BUCM
Islamabad

CURRICULUM
CLINICALS
SESSION 2025-2026

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OTOLARYNGOLOGY CURRICULUM

S. No	THEME/TOPIC	LEARNING OUTCOMES	LEARNING OBJECTIVES	INSTRUCTIONAL STRATEGIES	ASSESSMENT TOOLS
1.	**Basics of hearing and balance**	• Learners will be able to explain the applied anatomy and physiology of hearing and balance and discuss the implications of Eustachian tube dysfunction on auditory health.	• Describe anatomy and physiology of hearing and balance • Describe the effects of eustachian tube malfunction- • Describe pathophysiology of vertigo- • Demonstrate history taking of ear complaints • perform a clinical examination of the ear • Counsel the patient with ear disease regarding ear surgery-	Short lectures/ Case discussion	OSCE/ Short cases/ MCQ'S
2.	**Deafness**	• Learners will effectively evaluate and manage conductive and sensorineural hearing loss and discuss the implications of deafness in social and legal contexts.	• Describe Conductive, Sensorineural, and Mixed hearing loss • Describe diseases causing Conductive Hearing Loss: Wax, Anotia/ Microtia, EAM Stenosis, Tympanic Membrane Perforation, Retracted TM, Ossicular discontinuity, Otosclerosis- • Describe disease causing sensorineural deafness: Presbycusis, Drug Induced, Hearing Loss, Noise Induced Hearing Loss, Acoustic Trauma, Congenital Deafness • Discuss Auditory Rehabilitation: Hearing aids, Cochlear Implant • Perform and interpret Tuning Fork Tests • Interpret Pure Tone Audiometry, Speech Audiometry & Tympanometry- • Communicate with the patient regarding the effects of noise pollution on hearing-	Short lectures/ Case discussion	OSCE/ Short cases/ MCQ'S

3.	**Ear Discharge**	● Devise a management plan for a patient with ear discharge after interpreting relevant investigations	● Differential Diagnosis of Discharging Ear
			● Discuss classification of Otitis Media -
			  ○ Acute Suppurative Otitis Media-
			  ○ Chronic Suppurative Otitis Media-
			  ○ Complications of Suppurative Otitis Media
			  ○ Cholesteatoma formation
			● Describe CSF Otorrhea-
			● Describe Bleeding from Ear-
			● Describe different types of Tympanoplsty & Mastoidectomy
			● Perform Mastoid dressing-
			● Perform aural toilet-
			● Counsel patient about prevention of water entry in ear-
			● Educate the patient of Chronic Suppurative Otitis Media regarding precautions to prevent water entry in the ear.
				Short lectures/
				Case discussion
					OSCE/
					Short cases/ MCQ'S

4.	**Otalgia**	● Learners will effectively differentiate between referred otalgia and local ear conditions and develop appropriate treatment plans based on investigation results	● Discuss Differential Diagnosis and treatment of
			  ○ Otalgia -
			  ○ Boil -
			  ○ Otitis Externa –
			  ○ Otomycosis
			  ○ Acute Otitis media-
			  ○ Herpes Simplex -
			  ○ Perichondritis -
			  ○ Traumatic conditions of the external and middle ear -
			  ○ Referred otalgia -
			  ○ Barotrauma -
			  ○ Ca- Middle Ear -
				Case Scenario/
				Role play
					MCQS/OSCE

5.	**Vertigo**	● Learners will be able to effectively differentiate between types of vertigo and formulate appropriate treatment	● Differentiate between True, rotatory vertigo, Dizziness, and Unsteadiness- ● Describe Diseases causing Vertigo (BPPV, Vestibular Neuronitis, Meniere's Disease, Labyrinthitis, Acoustic Neuroma)-	Case Scenario/ Role play	MCQS/OSCE

		plans, including rehabilitation strategies, based on investigative findings	● Take a history of patient with vertigo- ● Perform head impulse, nystagmus and test of skew (HINTS) examination- ● Perform Dix-Hallpike and Epley's positional manoeuvres- ● Counsel patient about nature, severity and consequences of disease-		
6.	**Tinnitus**	● Diagnose a case presenting with tinnitus on the basis of signs, symptoms and appropriate investigations ● Suggest a thorough management plan	● Give Overview of Tinnitus- ● Describe Causes of Tinnitus- ● Describe How to investigate and manage a case of ○ Tinnitus-	Case Scenario	MCQS
7.	**Facial disfigurement**	● Learners will be able to Identify the lesions of facial nerve relating to its etiology	● Describe Anatomy of Facial Nerve- ● Describe Electrophysiological Test for Facial Nerve- ● Differentiation between upper and lower motor neuron lesion- ● Describe Causes and work-up in a case of Facial Paralysis Treatment/ Complications and Follow-up- ● Describe Facial nerve palsy (secondary to ear surgery, trauma, bell's palsy and Cholesteatoma)- ● Examine facial nerve of patient- ● Counsel patient about facial exercises, Eye care and recovery process-	Large Group Interactive session/ Case Scenario/ Role play	OSCE/ Short cases/ MCQ'S

