
Attendance at the end of MBBS Phase II			NA		

SUMMARY OF INTERNAL ASSESSMENT (IA)

Sl. No.	Internal Assessment	Date of Assessment	Total marks		Marks scored		Signature of student	Signature of teacher
			Theory	Practical	Theory	Practical		
First								
Second								
Remedial								

NON-CERTIFIABLE (SHOWS HOW) ACTIVITIES

# Competency	Name of Activity	Date completed	Rating Below Expectations (C) Meets Expectations (B) Exceeds Expectations (A)	Decision offac- ulty Completed Repeat Remedial	Initial of fac- ulty and date	Feedback Received Initial of learner

Format for documentation and feedback for Self-Directed Learning

Sl. no	Date	Topic of SDL	Feedback	Signature of faculty/mentor
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				

Summary of formative assessment for the entire year

Type of Assessment	Total marks	Marks scored	Signature of student	Signature of teacher with date
SGD/Bedside Clinics	10			
Professionalism	10			
TOTAL	20			

Rubric for assessing the professionalism

Phase	Areas assessed						Signature of student	Signature of teacher
	Regular for classes (5)	Submission of records (5)	Behavior in class and discipline (5)	Dress code and preventability (5)	Total (20)			
At the end of clinical postings								

SMALL GROUP DISCUSSION/BEDSIDE CLINICS —ASSESSMENT AND FEEDBACK

Module #	Name of SGD/SDL Activity	Date Completed	Score	Initial of faculty And date	Feedback Received Initial of learner

Small group discussions will be scored based on the following criteria. Marks to be given

Score	Criteria for assessment
5	Is a proactive participant showing a balance between listening, initiating, and focusing discussion. Displays a proactive use of the whole range of discussion skills to keep discussion going and to involve everyone in the group. Understands the purpose of the discussion and keeps the discussion focused and on topic. Applies skills with confidence, showing leadership and sensitivity.
4	Is an active participant showing a balance between listening, initiating, and focusing discussion. Demonstrates all the elements of discussion skills but uses them less frequently and with less confidence than the above level. Keeps the discussion going but more as a supporter than a leader. Tries to involve everyone in the group. Demonstrates many skills but lacks the confidence to pursue them so that the group takes longer than necessary to reach consensus. Demonstrates a positive approach but is more focused on getting done than on having a positive discussion.
3	Is an active listener but defers easily to others and lacks confidence to pursue personal point of view even when it is right? Participates but doesn't use skills such as summarizing and clarifying often enough to show confidence. Limit's discussion skills to asking questions, summarizing, and staying on topic. Lacks balance between discussion and analytical skills. Either displays good analysis skills and poor discussion skills or good discussion skills and poor analysis skills.
2	Is an active listener but defers easily to others and tends not pursue personal point of view, lacking confidence. Limit's discussion skills to asking questions, summarizing and staying on topic. Rarely demonstrates analysis skills because doesn't understand the purpose of the discussion, and as a result, offers little evidence to support any point of view.
1	Demonstrates no participation or effort. Participates only when prompted by the teacher. Only responds to others and initiates nothing. Provides limited responses that are often off topic. Participates minimally so that it is impossible to assess analysis skills or understanding of the issues.

PSYCHIATRY

Preamble

Mental health disorders have been on the rise & there is a dearth of mental health care professionals in the country. There is a huge treatment gap and the existing mental health care professionals are unable to cater to all those who suffer from mental health disorders & most of these also go unrecognised which further results in a higher suicide rate & other disabilities. Untreated mental illnesses result in stigma ,discrimination and poor quality of life, which further increases distress, disability, morbidity and mortality across the life span of the person and affects the individual, family and community. Hence, it is imperative that Indian Medical Graduate should be competent in diagnosing and managing mental health disorders & is well equipped with the knowledge & skills required to recognise,treat and refer appropriately.

Objectives of 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 in dealing with mental health disorders , 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 learner of the Indian Medical Graduate are hereby prescribed:-

National Goals

At the end of undergraduate program, Indian Medical Graduate should be able to:

1. Recognize "mental well-being for all" as a national goal and health right of all the citizens.
2. Recognize mental health as an integral part of health and that mental health is more than the absence of mental disorders.
3. Know aspects of National Mental Health Policy of India and Mental Health Care Act , and devote herself/himself to its practical implementation.
4. Achieve competence in practice of holistic medicine, promotive, preventive, curative and rehabilitative aspects of common mental health disorders.
5. Able to deal with stigma related to mental health disorders in the community.
6. Act as a responsible citizen by observance of medical ethics and fulfilling social and professional obligations , so as to act in the best of national interest.

Institutional goals

The institutional goals reflect the Indian medical graduates who should be:

1. Competent in diagnosis and management of common mental health problems both at the individual and community level. These skills should be utilised at the primary, secondary and tertiary health care levels.
2. Able to understand the biopsychosocial model and aetiology of mental health disorders.
3. Competent to use different therapeutic modalities specially essential drugs and adverse effects.
4. Appreciate the importance of self learning and documentation skills.
5. Able to acquire proficiency in communication skills.
6. Personal characteristics of empathy, integrity and responsibility for other individuals.
7. Able to liaise with other medical specialties in treating an individual with mental health disorder.

Goals for the learner:

Indian Medical Graduate should be :

1. Clinician who understands and provides preventive, promotive, curative, palliative and holistic care for an individual with mental health disorder.
2. Able to communicate with patients ,families, colleagues and community.
3. Professional who is responsive towards the mental health condition of the individual and community.
4. Lifelong learner for continuous improvement of skills and knowledge.

Outcomes:

The individual outcome (competency) had to be reviewed on the lines of the learning domains (knowledge,skill,attitude and communication). The Indian Medical Graduate will be expected to do the things they are going to have to in practice and to do those things well. They have to know (K), know how(KH),show how(SH), and perform(P) the skills acquired. The Indian Medical Graduates are expected to decrease the burden of mental health disorders in the community by identifying and treating them at the primary, secondary and tertiary health care levels and enhance understanding of mental health in the country.

Number Number	Competency - The student should be able to -	Do- main K/S/ A/C	Level K/KH/ SH/P	Core - Y/N	Suggested teaching learning method	Suggested assessment method	Num- ber re- quired to cer- tify	Verti- cal In- tegra- tion	Horizon- tal Inte- gration
PSYCHIATRY									
Topic 1 - Doctor Patient Relationship			Number of competencies - 4				Number of skills that require certification - (NIL)		
PS 1.1	Empathetic interviewing	A/C	SH	Y	DOAP session	Skill station			
PS 1.2	Communication skills	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
PS 1.3	Break bad news in a simulated environment	A/C	SH	Y	DOAP Session	Skill station			
PS 1.4	Doctor patient confidentiality	A/C	SH	Y	DOAP session	Faculty observation			
Topic 2 - Mental health			Number of competencies - 5				Number of skills that require certification - (NIL)		
PS 2.1	Stress and its components	K	K	Y	Lecture , small group discussion	Written/ Viva voce			
PS 2.2	Study skills and sleep wake habits in avoidance of stress	K	KH	Y	Lecture , small group discussion	Viva voce			
PS 2.3	Principles and components of learning and memory	K	K	Y	Lecture , small group discussion	Written/ Viva voce			
PS 2.4	Describe principles of personality development	K	K	Y	Lecture , small group discussion	Written/ Viva voce			

PS 2.5	Concept of normality	K	K	Y	Lecture , small group discussion	Viva voce			
--------	----------------------	---	---	---	----------------------------------	-----------	--	--	--

Topic 3 - Introduction to psychiatry			Number of competencies - 12			Number of skills that require certification - (NIL)			
PS 3.1	HIstory of psychiatry	K	KH	Y	Lecture	Written/viva voce			
PS 3.2	Identifying and recognizing common psychiatric symptoms	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 3.3	Psychiatric history taking	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 3.4	Establishing rapport	S/A	SH	Y	Bedside clinic,DOAP session	Skill assessment/Faculty observation			
PS 3.5	Mini mental status examination	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 3.6	Understand the Biopsychosocial model - biological, psychological & social factors & their interactions in the causation of mental disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 3.7	Common organic psychiatric disorders, their epidemiology ,etiology and clinical features	K	KH	Y	Lecture,small group discussion	Written/viva voce			General medicine

PS 3.8	Investigations in organic psychiatric disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			General medicine
PS 3.9	Steps of family education in organic disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 3.10	Pharmacologic basis and side effects of drugs used in psychiatric disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 3.11	Recognize the appropriate conditions for specialist referral in patients with psychiatric disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			
PS 3.12	Define and differentiate between psychotic and non psychotic (Mood, Anxiety, Stress related) disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
Topic 4 - Substance use disorders		Number of competencies: (07)			Number of procedures that require certification: (NIL)				
PS 4.1	Etiology and epidemiology of alcohol use disorders and other substance disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			General medicine
PS 4.2	Clinical signs and symptoms of alcohol and substance use disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			General medicine

PS 4.3	Laboratory tests used in alcohol and substance abuse disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			General medicine
PS 4.4	Principles of 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
PS 4.5	Family education in a patient with alcohol and substance abuse	S	SH	Y	Bedside clinic,DOAP session	Skill assessment		AET-COM	
PS 4.6	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
PS 4.7	Recognize the need of and 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 5 - Psychotic disorders
Number of competencies: (07)
Number of procedures that require certification: (NIL)

PS 5.1	Magnitude and etiology of psychotic disorders including schizophrenia	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 5.2	Clinical features including the positive , negative and cognitive symptoms of schizophrenia	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			