8.	**Basics of Nose and Paranasal Sinuses**	● Learners will be able to explain the applied anatomy and physiology of the nose and paranasal sinuses and discuss their relevance to clinical practice	● Describe Anatomy of Nose & Para Nasal Sinuses (PNS) ● Describe Basic concepts in clinical anatomy of Nose & Para Nasal Sinuses- ● Describe Anatomical routes of extensions of disease of Nose and PNS into oral cavity, nose, orbit and skull base- ● Describe Physiology of Nose & Para-Nasal Sinuses- ● Describe Basic concepts in clinical physiology of nose & Paranasal sinuses- ● Describe Patho- physiology and extension of diseases of Nose and PNS into oral cavity, nose orbit and skull base- ● Take history of the Patient with nasal complaints- ● Examine Nose and PNS of patient- ● Interpret the findings on X-rays PNS- ● Counsel patient about consequences of chronic nasal disease-	Short lectures/ Case discussion	OSCE/ Short cases/ MCQ'S
9.	**Nasal Obstruction**	● Learners will be able to analyse different causes of unilateral and bilateral obstruction ● Suggest an appropriate plan of investigation and management	● Discuss Nasal Obstruction (Unilateral /Bilateral/Adults/Children/Neonate)- ○ Deviated Nasal Septum- - Septoplasty & SMR ○ Nasal Polyps- Types & Management ○ Foreign Body Nose- ○ Septal Hematoma/Abscess- ○ Adenoids- ○ Obstructive Sleep Apnoea- ○ Congenital abnormalities (Choanal Atresia/Meningocele/ Encephalocele)- ○ Tumors of Nose - Angiofibroma - Ca Nose & PNS, Ca Nasopharynx	Short lectures/ Case discussion	OSCE/ Short cases/ MCQ'S

			● Examine patient to determine unilateral vs bilateral nasal obstruction-		
10.	**Nasal Discharge**	● Learners will be able to differentiate between various types of Rhinitis on the basis of signs and symptoms ● Interpret necessary investigations	● Describe ○ Allergic Rhinitis- ○ Vasomotor Rhinitis - ○ Infective Rhinitis [Viral, Bacterial] ○ Rhinitis Medicamentosa Atrophic Rhinitis- ○ Wegener's Granuloma and other Granulomatous diseases- ○ Investigation of Allergic Rhinitis- ● Take nasal swab for cytology, culture and sensitivity- ● Demonstrate removal of foreign body from nose ● Counsel patient about nasal douching- ● Counsel patient about Allergy prevention-	Short lectures/ Case discussion	OSCE/ Short cases/ MCQ'S
11.	**Epistaxis**	● Learners will be able to effectively manage cases of epistaxis and implement appropriate measures for refractory cases based on clinical assessments	● Describe Blood Supply of Nose- ● Epistaxis- ● Angiofibroma- ● Manage a patient with epistaxis- ● Perform anterior and posterior nasal packing- ● Perform cautery of septal bleeding points- ● Interpret the findings on X-rays nasal bone in a trauma case- ● Counsel patient about pinching and positioning during epistaxis-	Short lectures/ Case discussion Role play	MCQS/ SEQS/ OSCE/