PS 5.3	Pharmacological and psychological treatments of schizophrenia	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 5.4	Principles of family education in a patient with schizophrenia	K/S/A/C	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 5.5	Pharmacologic basis and side effects of drugs used in schizophrenia	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 5.6	Recognize the need of and the appropriate conditions for specialist referral in patients with psychotic disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			

Topic 6 - Depression
Number of competencies: (07)
Number of procedures that require certification: (NIL)

PS 6.1	Classification , magnitude and etiology of depression	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 6.2	Clinical signs and symptoms in patients with depression	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 6.3	Interpretations of laboratory tests used in depression	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 6.4	Treatment of depression including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	

PS 6.5	Family education in a patient with depression	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 6.6	Pharmacologic basis and side effects of drugs used in depression	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 6.7	Recognize the need of and the appropriate conditions for specialist referral in patients with depression	K	K	Y	Lecture,small group discussion	Written/viva voce			

Topic 7 - Bipolar disorders
Number of competencies: (07)
Number of procedures that require certification: (NIL)

PS 7.1	Classification and etiology of bipolar disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 7.2	Clinical features in patients with bipolar disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 7.3	Laboratory tests used in bipolar disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 7.4	Treatment of bipolar disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 7.5	Family education in a patient with bipolar disorder in a simulated environment	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			

PS 7.6	Pharmacologic basis and side effects of drugs used in bipolar disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 7.7	Specialist referral in patients with bipolar disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			

Topic 8 - Anxiety disorders
Number of competencies: (07)
Number of procedures that require certification: (NIL)

PS 8.1	Classification and etiology of anxiety disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 8.2	Clinical signs and symptoms in patients with anxiety disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 8.3	Interpretations of laboratory tests used in anxiety disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 8.4	Principles of treatment of anxiety disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 8.5	Family education in a patient with anxiety disorder in a simulated environment	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 8.6	Pharmacologic basis and side effects of drugs used in anxiety disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	

PS 8.7	Specialist referral in patients with anxiety disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			
Topic 9 - Stress related disorders			Number of competencies: (07)			Number of procedures that require certification: (NIL)			
PS 9.1	Classification and etiology of stress related disorders	K	KH	Y	Lecture,small group discussion				
PS 9.2	Clinical signs and symptoms in patients with stress related disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 9.3	Interpretations of laboratory tests used in stress related disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 9.4	Treatment of stress related disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 9.5	Family education in a patient with stress related disorder	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 9.6	Pharmacologic basis and side effects of drugs used in stress related disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 9.7	Specialist referral in patients with stress related disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			

Topic 10 - Somatoform disorders			Number of competencies: (07)			Number of procedures that require certification: (NIL)			
PS 10.1	Classification and etiology of somatoform, dissociative and conversion disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			General medicine
PS 10.2	Have knowledge of ,recognize and elicit the clinical signs and symptoms in patients with somatoform, dissociative and conversion disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			General medicine
PS 10.3	Have knowledge of the indications of laboratory tests used in somatoform, dissociative and conversion disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			General medicine
PS 10.4	Know the principles of treatment of somatoform, dissociative and conversion disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	General medicine
PS 10.5	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			

PS 10.6	Give detailed account of 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
PS 10.7	Recognize the need of and 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 11 - Personality disorders
Number of competencies: (07)
Number of procedures that require certification: (NIL)

PS 11.1	Classify and give descriptions of the magnitude and etiology of personality disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 11.2	Clinical signs and symptoms in patients with personality disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 11.3	Indications of laboratory tests used in personality disorders	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 11.4	Principles of treatment of personality disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	

PS 11.5	Family education in a patient with personality disorders in a simulated environment	S/A/C	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 11.6	Pharmacologic basis of drugs used in personality disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 11.7	Recognize the need of and the appropriate conditions for specialist referral in patients with personality disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			

Topic 12 - Psychosomatic disorders
Number of competencies: (07)
Number of procedures that require certification: (NIL)

PS 12.1	Classify and give etiology of psychosomatic disorders.	K	KH	Y	Lecture,small group discussion	Written/viva voce			General medicine
PS 12.2	Elicit the clinical signs and symptoms in patients with psychosomatic disorders.	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			General medicine
PS 12.3	Have knowledge of the indications of laboratory tests used in psychosomatic disorders.	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			General medicine
PS 12.4	Know the principles of treatment of psychosomatic disorders .	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	General medicine

PS 12.5	Demonstrate family education in a patient with psychosomatic disorders in a simulated environment	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 12.6	Give detailed account of pharmacologic basis of drugs used in psychosomatic disorders.	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 12.7	Recognize the need of and the appropriate conditions for specialist referral in patients with psychosomatic disorders.	K	K	Y	Lecture,small group discussion	Written/viva voce			

Topic 13 - Psychosexual and gender identity disorders

Number of competencies: (07)

Number of procedures that require certification: (NIL)

PS 13.1	Classification and etiology of psychosexual and gender identity disorders.	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 13.2	Clinical signs and symptoms in patients with psychosexual and gender identity disorders.	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 13.3	Indications of laboratory tests used in psychosexual and gender identity disorders.	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			

PS 13.4	Treatment of psychosexual and gender identity disorders including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pharmacology	
PS 13.5	Family education in a patient with psychosexual and gender identity disorders in a simulated environment	S	SH	Y	Bedside clinic,DOAP session	Skill assessment			
PS 13.6	Pharmacologic basis and side effects of drugs used in psychosexual and gender identity disorders	K	KH	Y	Lecture,small group discussion	Written/viva voce			
PS 13.7	Recognize appropriate conditions for specialist referral in patients with psychosexual and gender identity disorders	K	K	Y	Lecture,small group discussion	Written/viva voce			
Topic 14 - Psychiatric disorders in childhood and adolescence		Number of competencies: (06)				Number of procedures that require certification: (NIL)			
PS 14.1	Classify and give descriptions of the magnitude and etiology of psychiatric disorders occurring in childhood and adolescence	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pediatrics	

PS 14.2	Recognize and elicit the clinical signs and symptoms in patients with psychiatric disorders occurring in childhood and adolescence	S	SH	Y	Bedside clinic,DOAP session	Skill assessment		Pediatrics	
PS 14.3	Know the principles of treatment of psychiatric disorders occurring in childhood and adolescence	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pediatrics	
PS 14.4	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	
PS 14.5	Give detailed account of 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	
PS 14.6	Recognize the appropriate conditions for specialist referral in patients with psychiatric disorders occurring in childhood and adolescence	K	K	Y	Lecture,small group discussion	Written/viva voce			

Topic 15 - Mental retardation		Number of competencies: (04)			Number of procedures that require certification: (NIL)			
PS 15.1	Etiology of mental retardation	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pediatrics
PS 15.2	Describe and define intelligence quotient and its measurement	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pediatrics
PS 15.3	Collecting and documenting history and performing appropriate clinical examination and choosing required investigations in a patient with mental retardation	K/S	SH	Y	Bedside clinic,DOAP session	Skill assessment		Pediatrics
PS 15.4	Know the principles of treatment of mental retardation including psychological and pharmacological therapy	K	KH	Y	Lecture,small group discussion	Written/viva voce		Pediatrics
Topic 16 - Psychiatric disorders in the elderly		Number of competencies: (05)			Number of procedures that require certification: (NIL)			
PS 16.1	Classify ,enumerate and define common psychiatric disorders in the elderly including dementia, depression and psychosis	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		General Medicine
PS 16.2	Etiology of psychiatric illness in the elderly	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		General Medicine

PS 16.3	Know the principles of treatment of psychiatric illness in elderly	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		General Medicine	
PS 16.4	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	
PS 16.5	Recognize the need for specialist referral psychiatric disorders in the elderly	K	K	Y	Lecture, Smallgroup discussion	Written/ Viva voce			

Topic 17 - Psychiatric emergencies

Number of competencies: (03)

Number of procedures that require certification: (NIL)

PS 17.1	Have knowledge about clinical presentations of psychiatric emergencies including suicide, deliberate self harm .	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			
PS 17.2	Have the knowledge of the initial stabilisation and management of psychiatric emergencies	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			
PS 17.3	Recognize appropriate conditions for specialist referral in patients with psychiatric emergencies	K	K	Y	Lecture, Smallgroup discussion	Written/ Viva voce			

Topic 18 - Therapeutics		Number of competencies: (03)				Number of procedures that require certification: (NIL)			
PS 18.1	Knowledge of the indications, dose and side effects of commonly used drugs in psychiatric disorders.	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Pharmacology	
PS 18.2	Indications and mechanism of modified electro convulsive therapy	K	K	Y	Lecture, Smallgroup discussion	Written/ Viva voce			
PS 18.3	Knowledge of principles of psychosocial interventions in psychiatric illness.	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			
Topic 19 - Miscellaneous		Number of competencies: (06)				Number of procedures that require certification: (NIL)			
PS 19.1	Describe the role of community psychiatry	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Community Medicine	
PS 19.2	Enumerate the objectives and strategies of the National Mental health programme	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Community Medicine	
PS 19.3	Have knowledge of the basic legal and ethical issues in psychiatry	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Forensic Medicine and Toxicology, AETCOM	