12.	**Headache and facial pain**	● Learners will be able to Differentiate between causes of Facial Pain and Headache on the basis of history and clinical examination ● Advise necessary investigations ● Suggest appropriate treatment plan	● Explain ○ Facial pain and headache- ○ Acute and Chronic Sinusitis- ○ Pathophysiology of sinus infection- ○ Signs and symptoms of sinus disease- ○ Medical & Surgical treatment of sinus infection- ○ Basics of FESS AND its indication/procedure/complications ○ Conventional Invasive Sinus Surgical Procedures ○ Common orbital, nasal, oral, dental, and intra- cranial complications of Sinus pathology and its management- ○ Fungal Sinusitis and its management- ○ Atypical facial pains- ○ Sinus Barotrauma- ● How to read a sinus CT scan- ● Counsel patient regarding sinus surgery-	Short lectures/ Case discussion	OSCE/ MCQ'S
13.	**Sore throat**	● Learners will effectively manage both acute and chronic tonsillitis, including the development of appropriate treatment plans based on clinical presentations.	Describe: ● Acute & Recurrent Tonsillitis- ● Peritonsillar Abscess- ● Indications and technique of tonsillectomy- ● Acute & Chronic Pharyngitis- ● Basic understanding of the common disorders of oral cavity- ● Demonstrate history taking of patient with sore throat- ● Perform clinical examination of the throat- ● Manage Acute and Recurrent Tonsillitis ● Identify the need of tonsillectomy in a case of Recurrent Tonsillitis ● Counsel the patient (or parents) of Recurrent Tonsillitis regarding tonsillectomy-	Short lectures/ Case discussion	OSCE/ Short cases/ MCQ'S

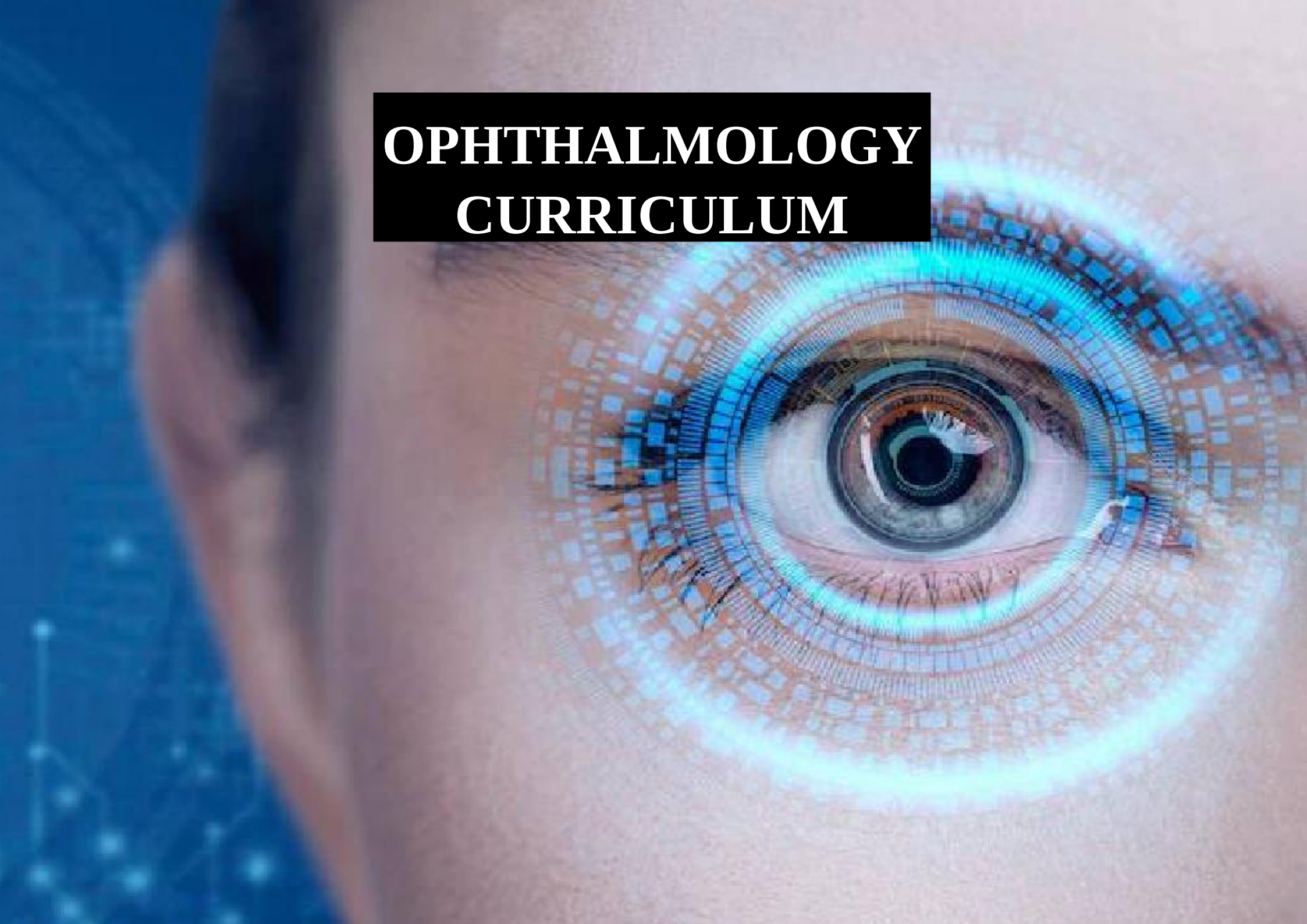
			● Educate the patient about throat hygiene-		
14.	**Dysphagia**	● Learners will be able to differentiate between various types of dysphagia on the basis of etiology and pathophysiology ● Suspect a tumor of oropharynx on the basis of signs and symptoms	● Describe ○ Types of Dysphagia- ○ Normal swallowing mechanism- ○ Plummer Vinson Syndrome- ○ Esophageal Stricture- ○ Oropharyngeal Carcinoma- ● Interpret the findings on X-rays soft tissue neck lateral view- ● Educate the parents about the prevention of foreign body impaction in aerodigestive tract in children-	Short lectures/ Case discussion	OSCE/ Short cases/ MCQ'S