PS 19.4	Describe the salient features of the prevalent mental health laws in India	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Community Medicine	
PS 19.5	Have knowledge of principles of preventive psychiatry and importance of concept of mental health promotion.	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Community Medicine	
PS 19.6	Have knowledge of and the ability to identify the principles of participatory management of mental illness occurring during disasters	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			
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									
INTEGRATION									
Physiology									
PY 10.7	Have knowledge of the functional units of the cns including cerebral cortex, basal ganglia, thalamus, hypothalamus, cerebellum and limbic system and their abnormalities	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	Human Anatomy

PY 10.8	Identify and delineate behavioural and EEG characteristics during sleep.	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
PY 10.9	Describe and discuss the physiological basis of memory, learning.	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
PY 10.12	Have knowledge of the EEG forms	S	S	Y	Small group teaching	OSPE/Viva voce		Psychiatry	
Pharmacology									
PH 1.19	Discuss the principles of mechanism/s of action, types, doses, side effects, indications and contraindications of the drugs which act on CNS, (including anxiolytics, sedatives & hypnotics, anti-psychotic, antidepressant drugs, antimanic, opioid agonists and antagonists, drugs used for neuro-degenerative disorders, antiepileptics drugs)	K	KH	Y	Lecture	Written/ Viva voce		Psychiatry, physiology	
PH1. 20	Enumerate the effects of acute and chronic ethanol intake . Identify the symptoms and discuss the management of ethanol poisoning.	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	

PH 1.22	Have comprehensive knowledge of drugs of abuse.	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	Forensic medicine
PH 1.23	Explain in detail the mechanism of drug de addiction	K/S	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
PH 5.5	Have an understanding of the risks and the need to exercise caution in prescribing drugs likely to produce dependence	K	KH	Y	Smallgroup discussion	Short note/ Viva voice		Psychiatry	
PH 5.6	Demonstrate the ability and have knowledge to educate the public about various aspects of drug dependence, withdrawal and abuse of over the counter medications	A/C	SH	Y	Smallgroup discussion	Skill station		Psychiatry	
Community medicine									
CM 15.1	Concept of mental health	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
CM 15.2	Enumerate warning signals of mental health disorder	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
CM 15.3	Discuss the national mental health program	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	

Forensic Medicine and Toxicology									
FM 3.17	To identify and have knowledge of the sexual perversions fetishism, transvestism, voyeurism, sadism, necrophagia, masochism, exhibitionism, frotteurism, Necrophilia	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Obstetrics and gynaecology ,Psychiatry	
FM 5.1	Enumerate and define common mental illnesses including post-traumatic stress disorder (PTSD)	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
FM 5.2	Enumerate, classify and explain delusions, hallucinations and obsessions with exemplification	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
FM 5.3	Have knowledge of criminal responsibilities of a mentally ill person	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
FM 5.4	Distinguish between true insanity from feigned insanity	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
FM 5.5	Explain and discuss Delirium tremens	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry, General medicine	

FM 5.6	Have knowledge of the Indian Mental Health Act, 1987 with special reference to admission and discharge of a mentally ill person	K	K/KH	N	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	
General Medicine									
IM 17.14	Educate patients with migraine and tension headache on lifestyle changes.	A/C	SH	N	DOAP Session	Skill assessment		Pharmacology	Psychiatry
IM 21.8	Discuss the precautions to be taken in a patient with suspected suicidal ideation / gesture	K	KH	Y	DOAP Session	Skill assessment		Psychiatry,forensic medicine	
IM 24.2	Demonstrate multidimensional geriatric assessment.	S	SH	Y	Bedside clinic,DOAP Session	Skill assessment		Psychiatry	
IM 24.5	Have comprehensive knowledge of the etiopathogenesis, acute care of depression in the elderly	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
IM 24.7	Have comprehensive knowledge of the clinical presentation, functional changes, management and rehabilitation of personality changes in the elderly.	K	KH	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry

IM 24.19	List and discuss in detail the social problems in the elderly and their impact on health	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
----------	--	---	----	---	--------------------------------	--------------------	--	--	------------

Pediatrics

PE 1.2	Observe the pattern of growth in infants, children	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 1.3	Assessment of anthropometric measurements as per WHO and Indian standards. Discuss the parameters used for assessment in paediatric group	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 1.5	Assessment of developmental milestones	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 5.4	Evaluate children with breath holding spells and their management	K	K	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 5.5	Evaluate children with Temper tantrums and their management	K	K	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 5.7	Evaluate fussy infant and their management	K	K	N	Lecture, Smallgroup discussion	Written			Psychiatry
PE 5.10	Child guidance clinic's role in children with behavioural problems and discuss their appropriate referral criteria	K	K	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry

PE 6.2	Puberty and changes in domains of psychological aspects.	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 6.4	Sexuality in adolescence	K	KH	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 6.5	Explain common nutritional deficiencies in adolescents.	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 6.6	Describe eating disorders in adolescents	K	KH	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 6.7	Common mental health problems faced by adolescents	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
PE 6.13	Discuss the prevalence and the need of recognizing sexual abuse in children and adolescents	K	K	N	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry
Physical Medicine and Rehabilitation									
PM 9.1	Discuss in detail the rehabilitative aspects pertaining to the elderly including patients with dementia, depression.	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce			Psychiatry, - General medicine
Dermatology, venereology and leprosy									
DR 9.7	knowledge of the complications of leprosy , including understanding disability and stigma	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		General medicine	Pharmacology, Psychiatry

Forensic medicine and toxicology									
FM 2.5	Knowledge of the moment of death, modes of death- coma, asphyxia and syncope	K	KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Psychiatry	Pathology
FM 3.14	SEXUAL OFFENCES comprehensive knowledge of the examination of the victim of an alleged case of rape, and the preparation of report	K	K/KH	Y	Lecture, Smallgroup discussion ,Bedside clinic,DOAP session	Written/ Viva voce/ OSCE		Obstetrics and gynaecology ,Psychiatry	
FM 3.15	SEXUAL OFFENCES identification skills of examination of accused and victim of sodomy, preparation of report	K	K/KH	Y	Lecture, Smallgroup discussion ,Bedside clinic,DOAP session	Written/ Viva voce/OSCE		Obstetrics and gynaecology ,Psychiatry	
FM 3.16	SEXUAL OFFENCES Define unnatural sexual offences sodomy, incest, lesbianism, buccal coitus, bestiality, indecent assault and preparation of report.	K	K/KH	Y	Lecture, Smallgroup discussion	Written/ Viva voce		Obstetrics and gynaecology ,Psychiatry	

DERMATOLOGY

Competency Addressed	Specific learning objectives(S-LO)	Suggested Teach- ing- learning Activ- ity	Domain K/S/A/C	Level K/KH/ SH/P
DR1.2 Identify and grade the various common types of acne	-To identify primary lesions like comedones , papules and pustules	Case demonstra- tion/ Bedside Clin- ics	S	SH
DR1.3 Describe the treatment and preventive measures for various kinds of Acne	<ul style="list-style-type: none"> - Enumerate topical and systemic treatment options for acne - Discuss regarding triggering factors in acne 	Small group discussion/lecture	K	K
DR3.1 Identify and distinguish psoriatic lesions from othercauses	<ul style="list-style-type: none"> - Describe clinical features and morphology of psoriasis 	Case demonstra- tion/ Bedside Clin- ics	K	SH
DR3.2 Demonstrate The grattage test	<ul style="list-style-type: none"> - Describe auspitz sign and types of scales 	Case demonstration/ Bedside clinic/DOAP session	S	SH
DR3.3 Enumerate the indications for and describe the various modalities of Treatment	<ul style="list-style-type: none"> - Enumerate topical and systemic therapies in psoriasis - Enumerate types of phototherapy used in psoriasis 	Small group dis- cussion	K	K
DR4.1 Identify and distinguish lichen planuslesions from othercauses	<ul style="list-style-type: none"> - Describe classical morpho- logical features of lichen planus 	Case demonstra- tion/ Bedside Clin- ics	S	SH

Competency Addressed	SLO	Suggested Teach-ing- learning Activ-ity	Domain K/S/A/C	Level K/KH/ SH/P
DR4.2 Enumerate and describe the treatment modalities for lichen planus	<ul style="list-style-type: none"> - Enumerate topical and systemic therapies in Lichen planus 	Small group discussion/ Tutorial	K	KH
DR9.1	<ul style="list-style-type: none"> - Describe structure of M leprae 	Small group	k	KH
describe the epidemiology etiology microbiology, pathogenesis, clinical presentations and diagnostic features of Leprosy	<ul style="list-style-type: none"> - Discuss pathogenesis of leprosy - Enumerate the clinical findings in different spectrum of leprosy 	discussion/ Tutorial/Lecture class		
DR9.2 Demonstrate (and classify based on) the clinical features of leprosy including an appropriate neurologic examination	<ul style="list-style-type: none"> - Describe Ridley jopling classification - Describe cutaneous presentation in different scenario of leprosy - Demonstrate peripheral nerve examination in leprosy 	Case demonstration/ /Bedside clinic/DOAP session	S	SH
DR9.3 Enumerate the indications and observe the performance of a slit skin smear in patients with leprosy	<ul style="list-style-type: none"> - Enumerate the steps in slit skin smear - Enumerate the sites preferred for slit skin smear 	Bedside Clinics/ DOAP session (Demonstration- Observation - Assistance - Performance)	S	KH

DR9.6 Describe the treatment of Leprosy based on the WHO guidelines	<ul style="list-style-type: none"> Enumerate drugs included MDT with respective dosages and frequency as per WHO 	Small group discussion	K	KH
DR9.4 Enumerate, describe and identify lepra reactions and supportive measures and	<ul style="list-style-type: none"> Describe clinical features of lepra reaction Enumerate treatment options for lepra reactions 	<ul style="list-style-type: none"> Small group discussion/bedside clinics/ lectures 	K	KH
Competency Addressed	SLO	Suggested Teaching- learning Activity	Domain K/S/A/C	Level K/KH/ SH/P
therapy of lepra reactions				
DR9.7 Enumerate and describe the complications of leprosy and its management, including understanding disability and stigma.	<ul style="list-style-type: none"> Classify deformities in leprosy Describe examination of sensory and motor system in leprosy Discuss regarding stigma in a case of leprosy 	Small group discussion/ Tutorial	K	KH
DR10.1 Identify and classify syphilis based on the presentation and clinical manifestations	<ul style="list-style-type: none"> Classify the stages of syphilis Describe the cutaneous manifestation in different stages of Syphilis 	Case demonstration/ Bedside Clinics	S	SH
DR10.2 Identify spirochete in a dark ground microscopy	<ul style="list-style-type: none"> Describe the classification and morphology of spirochete 	DOAP session (Demonstration- Observation - Assistance - Performance)	S	SH

DR10.3 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for syphilis	<ul style="list-style-type: none"> Enumerate the drugs used to treat syphilis along with dosage and administration Discuss the adverse reactions of pharmacotherapies of drugs used in Syphilis 	Small group discussion/ Tutorial	K	KH
Competency Addressed	SLO	Suggested Teaching- learning Activity	Domain K/S/A/C	Level K/KH/ SH/P
DR10.5 Counsel in a non-judgmental and empathetic manner patient on prevention of sexually transmitted disease	Demonstrate how to explain the patient regarding safe sex practices	DOAP session (Demonstration- Observation - Assistance - Performance)	C	SH
DR10.6 Describe the etiology, diagnostic and clinical features of nonsyphilitic sexually transmitted diseases (chancroid, donovanosis and LGV)	<ul style="list-style-type: none"> Classify genital ulcer disease Enumerate causes of genital ulcers Describe clinical features of Chancroid, donovanosis and LGV 	Case demonstration/ Bedside Clinics	K	KH
DR10.7 Identify and differentiate based on the clinical features non-syphilitic sexually transmitted genital ulcer diseases (chancroid, donovanosis and LGV)	<ul style="list-style-type: none"> Describe the clinical feature of genital ulcers Demonstrate lymph node examination Describe examination of an ulcer 	Case demonstration/ Bedside Clinics	S	SH
DR10.8 Enumerate the indications and describe the pharmacology, indications and adverse reactions of drugs used in the nonsyphilitic sexually transmitted	<ul style="list-style-type: none"> Enumerate the drugs used to treat non syphilis STI along with dosage and administration Discuss the adverse reactions of pharmacotherapies of drugs 	Small group discussion	K	KH

Competency Addressed	SLO	Suggested Teaching- learning Activity	Domain K/S/A/C	Level K/KH/ SH/P
including opportunistic infections and IRIS	<ul style="list-style-type: none"> - Define IRIS - Describe manifestations of IRIS 	Small group discussion	K	K
DR 11.3 Enumerate indications and describe the pharmacology, administration and adverse effects of pharmacotherapies for dermatologic lesions in HIV	<p>-Enumerate the drugs used in various dermatological manifestations of HIV</p> <p>Describe the adverse effects caused by the above drugs</p>	Small group discussion/lecture	K	KH
1- Basic structure of Skin and examination	<ul style="list-style-type: none"> - Describe structure of epidermis, dermis and dermo epidermal junction - Name the cells in epidermis 	Lecture class		
	<ul style="list-style-type: none"> - Enumerate primary and secondary lesions with definition - Describe basic points in dermatology history taking 			
	-			
2- Bacterial skin infections	<ul style="list-style-type: none"> - enumerate bacterial skin infections - discuss etiological factors and clinical features of different bacterial skin infections - discuss management of bacterial skin infections 			
3- Viral skin infections	<ul style="list-style-type: none"> - enumerate viral skin infections - discuss etiological factors and clinical features of different viral skin infections - Enumerate types of cutaneous warts - describe features of herpes zoster and its complications - discuss management of viral skin infections 			

4- Fungal infections	<ul style="list-style-type: none"> - enumerate superficial fungal infections - discuss etiological factors and clinical features of superficial fungal infections - discuss management of superficial infections 	
	<ul style="list-style-type: none"> - enumerate deep fungal infections - discuss etiological factors and clinical features of deep fungal infections - discuss management of deep fungal infections 	
5- Papulosquamous disorders-Psoriasis and Lichen planus	<ul style="list-style-type: none"> - Enumerate papulosquamous skin disorders - Describe etiopathogenesis and clinical features of psoriasis - Describe the salient features in histopathology of psoriasis - Enumerate topical and systemic treatment for psoriasis - Describe clinical types of lichen planus - Discuss management of lichen planus 	
6- Pigmentary disorders- Vitiligo and melasma	<ul style="list-style-type: none"> - describe different theories in pathogenesis of vitiligo - Describe clinical features of vitiligo - Enumerate the treatment options for vitiligo - Describe clinical features and management of melasma 	
7- Vesiculobullous disorders	<ul style="list-style-type: none"> - Classify vesiculobullous disorders - Describe etiopathogenesis of pemphigus - Describe clinical features of pemphigus - Describe salient features in histopathology of pemphigus - Enumerate variants of pemphigus - enumerate treatment for pemphigus 	
	<ul style="list-style-type: none"> - Describe etiopathogenesis of pemphigoid - Describe clinical features of pemphigoid and other sub epidermal blistering disorders - enumerate treatment for pemphigoid 	

8- Allergic contact dermatitis and patch testing	<ul style="list-style-type: none"> - Describe etiological agents and clinical features of allergic contact - Enumerate differences between allergic and irritant dermatitis - dermatitis - Describe how patch test is performed 	
9- Acne and Rosacea	<ul style="list-style-type: none"> -describe etiopathogenesis of acne - Enumerate grades of acne - Describe clinical features and stages pf rosacea - Discuss treatment options for acne 	
10- Connective tissue disorders	<ul style="list-style-type: none"> - Describe clinical features of scleroderma - Describe clinical features of DLE and SLE - Enumerate criteria to diagnose SLE - Describe cutaneous signs in connective tissue disorders - Enumerate the investigations done in a case of connective tissue disease 	
11- Nutrition and skin	<ul style="list-style-type: none"> - Enumerate cutaneous manifestations of nutritional disorders - Discuss the management of common nutritional disorders with cutaneous manifestations 	
12- Hair and nail disorders	<ul style="list-style-type: none"> - Structure of hair and nail - Enumerate causes for hair loss - Describe nail changes in dermatological disorders 	
13- Urticaria,EMF, SJS, TEN	<ul style="list-style-type: none"> - Describe etiopathogenesis of urticaria - Describe clinical features of EMF - Enumerate differences between SJS and TEN 	
14- Leprosy – part 1- etiopathology and clinical features and management	<ul style="list-style-type: none"> - Describe structure of M Leprae - Describe pathogenesis of leprosy - Discuss - Ridley Jopling classification - Describe clinical features of leprosy - Discuss about multi drug therapy for leprosy 	

15- Leprosy part 2- reactions	<ul style="list-style-type: none"> - Explain etiopathogenesis of type 1 and type 2 lepra reactions - Discuss clinical presentation of lepra reactions - Discuss management of lepra reactions 	
16- Leprosy part 3- deformities	<ul style="list-style-type: none"> - Classify Deformities in leprosy - Discuss the clinical presentation of Deformities - discuss management of Deformities 	
17- STI- part 1- Syphilis	<ul style="list-style-type: none"> - Classify stages of syphilis - Describe cutaneous manifestations in syphilis - Describe management of syphilis 	
18- STI part 2- non syphilitic Genital ulcers	<ul style="list-style-type: none"> - enumerate causes of genital ulcer disease - describe clinical features and management of chancroid, donovanosis, LGV and herpes genitalis 	
19- STI- part 3- Genital discharge	<ul style="list-style-type: none"> - Enumerate causes for genital discharge - Describe the clinical features and examination points in a case of genital discharge - Enumerate investigations in a case of genital discharge - Discuss management of genital discharge 	
20- HIV- mucocutaneous manifestations- clinical features and management	<ul style="list-style-type: none"> - Describe structure of HIV and its pathogenesis - Discuss cutaneous manifestations of HIV and their management 	

SDL

- 1- Antifungals
- 2- Pre and post exposure prophylaxis id HIV
- 3- Cutaneous Tuberculosis
- 4-Systemic disease and skin
- 5- Scabies and pediculosis

SGD

- 1- Antihistamines
- 2- Atopic dermatitis
- 3- Antibiotics in dermatology
- 4-Genodermatoses
- 5-skin malignancies

The above are the 20 hours of lecture with 5 hours of SDL and 5 hours of SGD

ANAESTHESIA

ANAESTHESIOLOGY

SL NO	CONTENT
1	Preamble
2	Objectives
3	Course content
4	Teaching hours & methods
5	Recommended books
6	Specific Learning Objectives (SLO)

PREAMBLE

Goal:

The main goal of the department is to ensure that a fresh MBBS graduate is capable of providing primary care in anaesthesia, pain and critical care in the community and should be able to propagate preventive measures as well. They should have the confidence to resuscitate unresponsive patients by executing basic life support measures and successfully fulfill analgesia requirement of needy patients.