15.	**Hoarseness & Stridor**	● Learners will be able to differentiate between different causes of hoarseness and stridor on the basis of signs and symptoms ● Suggest treatment modalities for hoarseness and stridor	● Describe ○ Congenital Lesions of Larynx- ○ Differences between anatomy and physiology of larynx of a child and adult- ○ Acute & Chronic Laryngitis ○ Acute inflammatory conditions of Larynx - Acute Laryngo-Tracheo-Bronchitis - Acute Epiglotitis - Retropharyngeal Abscess ○ Vocal Nodules & Vocal Polyps ○ Laryngeal Edema ○ Laryngeal Cancer- ○ Causes of Hoarseness- ○ Laryngomalacia ○ Vocal Cord Paralysis ○ Foreign body in tracheobronchial tree ○ Upper Airway Obstruction ○ Alternative airway ○ Indications & Complications of Tracheostomy ● Take history of patient with hoarseness- ● Perform Indirect Laryngoscopy- ● Evaluate Laryngeal Crepitus- ● Interpret the X-rays chest of patients with foreign body tracheobronchial tract- ● Demonstrate the method of dislodging foreign body impacted in upper aerodigestive tract- ● Demonstrate the method of tracheostomy on mannequin- ● Demonstrate the method of endotracheal intubation on mannequin- ● Educate the patient about effects of vocal abuse ● Educate the patient about the effect of smoking in producing throat cancer- ● Counsel the patient with throat cancer (Breaking bad news)-	Short lectures/ Case discussion	OSCE/ Short cases/ MCQ'S

			● Educate patient about care of tracheostomy tube-		
16.	**Oral Ulcer**	● Learners will effectively differentiate between diseases causing oral ulcers, demonstrating an understanding of clinical features.	● Discuss Differential Diagnosis of oral ulcer- ● Systemic diseases manifesting as oral ulcer- ● Carcinoma of Oral Cavity ● Precancerous Oral Cavity Lesions ● Perform clinical examination of Oral Cavity ● Recognize ulceration at lateral margin of tongue ● Suggest different treatment modalities on the basis of biopsy ● Educate the patient about the effects of Paan (Betel Nut) & Niswar in causing cancer of oral cavity	Short lectures/ Case discussion	OSCE/ Short cases/ MCQ'S
17.	**Neck masses**	● Learners will be able to differentiate between different types of neck masses on the basis of signs and symptoms ● Advise relevant Investigations and management plan	● Describe ○ Distribution and drainage area of Neck Lymph Nodes ○ Differential Diagnosis of Lateral Neck Masses- ○ Work-up for a suspected metastatic Lymph Node in Neck ○ Congenital Neck Masses- ○ Ranula ○ Thyroglossal Duct Cyst- ○ Thyroid gland anatomy and pathology- ● Examine neck swelling of the patient ● Examine thyroid gland and related systemic signs of patient-	Short lectures/ Case discussion	OSCE/ Short cases/ MCQ'S
18.	**Advances in ENT / Neck surgeries**	Learners will critically evaluate and discuss recent trends in ENT treatment modalities, applying this knowledge to clinical practice.	● Describe ○ Laser Surgery, Cryosurgery- ○ HIV Infection/AIDS ENT manifestations- ○ Physics and physiology of LASER surgery and Cryosurgery-	Case discussion	MCQS

			○ Basics of Radiotherapy & Chemotherapy used in head and neck cancers-		

OPHTHALMOLOGY CURRICULUM



S. No	TOPIC/ THEME	LEARNING OUTCOMES	LEARNING OBJECTIVES	INSTRUCTIONAL STRATEGIES	ASSESSMENT TOOLS
1	**Eye Lid & adnexa**	● The learner will effectively diagnose common eyelid conditions and appropriately refer patients to an ophthalmologist for further evaluation and treatment.	● Describe: ○ Ptosis and its classification, Blepharitis,Acute and chronic dacryocystitis ○ Discuss evaluation of dry eye ○ Identify conditions like ptosis, lid tumors and benign lesions, Entropion, Ectropion, dry eyes etc. based on their clinical assessment and make a referral to an ophthalmologist	● LGIS ● Clinicopathological conference (CPC), ● Simulations ● Workshops-based discussion ● Oral case presentation ● Bedside teaching ● In-patient and outpatient teaching.	MCQs, SEQs, OSCE, Long Case
2	**Conjunctiva, Episclera & sclera**	● The learners will recognize conditions like Pterygium, Pinguecula, conjunctivitis episcleritis, and scleritis.	● Discuss: ○ Bacterial, Viral Allergic, and other types of conjunctivitis, Pterygium, Pingecula, Ophthalmianeonatorum, Episcleritis, Scleritis. ○ Identify red eye-causing common conditions for their initial management.	● LGIS ● Clinicopathological conference (CPC), ● Simulations ● Workshops based discussion ● Oral case presentation ● Bedside teaching ● In-patient and out-patient teaching.	MCQs, SEQs, OSCE, Long Case

3	**Orbit**	● Recognize proptosis and its common causes like thyroid eye disease, orbital inflammatory disease and orbital tumors. Advise common investigations required for its evaluation. ● Summarize various medical and surgical management options.	● Describe : ○ Proptosis and its common causes, Thyroid eye disease. Orbital tumors, Cellulitis.	● LGIS ● Clinicopathological conference (CPC), ● Simulations ● Workshops based discussion ● Oral case presentation ● Bedside teaching ● In-patient and out-patient teaching.	MCQs, SEQs, OSCE, Long Case
4	**Uveitis**	● The learners will be able to recognize signs and symptoms of acute uveitis for giving its initial treatment	● Discuss ○ Uveitis and its Classification Acute Anterior uveitis and its initial treatment ○ Identify uveitis as a cause of decreased vision	● LGIS ● Clinicopathological conference (CPC), ● Simulations ● Workshops-based discussion ● Oral case presentation ● Bedside teaching ● In-patient and out-patient teaching.	MCQs, SEQs, OSCE, Long Case

5	**Corneal Diseases**	● Learners will effectively diagnose corneal ulcers and initiate appropriate treatment based on established management principles.	● Discuss : ○ Bacterial, Fungal, Viral, Corneal Ulcers and use of antibiotics/ cycloplegics Keratoconus ● Identify corneal ulcers for giving initial treatment. ○ Summarize principles of corneal disease management.	● LGIS ● Clinicopathological conference (CPC), ● Simulations ● Workshops-based discussion ● Oral case presentation ● Bedside teaching ● In-patient and outpatient teaching.	MCQs, SEQs, OSCE, Long Case
6	**Lens**	● Learners will diagnose cataracts, explain the visual deterioration associated with each type, and recommend appropriate surgical interventions while understanding potential complications	● Differentiate the Types of cataracts and their evaluation, ECCE/ Phacoemulsification ● Identify different types of cataracts and recognize the type of visual deterioration in each type of cataract. ● Justify different types of surgical options of cataracts including phacoemulsification. ● Summarize principles of corneal disease management. ● Indicate possible complications of cataract Surgery ● Discuss Complications of cataract Surgery	● Seminar Workshops ● LGIS ● Clinicopathological conference (CPC), ● Simulations ● Workshops-based discussion ● Oral case presentation ● Bedside teaching ● In-patient and out-patient teaching.	MCQs, SEQs, OSCE, Long Case