At the end of the MBBS course the student must be able to practice as a primary care anaesthesiologist and pain physician, to function effectively as a community health leader, to assist in the implementation of pain and palliative care services to end of life patients.

Objectives:**A. Knowledge**

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

1. Enumerate the principles of anaesthesia as it is practiced in managing the anesthetized patient in the operating room and in managing the patient in the recovery unit.
2. Discuss and demonstrate principles of applied physiology and applied pharmacology pertaining to the drugs used in general and regional anaesthesia.
3. Enumerate the principles of cardiopulmonary resuscitation.
4. Take care of the unconscious patient, including airway and ventilation management.

5. Discuss the management of blood, fluid, electrolyte balance, and metabolic disturbances in the surgical patient.
6. Review management of acute and chronic pain problems.
7. Demonstrate the evaluation of patients relative to surgical and anesthetic risk and appropriate preoperative preparation of patients subjected to surgery and anesthesia.
8. Enumerate the various techniques of anesthesiology.
9. Describe and discuss the pharmacology of anaesthetic drugs, application, and monitoring
10. Describe the Pharmacology: Basic / Applied of local anaesthetics: Various types of blocks advantages / Problems with each. Descriptive for same main blocks. Local infiltration, Brachial Plexus, Caudal etc.

B. Skills

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

1. Maintain Clear airway in unconscious and trauma patients
2. Do Bag Mask Ventilation
3. Obtain an access to peripheral intravenous line
4. Administer CPR — Basic and advanced
5. Give a simple infiltration block or peripheral nerve block
6. Perform a lumbar puncture in an aseptic manner

C. Attitude and communication skills

All through the duration of the course, the student should be able to demonstrate: -

1. Ability to develop a good rapport with the specialists in secondary and tertiary care hospitals for effective management of cases needing their assistance
2. Adequate communication skills
3. Generate adequate goodwill in the community to enable them to carry out various activities needed to improve the health in the community

PART – A

COURSE CONTENTS:

List of topics in Anaesthesiology as per Competency based UG curriculum of MCI	
SI No	Topic
1	Pre-Anesthetic evaluation
2	General Anaesthesia
3	Airway management
4	Regional Anaesthesia
5	Post anaesthesia recovery
6	Intensive care management
7	Acute and chronic pain management including labor analgesia
8	Fluids
9	Patient safety
10	Cardiopulmonary Resuscitation

TEACHING HOURS AND METHODS:

Theory (Didactic Lectures)	8- Hours
Non-Lecture teaching (small group teaching / tutorials / integrated learning) including formative assessments and internal assessments.	10 Hours
Self-directed learning	2 Hours
Total	20 Hours

*Clinical/bedside teaching – 2 weeks to be shared with dentistry
(Page No.71 – Gazette of India Part III Section 4)

SYLLABUS FOR LARGE GROUP TEACHING/LECTURE

SI No	Topic	No	Competency	Hrs.	T/L Method
1	Pre-An aesthetic Evaluation	AS3.1	Describe the principles of pre-operative evaluation Define PAE Discuss goals of PAE Elicit benefits of PAE Discuss the components of PAE	1	Lecture
2	General anesthesia	AS 4.1	Describe and discuss the pharmacology of drug used in induction and maintenance of general anesthesia (including intravenous and inhalation induction agent, opiate and non-opiate analgesics, depolarising and non – depolarizing muscle relaxants, anticholinesterases)	1	Lecture
3	Airway management	AS 4.2	Describe the anatomy of the airway and its implications for general anesthesia	1	Lecture
4	Regional anesthesia	AS5.1	Enumerate the indications for and describe the principals of regional anesthesia (including spinal epidural and combined)	1	Lecture
5	Regional anesthesia	AS 5.4	Describe the pharmacology and correct use of commonly used drugs and adjuvant agents in regional anesthesia	1	Lecture
6	Pain management	AS8.1 AS 8.2	Describe the anatomy and physiology of pain pathway Describe various pain assessment tools in adults and children	1	Lecture
7	Post-anaesthesia recovery	AS6.1.2	Enumerate the steps of resuscitation in the recovery room correctly	1	Lecture
8	Patient safety	AS 10.1	Enumerate the hazards of incorrect patient positioning	1	Lecture

SMALL GROUP TEACHING

Sl No	Topics	No	Competency	Hrs	TI Method
1	Airway anatomy	AN38.1	Describe the morphology, identify structure of the wall, nerve supply, blood supply and actions of intrinsic and extrinsic muscles of the larynx	1	Integration with Anatomy
2	General Anaesthesia	AS4.3.	Describe the principles of induction and maintenance of general anaesthesia describe the principles and the steps/ techniques in monitoring patients during anaesthesia	1	Small group discussion
3	Regional anaesthesia	AS5.1	discuss the principle and steps of performing spinal anaesthesia .	1	Small group discussion
4	Regional anaesthesia	AS5.3.2	Enumerate the various steps involved in performing peripheral nerve block correctly	1	Small group discussion
5	Regional anaesthesia	AS5.5.1	enumerate the various steps involved in caudal epidural in children	1	Small group discussion
6	Intensive Care Management	AS 7.3	Describe the management of an unconscious patient	1	Small group discussion
7	Pain management	AS8.3	Describe the pharmacology and use of drugs in the management of pain	1	Small group discussion
8	Labor pain management	OG13.1	Enumerate and discuss the physiology of normal labor, mechanism of labor in occipito-anterior presentation, conduct of labor, pain relief.	1	Integration with OBG
9	Post-anaesthesia recovery	AS6.1.9 AS 6.1.10	List equipments and drugs required to be kept in crash cart in recovery room	1	Small group discussion
10	Fluids	AS9.3	Discuss the principle of fluid therapy in the perioperative period Correctly	1	Small group discussion

DOAP SESSIONS/BEDSIDE CLINICS

SI No	Topics	No	Competency	Hrs	TI Method
1	Cardiopulmonary resuscitation	AS2.1.2	Demonstrate the steps of BLS in simulated environment correctly	3	DOAP session
2	Cardiopulmonary resuscitation	AS2.2	Describe the steps and demonstrate in a simulated environment, Advanced Life Support in adults and children	3	DOAP session
3	Pre-Anaesthetic Evaluation	AS3.2.3	Elicit, present, and document an appropriate history including medication history in a patient undergoing Surgery as it pertains to a preoperative anaesthetic evaluation	3	DOAP session
		AS 3.3	Demonstrate and document an appropriate clinical examination in a patient undergoing General Surgery		
4	General Anaesthesia	AS4.3.4	demonstrate the sequence of induction of anaesthesia under supervision correctly.	3	DOAP sessions
5	Mechanical ventilator	AS 7.4	Observe and describe the basic setup process of a ventilator	3	DOAP session
6	Intravenous access	AS9.1.3	Demonstrate the establishment of intravenous access in a simulated Environment	3	DOAP session/skill lab

SELF DIRECTED LEARNING

SI No	No	Competency	Hrs	TI Method
1	AS 1.1 AS 1.2 AS 1.3 AS 1.4	Anaesthesiology as a specialty	1	SDL
2	AS7.5	Monitoring in ICU	1	SDL

SUGGESTED AREAS FOR INTEGRATION: As per the "Competency based Undergraduate Curriculum for the Indian Medical Graduate, National Medical council"

SL NO	NO	COMPETENCY	INTEGRATION WITH DEPT	TYPE OF INTEGRATION
1	AN10.3	Describe, identify and demonstrate formation, branches, relations, area of supply of branches, course and relations of terminal branches of brachial plexus	ANATOMY	VERTICAL
2	AN38.1	Describe the morphology, identify structure of the wall, nerve supply, blood supply and actions of intrinsic and extrinsic muscles of the larynx	ANATOMY	VERTICAL
3	AN50.3	Describe lumbar puncture (site, direction of the needle, structures pierced during the lumbar puncture)	ANATOMY	VERTICAL
4	PY3.2	Describe the types, functions & properties of nerve fibers	PHYSIOLOGY	VERTICAL
5	PY6.2	Describe the mechanics of normal respiration, pressure changes during ventilation, lung volume and capacities, alveolar surface tension, compliance, airway resistance, ventilation, V/P ratio, diffusion capacity of lungs	PHYSIOLOGY	VERTICAL
6	PY11.14	Demonstrate Basic Life Support in a simulated environment	PHYSIOLOGY	VERTICAL
7	PH1.15	Describe mechanism/s of action, types, doses, side effects, indications and contraindications of skeletal muscle relaxants	PHARMACOLOGY	VERTICAL

8	PH1.17	Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of local anaesthetics	PHARMACOLOGY	VERTICAL
9	PH1.18	Describe the mechanism/s of action, types, doses, side effects, indications and contraindications of general anaesthetics, and preanaesthetic medications	PHARMACOLOGY	VERTICAL
10	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	FORENSIC MEDICINE	VERTICAL
11	IM24.11	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery	GENERAL MEDICINE	HORIZONTAL
12	SU11.1	Describe principles of Preoperative assessment.	GENERAL SURGERY	HORIZONTAL
13	SU11.2	Enumerate the principles of general, regional, and local Anaesthesia.	GENERAL SURGERY	HORIZONTAL
14	SU11.3	Demonstrate maintenance of an airway in a mannequin or equivalent	GENERAL SURGERY	HORIZONTAL
15	SU11.5	Describe principles of providing post-operative pain relief and management of chronic pain.	GENERAL SURGERY	HORIZONTAL
16	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	ORTHOPAEDICS	HORIZONTAL
17	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.	OBSTETRICS & GYNAECOLOGY	HORIZONTAL