7	**Refractive errors & Refractive Surgery**	● The student will be able to diagnose and recommend appropriate treatment for refractive conditions	● Describe Refractive Errors Types and Management ● Identify common refractive conditions of the eye like myopia, hypermetropia and astigmatism. ● Summarize various treatment options. ● Discuss refractive surgery and keratoplasty	● Seminar Workshops ● LGIS ● Clinicopathological conference (CPC), ● Simulations ● Workshops-based discussion ● Oral case presentation ● Bedside teaching ● In-patient and out-patient teaching.	MCQs, SEQs, OSCE, Long Case
8	**Glaucoma and ocular therapeutics**	● Learners will effectively differentiate between types of glaucoma and recommend appropriate treatment options based on clinical signs and investigations	● Describe types of glaucoma & Evaluation, Classification, POAG, PACG, Surgery, Drugs ● Enlist other options of Glaucoma management including laser filtration surgery, cyclo-destructive procedures and implants. ● Identify shallow anterior chamber for avoiding mydriatic eye drops to prevent acute congestive glaucoma. ● Discuss Lasers to treat glaucoma	● LGIS ● Clinicopathological conference (CPC), ● Simulations ● Workshops based discussion ● Oral case presentation ● Bedside teaching ● In-patient and out-patient teaching.	MCQs, SEQs, OSCE, Long Case

9	**Retinal vascular diseases, Retinal Detachment, Common Fundus Pathologies**	● Learners will be able to Correlate symptoms with signs of retinal vascular diseases, ocular tumors, and fundus pathologies	● Identify retinal disorder as a cause of reduce vision. ● Suggest common treatment option of retinal diseases. ● Discuss broad outline of management of RD, diabetic retinopathy and AMD and use of lasers in ophthalmology ● Describe Conditions affecting retinal vasculature and their Evaluation, Hypertensive Retinopathy, Diabetic Retinopathy, CRVO, BRVO, CRAO, AMD, RP Types of retinal detachment, clinical exam, investigations and surgical options Vitrectomy and its Indications use of lasers	● Seminar Workshops ● LGIS ● Clinicopathological conference (CPC), ● Simulations ● Workshops-based discussion ● Oral case presentation ● Bedside teaching ● In-patient and out-patient teaching.	MCQs, SEQs, OSCE, Long Case
10	**Strabismus & Neuro Ophthalmology**	● Learners will be able to Differentiate between comitant and non-comitant strabismus. ● Perform cover & uncover test. ● Enlist surgical and non-surgical treatment of strabismus. ● Reproduce Cranial nerve pathway and nerve supply of extra ocular muscles. ● Enlist relevant laboratory investigations and imaging & surgical and non-surgical treatment options.	● Describe Types of squint and its Management, Cranial nerves palsies, tumors, papilledema, visual field in various optic pathway lesions Pupillary disorders associated with nerve palsies and systemic diseases.		

12	**Ocular trauma & Emergencies**	● The student will be able to manage chemical eye injuries in an emergency setting	● Differentiate between penetrating and non-penetrating ocular injuries.
			● Discuss different types of chemicals damaging eye (Acid/alkali/Alcohol/elfy) and its symptoms and signs.
			● Manage chemical injuries of the eye Identify ophthalmic emergencies and their management
			● Elaborate on types of ocular injuries initial Evaluation and management of ocular trauma and Chemical injury red eye
			  ○ Painful
			  ○ Painless
			● Causes of sudden Vision loss
			  ○ Painful
			  ○ Painless		

COMMUNITY MEDICINE & PUBLIC HEALTH CURRICULUM

S. No	TOPIC/ THEME	LEARNING OUTCOMES	LEARNING OBJECTIVES	INSTRUCTIONAL STRATEGIES	ASSESSMENT TOOLS
1.	**Concept Of Health**	● Learners will be able to articulate the concept of health and explain its importance in personal and community well-being.	● Discuss concept of well-being and Spectrum of health ● Describe Concepts and dimensions of health. ● Describe Determinants of health	LGIS	MCQ/SAQ
2.	**Dimensions And Determinants of Health**	● Learners will be able to differentiate between dimensions and determinants of health	● Describe dimensions of health **(**Physical: skin, eyes, hair, appetite etc., Mental, Social, Spiritual, Vocational, Emotional) ● Describe Health Determinants (Biological, Behavioral and socio cultural, Environmental: internal/external, Socio-economic, Health services, aging of the population, Gender)	LGIS	MCQ/SAQ
3.	**Dimensions Shaping Health and Wellness**	● Correlate importance of knowing dimensions and determinants in public health	● Discuss application of dimensions and determinants of health while assessment ● Discuss its application in public health context	SGD (community work)	OSPE
4.	**Concept Of Disease**	● Correlate disease with causative factors	● Explain the concept of Disease. ● Discuss steps of disease causation in relation to different theories (germ theory, epidemiological triad, and web of causation)	LGIS	MCQ/SAQ

5.	**Natural History of Disease**	● Relate the importance of iceberg phenomenon for disease prevention	● Discuss the concept of iceberg phenomenon of disease. ● Explain the Natural history of disease.	SGD(CBL)	MCQ/SAQ
6.	**Dynamics Of Disease Transmission** **(Reservoir, Mode of Transmission & Susceptible Host)**	● The learners will be able to analyse different modes of transmission in different diseases	● Describe reservoir (human, animal and non-living) ● Discuss modes of transmission (direct and indirect) ● Explain how reservoir control, interruption of transmission and susceptibility can be reduced	SGD(CBL)	MCQ/SAQ
7.	**Disease Prevention and Control**	● Correlate importance of prevention at different stages of disease	● Differentiate between disease, illness, and sickness. ● Discuss measures for disease prevention and control. ● Explain how reservoir control, interruption of transmission and susceptibility can be reduced	LGIS	MCQ/SAQ
8.	**Concepts Of Control & Prevention**	● Correlate different modes of interventions according to levels of prevention	● Differentiate between control, elimination, eradication, surveillance, monitoring and sentinel surveillance. ● Describe levels of prevention and modes of intervention	SGD	MCQ/SAQ
9.	**Introduction To Public Health**	● Understand importance of public health	● Discuss Historical Background and evolution of public health. ● Enumerate Branches of Public Health ● Discuss sanitary awakening and rise of public health.	LGIS	MCQ/SAQ
10.	**Public Health Laws**	● Understand public health laws of Pakistan	● Describe the salient features of Health (Management) Service Rules 2008	LGIS	MCQ/SAQ

			● Describe Public health laws along with the salient features of public health laws of Pakistan (The Punjab medical and health institutions act, 2003, Pakistan Environmental Protection Act etc.)		
11.	**Health For All**	● Correlate the importance of provision of basics of health for All	● Discuss the concept of 'health for all.' ● Describe importance of Man and Medicine towards health for all ● Explain different eras of medicine. ● Describe different systems of Medicine	LGIS	MCQ/SAQ
12.	**Community Medicine**	● Understand the distinct focuses of individual patient care, health at the community level.	● Differentiate between medicine, population medicine and community medicine. ● Differentiate between Preventive, curative and Social Medicine	LGIS	MCQ/SAQ
13.	**International Health**	● Describe the geographical spread of diseases and their transmission dynamics among diverse population	● Describe of global disease patterns. ● Describe how diseases are spread geographically and among different populations. ● Explore demographics, environment, and socio-economic status impacting disease patterns. ● Identify common health risks associated with international travel	LGIS	MCQ/SAQ
14.	**Health Status of Pakistan**	● Corelate role of government progress of health	● Describe development of Public Health in Pakistan.	LGIS	MCQ/SAQ

			● Describe Health Policy and planning in Pakistan. ● Relate background of “Health for all” with concepts and progress of health. ● Discuss the role of Federal and Provincial Governments in Health Care		
15.	**Health Indicators**	● Understand the importance of achieving sustainable development goals locally and globally.	● Discuss health indicators of public health importance. ● Outline health-related Millennium development goals	LGIS	MCQ/SAQ
16.	**Health Indicators of Pakistan**	● The learners will be able to analyse the factors contributing to improving health indicators	● Calculate important mortality and morbidity indicators of Pakistan (MMR, IMR etc.)	SGD (CBL)	MCQ/SAQ
17.	**Health Care System**	● Evaluate the structure, function, and effectiveness of healthcare systems	● Describe Health Care Systems in Pakistan ● Discuss District Health System and Levels of Health Care	LGIS	MCQ/SAQ
18.	**Health Care System of Pakistan**	● The learners will be able to evaluate strengths, and weaknesses, for equitable and efficient healthcare delivery.	● Differentiate between infrastructure and Services available at BHU/RHC/tertiary care hospital	SGD (Field visit)	OSPE
19.	**Primary Health Care principles**	● Understand the importance of PHC principles in holistic care	● Describe the importance of primary health care. ● Discuss elements of primary health care ● Discuss principles of primary health care	LGIS	MCQ/SAQ