SKILL CERTIFICATION: Nil

LIST OF RECOMMENDED TEXTBOOKS AND REFERENCE BOOKS

1. **Morgan & Mikhail's Clinical Anesthesiology, 6th edition - John F. Butterworth IV, David C. Mackey, John D. Wasnick**
2. **Clinical Anesthesia, 8e - Paul G Barash**
3. **Pain management - Dr. Steven Waldman**
4. **Hadzic's Textbook of Regional Anesthesia and Acute Pain Management, Second Edition**

REFERENCE BOOKS (Latest Editions)

1. **Miller's Anesthesia**
2. **Wylie Churchill-Davidson's A Practice of Anesthesia**
3. **Clinical Application of Mechanical Ventilation - David Chang**

Specific Learning Objectives (SLO)

SI No	TOPIC	TOPIC		TL METHOD
		COMPETENCY	SLO	
1	CARDIO-PULMONARY RESUSCITATION (CPR)	AS2.1 Enumerate the indications, describe the steps and demonstrate in a simulated environment, Basic Life Support in adults	1. List the indications for basic life support in adults 2. List the equipments required for delivering Basic Life Support in adults 3. Enumerate the steps of basic life support in adults 4. Demonstrate the steps of basic life support in adults in a simulated environment. 5. Enumerate the steps of CPR in pregnant women 6. Demonstrate the steps of using automated external defibrillator.	DOAP

	CARDIO-PULMONARY RESUSCITATION	AS2.2 Enumerate the indications, describe the steps and demonstrate in a simulated environment, Advanced Cardiac Life Support in adults	<ol style="list-style-type: none"> 1. List the indications for advanced cardiac life support in adults 2. Enumerate the reversible causes of cardiac arrest (5H and 5T) 3. List the equipments required for delivering advanced cardiac life support in adults 4. List the drugs required for delivering advanced cardiac life support in adults 5. Enumerate the steps of advanced cardiac life support in adults 6. Demonstrate the steps of advanced cardiac life support in adults 7. Describe different types of defibrillators 8. List the shockable rhythms which need defibrillation. 9. Demonstrate the steps of using defibrillator in adults 	DOAP
2	PREOPERATIVE EVALUATION AND MEDICATION	AS 3.2 Elicit, present and document an appropriate history including medication history in a patient undergoing Surgery as it pertains to a preoperative anaesthetic evaluation	<ol style="list-style-type: none"> 1. Elicit appropriate history including co morbidities, allergic history, 2. Elicit and document previous exposure to anesthesia, any complications and ICU admission. 3. Elicit appropriate medication history and any history of allergy to medication. 4. Elicit and document history of diabetes, hypertension, asthma, thyroid abnormalities, ischemic heart disease 5. Elicit and document history of smoking, alcoholism, drug abuse, tobacco chewing 6. Elicit and document any significant family history pertaining congenital abnormalities. 	DOAP
		AS3.3 Demonstrate and document an appropriate clinical examination in a patient undergoing General Surgery	<ol style="list-style-type: none"> 1. Describe the steps of clinical examinations in a patient posted for surgery 2. Demonstrate the steps of airway examination in a simulated environment 3. Demonstrate the steps of general physical examination 4. Enumerate the steps of preoperative Rapid Airway Assessment 5. Demonstrate the steps of clinical examination of cardiovascular, respiratory, central nervous system, per abdominal systems. 	

3	General anesthesia	AS4.3 Observe and describe the principles and the practical aspects of induction and maintenance of anesthesia	<ol style="list-style-type: none"> 1. Summarise the indications for inhalational induction of anesthesia 2. Summarise the stages and planes of anesthesia 3. Describe the advantages and disadvantages of inhalation of anesthesia 4. Describe the advantages and disadvantages of IV induction of anesthesia 5. Enumerate the factors affecting the IV induction of anesthesia 6. Describe the recognition and management of intra arterial injection of thiopentone sodium 7. Enumerate the steps of rapid sequence induction of anesthesia 8. Describe the goals of maintenance of general anesthesia 9. Discuss about the techniques available for the maintenance of anesthesia 10. Discuss about the risk factors for awareness under anesthesia 	DOAP
4	Intensive care management	AS7.4 Observe and describe the basic setup process of a ventilator	<ol style="list-style-type: none"> 1. Classify the various basic modes of mechanical ventilation used in ICU setting. 2. Describe the basic parameters settings of ventilator 3. List the complications associated with prolonged mechanical ventilation 4. List various drugs used for sedation and analgesia in a patient on mechanical ventilator 	DOAP
5	Fluids	AS 9.1 Establish intravenous access in a simulated environment	<ol style="list-style-type: none"> 1. What are the types of intravenous access and list the indications (medical uses) of intravenous access 2. What are the equipment needed to secure intravenous line 3. Describe the different gauges of iv cannula and how to select the iv-cannula size according to age and required flow rate 4. List the steps needed for establishing intravenous access 5. Discuss the method of insertion of intravenous access 6. Demonstrate the establishment of intravenous access in a simulated environment 7. What care should be taken after securing iv cannula 8. What are the complications of iv cannulation 	DOAP
6	Patient safety	AS 10.1 – 10.4 Patient safety	<ol style="list-style-type: none"> 1. Enumerate the hazards of incorrect patient positioning 2. Enumerate the hazards encountered in the perioperative period and steps/techniques taken to prevent them 3. Describe the role of communication in patient safety 4. Define and describe common medical and medication errors in anaesthesia 	DOAP/ AET-COM

RADIOLOGY

i) GOAL:

The broad goal of teaching the undergraduate medical students in the field of Radio-diagnosis is aimed at making the students realise the basic need of various radio-diagnostic tools in medical practice. They should be aware of the techniques required to be undertaken in different situations for the diagnosis of various ailments as well as during prognostic estimations.

ii) OBJECTIVES**a) KNOWLEDGE:**

The student should be able to:

1. Understand basics of various imaging modalities, its uses, Radiation and hazards.
2. Identify and diagnose various radiological changes in disease conditions of chest and mediastinum, skeletal system, G.I. Tract, G.U. system, OBG, MSK, etc
3. Appreciate and diagnose changes appropriate to various conditions in emergency.
4. Learn about various imaging techniques, including isotopes C.T., Ultrasound, M.R.I. , D.S.A.

b) SKILLS

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

1. Use basic protective techniques during various imaging procedures.
2. Interpret common imaging and diagnostic techniques in various community situations.
3. Advise appropriate diagnostic procedures in specialized circumstances to appropriate specialists.

c) INTEGRATION

At the end of training the student should be able to integrate the relationship of different diagnostic techniques and their clinical correlation that contribute to the diagnosis of diseases.

Sl.No	Core competency	Knowledge	Skills	Competences and Attitudes	Teach-ing learning meth-ods:	As-sess-ment
RD1.1	Define radiation and the interaction of radiation and importance of radiation protection	<ul style="list-style-type: none"> • To list the sources and properties of ionising radiation and radioactive decay • To describe the generation of X-rays and their interaction with matter • To describe the most important dose measures, including absorbed energy dose (Gy), organ and effective doses (Sv) • To be familiar with the principles of the dose length product (DLP) • To explain stochastic, deterministic and teratogenic radiation effects • To list types and magnitudes of radiation risk from radiation exposure in medicine and to compare it to radiation exposure from natural sources • To list concepts of dose measurement and the relevant dose limits as per AER-B guidelines • To understand the As Low As Reasonably Achievable (ALARA) principle • To list the factors influencing image quality and dose in diagnostic radiology 	<ul style="list-style-type: none"> • To apply the knowledge of radiation biology and physics to optimally select the best imaging modality • To use the correct terms to characterise exposure from ionising radiation • To communicate the radiation risk to the patient at an understandable level 	<p>To apply the As Low As Reasonably Achievable (ALARA) principle to the different radiological methods involving ionising radiation</p> <ul style="list-style-type: none"> • To apply radiation protection measures in diagnostic and interventional radiology • To avoid unnecessary radiation exposure by choosing the optimal modality and technique • To consult patients, patients' families and staff on radiation-related risks and benefits of a planned procedure 	Lecture – 1 Hr	NA

RD1.2:	Describe the evolution of Radiodiagnosis. Identify various radiological equipment's In the current era	<ul style="list-style-type: none"> To know about the Historical Events in Radiology Knowledge about Transition of Radiology from X-Ray to USG, CT, MRI, - PET-CT... To know changes in Diagnostic Radiology from conventional to digital imaging and PACS To know about the Future prospects-Artificial Intelligence in imaging Knowledge of Radiological equipment used in the current era -X-Ray, Ultrasound, CT, MRI, PETCT, DSA, Mammography... Knowledge of principle of the various Radiological equipment used Safety of various radiological equipment 	<ul style="list-style-type: none"> To apply the knowledge of various radiological equipment available to optimally select the best imaging modality 	<ul style="list-style-type: none"> Ability to communicate the procedure, benefits and risks of different radiological examinations to patients and their family members 		NA
	a)Cardiovascular Radiology	<p>To describe the normal anatomy and physiology of the heart and vessels on radiographs, ultrasonography/ Doppler sonography, CT, MRI and DSA</p> <ul style="list-style-type: none"> To have a basic understanding of the main imaging techniques, radiography, ultrasonography, CT, MRI and DSA used for cardiovascular imaging To describe the different types of cardiac configuration on chest radiography To explain which chambers form the border of the cardiac silhouette on a chest radiography 	<p>To recognise patterns of cardiac enlargement on radiographic images of the chest</p>	<ul style="list-style-type: none"> To communicate with patients to explain diagnostic imaging and interventional procedures of the cardiac and vascular systems 	Lecture – 1 Hr	NA

		<ul style="list-style-type: none"> • To have a basic understanding of congenital heart disease and the diagnostic features on conventional radiographs • To differentiate radiological features and causes of cardiac enlargement, including acquired valvular disease and pericardial disease • To describe radiological features of vascular occlusion, stenosis and thrombosis in central and peripheral vessels • To explain the diagnostic evaluation of ischaemic heart disease • To describe the normal dimensions of the aorta and classify aortic aneurysms and dissections • To have a basic understanding of the relative values, common indications, contraindications and limitations in cardiovascular imaging 	<ul style="list-style-type: none"> • To recognise basic imaging patterns of occlusion, stenosis, thrombosis and aneurysm on Doppler sonography, CT, MRI and DSA 	<ul style="list-style-type: none"> • To communicate the results of cardiovascular imaging examinations to patients and their families 		
	B) Chest Radiology	<ul style="list-style-type: none"> • To describe the anatomy and physiology of the respiratory system, heart and vessels, mediastinum and chest wall on radiographs and CT • To have a basic understanding of the main imaging techniques (radiography, CT and MRI) used in thoracic imaging • To have an understanding of imaging patterns in chest radiology including consolidations, nodules, radiolucencies, hyperinflation • To describe the chest radiography signs, including silhouette sign, air bronchogram, air crescent sign, deep sulcus sign 	<ul style="list-style-type: none"> • To identify the following structures on postero-anterior (PA) and lateral chest radiographs: lobes and fissures of the lung, trachea, main bronchi, cardiac atria and ventricles, pulmonary arteries, aorta, mediastinal components, diaphragm 	<ul style="list-style-type: none"> • To communicate with patients to explain diagnostic imaging procedures of the chest • To communicate the results of chest imaging examinations to patients and their families 	Lecture – 1 Hr	NA

		<ul style="list-style-type: none"> • To describe the imaging appearance of monitoring and support devices ("tubes and lines") including endotracheal tubes, central venous catheters, nasogastric tubes, chest drains and pacemakers • To list the typical chest radiography appearances and common causes of pleural effusion • To describe the clinical and imaging features of pneumothorax and tension pneumothorax • To list typical imaging features of pneumonia on radiographs and CT • To list typical imaging features of emphysema on radiographs and CT • To describe the typical imaging appearances of bronchiogenic carcinoma and pulmonary metastases on radiographs and CT • To list the typical imaging patterns of mediastinal masses on radiographs and CT • To have an understanding of the clinical work-up of lung nodules • To describe the imaging signs of pulmonary embolism • To have a basic understanding of the common indications, contraindications and limitations in thoracic imaging • To be aware of the differences between high resolution CT (HRCT) of the chest, CT angiography of the pulmonary arteries and staging CT of the chest 	<ul style="list-style-type: none"> • To identify the proper positioning or malpositioning of the following monitoring and support devices ("tubes and lines") including endotracheal tubes, central venous catheters, nasogastric tubes, chest drains, pacemakers • To identify pneumonia, emphysema, pulmonary and mediastinal masses, and pleural effusions on radiographs and CT • To confidently identify pneumothorax and tension pneumothorax on chest radiographs 		
--	--	---	---	--	--

RD1.6	a)GIT & Abdomen	<p>To describe the normal anatomy and physiology of the internal viscera, abdominal organs, omentum, mesentery and peritoneum on conventional radiology, CT, ultrasound and MRI</p> <ul style="list-style-type: none"> • To have a basic understanding of the main imaging techniques, radiography, fluoroscopy, ultrasonography, CT and MRI used in gastrointestinal and abdominal imaging • To list typical imaging features of acute abdominal conditions, including perforation, haemorrhage, inflammation, infection, obstruction, ischaemia and infarction on radiographs, ultrasound and CT • To list typical imaging features diverticulitis, and inflammatory bowel diseases • To have a basic understanding of the relative values, common indications, contraindications and limitations in\gastrointestinal and abdominal imaging 	<ul style="list-style-type: none"> • To delineate the normal internal viscera, abdominal organs, omentum, mesentery and peritoneum on conventional radiology, CT, ultrasound and MRI • To identify signs of ileus/gastrointestinal obstruction on radiographic images of the abdomen • To identify signs of gastrointestinal perforation on radiographic images of the abdomen 	<ul style="list-style-type: none"> • To communicate with patients to explain diagnostic imaging procedures of the abdomen • To communicate the results of abdominal imaging examinations to patients and their families 	Lecture – 1 Hr	NA
-------	-----------------	---	---	---	----------------	----

	B) Urogenital Radiology	<p>To describe the normal anatomy and physiology of the retroperitoneum, kidneys, ureters, bladder, urethra and genital tract on ultrasonography and cross-sectional imaging</p> <ul style="list-style-type: none"> • To have a basic understanding of the main techniques (radiography, ultrasonography, CT and MRI) used in urogenital radiology • To explain when to refer a patient to a radiography, CT or MRI of the urogenital system • To list typical imaging features of the most common diseases of the kidneys and of the urinary tract • To list typical imaging features of the most common pathologies of the prostate, seminal vesicles and testes • To have a basic understanding of the relative value, common indications, contraindications and limitations in urogenital imaging 	<ul style="list-style-type: none"> • To delineate the physiological urogenital structures on cross sectional images • To detect signs of urinary obstruction on ultrasonography, CT and MRI 	<p>To communicate with patients in order to explain imaging procedures in urogenital radiology</p> <ul style="list-style-type: none"> • To communicate the results of a urogenital imaging examination to patients and their families 	Lecture – 1 Hr	NA
RD1.10						

	a) Musculo-skeletal Imaging	<ul style="list-style-type: none"> • To describe the normal anatomy and physiology of the musculoskeletal system on conventional radiology and cross-sectional imaging • To have a basic understanding of the main techniques, radiography, ultrasonography, CT and MRI used in musculoskeletal imaging • To list common imaging presentations of trauma involving the skeleton on conventional radiographs • To list typical imaging presentations of degenerative disorders of the musculoskeletal system on conventional radiographs • To describe common imaging manifestations of musculoskeletal infection and inflammation, metabolic diseases, including osteoporosis, and common bone tumours • To have a basic understanding of the relative values, common indications, contraindications and limitations in musculoskeletal imaging 	<ul style="list-style-type: none"> • To delineate the normal musculoskeletal anatomy on conventional radiographs and cross-sectional imaging • To detect and differentiate common types of fractures on conventional radiographs (e.g. Colles fracture) 	<ul style="list-style-type: none"> • To communicate with patients in order to explain diagnostic imaging procedures of the musculoskeletal system • To communicate the results of a musculoskeletal imaging examination to patients and their families 	Lecture – 1 Hr	NA
--	-----------------------------	---	---	--	----------------	----

	b) Neuroradiology	<ul style="list-style-type: none"> • To describe the normal anatomy and physiology of the brain, skull, skull base, spine, spinal cord and nerve roots on cross-sectional imaging • To have a basic understanding of the main techniques used in neuroradiology; radiography, ultrasonography, CT and MRI • To list typical imaging features of ischaemic and haemorrhagic stroke on cross-sectional imaging • To describe common imaging features of traumatic brain injury and spinal trauma on cross-sectional imaging • To list typical imaging features of white matter disease, inflammation and degeneration on cross-sectional imaging • To describe the anatomy and typical imaging features of pathologies of pontocerebellar angle • To describe the acute headache imaging management and typical imaging features of related diseases • To describe typical imaging features of the most common vascular diseases • To have a basic knowledge of neuroradiological interventions including revascularisation and current interventional treatment options for intracranial aneurysms and arteriovenous malformations of brain and spine. • To have a basic understanding of the relative value, common indications, contraindications and limitations in neuroradiology 	<ul style="list-style-type: none"> • To delineate the normal anatomy of the brain and spine on cross-sectional imaging • To detect and differentiate the different types of intracranial haemorrhage on cross-sectional imaging • To delineate signs of cord compression on cross-sectional imaging 	<ul style="list-style-type: none"> • To communicate with patients to explain diagnostic and common interventional procedures of the brain and spine • To communicate the results of an imaging examination of the brain and spine to patients and their families 	Lecture – 1 Hr	NA
--	-------------------	--	--	--	----------------	----

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	<ul style="list-style-type: none"> • To list typical imaging features of colon tumours • To describe typical imaging features of primary and secondary tumours of the solid abdominal organs and of the gastrointestinal tract • To describe the typical imaging appearances of bronchogenic carcinoma and pulmonary metastases on radiographs and CT • To describe typical imaging features of common bone tumours • To describe typical imaging features of the most common tumours of the brain and spine 	<ul style="list-style-type: none"> • To identify the normal imaging anatomy on imaging • To recognise basic imaging patterns of malignancies in ultrasound, CT, and MRI 	<ul style="list-style-type: none"> • To communicate with patients in order to explain diagnostic imaging procedures • To choose the optimally suited imaging modality for the malignancy 	Lecture – 1 Hr Small group discussion with clinical case scenario (Clinical Post-ing-1)	NA
-------	--	---	---	--	--	----

Integrated Teaching:

RD1.13	Describe the components of the PC & PNDT Act and its medicolegal implications	<ul style="list-style-type: none"> • To know about the PC & PNDT Act and its amendments • Knowledge about registration of place • Knowledge of renewal, suspension or cancellation of registration • Knowledge of qualification of person who can operate • Knowledge of sale of USG machines • Knowledge of maintenance of records • Knowledge of different forms under the act • Knowledge of offences and Penalties 			Small group discussion with clinical case scenario 1 Hr	NA
--------	--	--	--	--	--	----

	Integration: Obstetrics & Gynaecolo- gy, Forensic Medicine & Toxicology					
RD1.13	Radiology spotters		•To recognise basic imaging patterns of common dis- eases in X-Ray, ultrasound, CT, and MRI		Self-Di- rected Learning 1 Hr	NA

Learning Resources:

- Getting Started in Clinical Radiology: From Image to Diagnosis by George W. Eastman , Christoph Wald
- Essentials of Radiology by Fred A. Mettler Jr. MD MPH
- Review of Radiology (PGMEE) by Rajat Jain , Virendra Jain
- Learning Radiology: Recognizing the Basics by William Herring MD FACR
- Chest X-rays for Medical Students by Christopher Clarke, Anthony Dux
- Abdominal X-rays for Medical Students by Christopher Clarke, Anthony Dux
- <https://rescon.jssuni.edu.in/radiologyteachingfiles/>
- <https://rescon.jssuni.edu.in/djcm/>

RESPIRATORY MEDICINE

OBJECTIVES

A) KNOWLEDGE

At the end of the Third Professional MBBS Part I, undergraduate students in Respiratory Medicine must /should be able to describe clinical features and management of Tuberculosis and Airway diseases

B)Skills

As per UG Curriculum document Vol2, page.no18

At the end of Third Professional MBBS Part I, the student should be able to:-

Demonstrate knowledge of National, Regional Health care policies of Tuberculosis (NTEP) that incorporates NHRM NUHM Frameworks, Economics and system that influence health promotion, health care delivery, disease prevention, effectiveness responsiveness Quality and patient safety [3.1.14]

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 identification/Diagnosis, of Tuberculosis and Airway diseases, its prevention and health promotion [3.1.15]

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.[3.1.16]

Demonstrate ability to perform a physical examination that is complete and relevant to identification, of Tuberculosis and Airway diseases its prevention and health promotion.[3.1.17]

Demonstrate ability to choose appropriate diagnostic tests for Tuberculosis and Airway diseases and their interpretation based on their scientific validity, cost effectiveness and clinical context [3.1.11]

Demonstrate ability to perform a physical examination that is contextual to gender, social and economic status, patient preferences and values [3.1.18]

Demonstrate effective clinical problem solving, judgment and ability to interpret and integrate available data in order to address patient problems, generate Differential Diagnosis of Airway Diseases and develop individualized management plans in terms of preventive, promotive and therapeutic goals [3.1.19]

C) Attitude (Affective)

The medical under graduate should demonstrate his ability to communicate with the patient in a respectful manner during History taking and physical Examination

Communication skills of the medical under graduate with peers and Faculty should be effective and encouraging to facilitate

various Teaching Learning Activities, which helps shared Decision making

Integration

At the end of Third Professional MBBS-Part I training he/she should be able to integrate the causes of Tuberculosis and Airway Diseases with relationship of different etiological factors (social, economic and environmental) that contribute to the natural history of Tuberculosis and Airway Diseases

Outcome

At the end of Third Professional MBBS-Part I (8 weeks) Students would be oriented further towards clinical presentation and diagnosis of Tuberculosis and Airway diseases

As per GMER 2019, page. no 143 CT 1.1 Respiratory Medicine

Competencies: The student must demonstrate ability to do the following in relation to TUBERCULOSIS and OBSTRUCTIVE AIRWAY DISEASE

Demonstrate understanding of the physiological and pathological 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,

Communicate effectively, educate and counsel the patient and family

Initiate appropriate cost-effective treatment based on an understanding of the rational drug prescriptions, medical interventions required and preventive measures,

(b) **Integration:** The teaching should be aligned and integrated horizontally and vertically in order to provide sound biologic basis and incorporating the principles of Respiratory medicine into a holistic and comprehensive approach to the care of the patient

TERMS AND TEACHING GUIDELINES

1. LECTURE

Is a teaching-learning method which includes traditional and interactive sessions involving a large group.

2. Seminar/Tutorial: An interactive teaching - learning session wherein students participate in the discussion

3. SMALL GROUP DISCUSSION

(Bedside clinics/OPD)

4 CORE

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

5. NON – CORE

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

No of Topics 2 NO of OUTCOMES 15

Number of teaching hours

Teaching method	HOURS
Lecture classes 10	
Seminars /Tutorials / IntegratedTeaching	8 Hours
Self-directed learning	2 Hours
Total	20 Hours
	Clinical postings

Sl.No	Topic	Number of competencies	Lecture (Hrs)
1	Tuberculosis	5	4
2	Airway diseases	7	6

COMPETENCIES, SPECIFIC LEARNING OBJECTIVES, TEACHING LEARNING & ASSESSMENT METHODS

TOPIC1]TUBERCULOSIS

NO OF COMPETENCIES 5 NO OF PROCEDURES THAT REQUIRE CERTIFICATION 01

Number	Competency & SLOs At the end of the session, student should be able to Discuss and Describe the following:	DOMAIN	Millers pyramid level	core	TEACH-ING and LEARNING Methods	VERTICAL INTEGRA-TION	ASSESS-MENT METHOD
CT1.1	Epidemiology of Tuberculosis at the Global and National Levels with emphasis on its impact on work socio economic conditions /status in India and NTEP Guidelines	K	KH	Y	Lecture	Community Medicine	Vivavoce Written MCQ
CT 1.2	Describe and Discuss the microbiology of Tuberculous bacilli with reference to sputum collection , different staining methods, Grading of sputum smear ,culture Methods and Morphology of Atypical Mycobacteria	K	KH	Y	DOAP session Small group discussions	Microbiology	Viva voce Skill Assessment
CT1.3	Mode of Transmission of Tuberculosis ,Risk factors ,Pathogenesis, Clinical Evolution of Pulmonary and Extra pulmonary Tuberculosis including bone Lymph node and CNS Tuberculosis	K	KH	Y	Lecture	Pathology Medicine horizontal integration	Viva voce Written
CT1.3	Tuberculosis with comorbidities /special situations - pregnancy, HIV Infection, Diabetes Mellitus ,chronic renal disease and chronic liver disease with emphasis on Treatment with Modified Anti Tubercular Therapy	K	KH	Y	Lecture	Microbiology Medicine, Pharmacology	Viva voce Written
CT 1.4	Drug Resistant Tuberculosis Epidemiology, Definition, Microbiological and Therapeutic risk factors Types; MDR and XDR TB	K	KH	Y	Lecture	Microbiology Pharmacology Community Medicine	Viva voce Written

CT 1.10	Demonstrate Acid fast staining ,Interpretation of Acid fast Bacillus staining	K	P	Y	DOAP Session	Microbiology	Skill Assessment
CT 1.11	Assist in performance outline the correct tests that needs to be performed and interpret the results of pleural fluid aspiration	K	KH	Y	DOAP Session Small group discussions	Microbiology Pathology Biochemistry	Viva voce Skill Assessment
CT 1.12	Enumerate the indications for serological tests ,special cultures(MB BACT Culture),- sensitivity testing and PCR(polymerase chain Reaction) tests	K	KH	Y	Lecture	microbiology	vivavoce

K – Knows, KH - Knows How, SH - Shows how, P- performs independently

TOPIC 2] OBSTRUCTIVE AIRWAY DISEASES
NO OF COMPETENCIES 7 NO OF CERTIFICATION nil

Number	Competency & SLOs (At the end of the session, student shall be able to Discuss and Describe :)	DOMAIN	Millers pyramid level	core	Teaching and Learning Methods	Vertical integration	Assessment method
CT 2.1	Definition classification, Risk factors physiological abnormalities pathogenesis and pathological changes in the airways	K	KH	Y	Lecture DOAP session	Physiology Pathology	Written Viva voce skill
CT 2.2	Epidemiology, Risk factors ,impact on public health and evolution of Airway disease	K	KH	Y	Lecture	Community Medicine ?PATHOLOGY	Written Viva voce MCQ
CT 2.3	Causes clinical features and Diagnosis of Acute exacerbation of Airway disease	K	KH	Y	Lecture Small group discussions		Written Viva voce
CT 2.4	Physiology and Patho physiology of Hypoxia and Hypercapnoea	K	KH	Y	Lecture	Physiology Pathology	Written Viva voce MCQ
CT 2.5	Genetics and Distribution of Alpha - 1 Antitrypsin deficiency in Emphysema	K	KH	Y	Lecture	Physiology Pathology	Written Viva voce
CT 2.6	Environmental factors, Air pollution leading to exacerbations of airway diseases	K	KH	Y	Lecture	Community Medicine	Written Viva voce MCQ

K – Knows, KH - Knows How, SH - Shows how, P- performs independently

LEARNING & RESOURCE MATERIAL
RECOMMENDED BOOKS (Recent editions):

. Davidson's Principles and Practice of Medicine

Reference book

Harrison's Principles of Internal Medicine

Guidelines:

- 1) National TB Elimination Programme NTEP (previously known as RNTCP) : <https://tbcindia.gov.in/>
- 2) Global Initiative for Chronic Obstructive Pulmonary Disease: <https://goldcopd.org/>
- 3) Global Initiative for Asthma: <https://ginasthma.org/>



JSS Academy of Higher Education & Research
(Deemed to be University)
Accredited "A+" Grade by NAAC
Sri Shivarathreeshwara Nagar, Mysuru – 570 015