20.	**Primary health care centre**	● Recognize the central role of PHC in promoting equitable access to essential health care services	● Discuss effective primary healthcare strategies aimed at improving health outcomes at primary health care center.	SGD (Field visit)	
21.	**Doctor As a Manager**	● Integrate principles of effective leadership, decision-making, and resource management into the clinical practice	● Describe the role of Physician as a manager. ● Discuss Functions of manager along with management of material, human and financial resources in health care ● Discuss role of leadership and motivation health care	SGD (CBL)	MCQ/SAQ
22.	**Role Of Partnership in Health**	● Understand the importance of collaboration between diverse stakeholders	● Discuss Partners in Health: The public and private sector. ● Discuss role of Non-governmental Organizations and International Agencies. ● Discuss generation and utilization of Resources for health. ● Discuss importance of Community Mobilization	LGIS	MCQ/SAQ
23.	**Introduction To Epidemiology**	● Understand fundamental principles and concepts of epidemiology	● Define Epidemiology along with its uses. ● Describe three components of epidemiology (Disease frequency, distribution of disease & determinants of disease)	LGIS	MCQ/SAQ
24.	**Basic Measurements in Epidemiology**	● Evaluate the strengths and limitations of epidemiological measurements in assessing disease occurrence and	● Describe tools of measurements in epidemiology (rates and ratios) ● Describe basic measurements in Epidemiology in terms of mortality and morbidity.	LGIS	MCQ/SAQ

		informing public health interventions.	● Describe direct and indirect standardization of age		
25.	**Basic Measurements in Epidemiology**	● Interpret epidemiological measures to assess disease burden, trends, and patterns within populations.	● Calculate basic measurements in Epidemiology in terms of mortality and morbidity.	SGD (CBL)	MCQ/SAQ
26.	**Epidemic**	● Apply epidemiological methods to investigate patterns of disease occurrence.	● Describe importance of Epidemic ● Explain types of Epidemics ● Explain the steps of investigation of Epidemic	SGD (CBL)	MCQ/SAQ
27.	**Association And Causation**	● The learners will be able to distinguish between association and causation in epidemiological studies, understanding the criteria required to establish causality.	● Describe types of association ● Enlist criteria for a causal relationship. ● Discuss models of causation with examples	LGIS	MCQ/SAQ
28.	**Epidemiological Studies (Descriptive Studies)**	● Understand the purpose and importance of descriptive epidemiology in distribution and determinants of disease within populations.	● Describe importance of epidemiological studies ● Classify epidemiological studies. ● Discuss descriptive epidemiological studies.	LGIS	MCQ/SAQ

29.	**Epidemiological Studies (Descriptive Studies)**	● Apply descriptive epidemiological methods to assess public health priorities	● Identify different types of descriptive epidemiological studies, including cross-sectional studies, ecological studies, and case series. ● Analyze descriptive epidemiological data (disease frequency, patterns, and trends over time).	SGD (CBL)	MCQ/SAQ
30.	**Analytical Epidemiological Studies**	● The learners will be able to analyse various types of analytical epidemiological and their respective strengths, limitations, and applications.	● Discuss type of analytical studies ● Discuss steps of Case control studies ● Discuss steps of Cohort studies ● Differentiate between case control and cohort studies	LGIS	MCQ/SAQ
31.	**Analytical Epidemiological Studies**	● Apply appropriate study designs and methodologies to investigate associations between exposures and outcomes.	● Analyze and interpret analytical epidemiological studies to assess the strength and significance of association. ● Discuss measures to control confounding variables and to minimize bias. ● Identify potential causal relationships and risk factors for disease occurrence.	SGD (CBL)	MCQ/SAQ
32.	**Experimental Epidemiological Studies**	● Understand the principles and objectives of experimental research in epidemiology	● Classify experimental studies. ● Describe the steps of experimental studies. ● Discuss role of randomization and blinding in experimental research	LGIS	MCQ/SAQ
33.	**Experimental Epidemiological Studies**	● The learners will be able to evaluate different types of experimental studies.	● Discuss steps of RCT ● Discuss steps of Qais Experimental design	SGD (CBL)	MCQ/SAQ

			● Discuss strengths, limitations, and application of RCT.		
34.	**Introduction To Screening**	● Understand the principles, types, and objectives of screening programs in public health.	● Describe the types and uses of screening. ● Differentiate between diagnostic and screening test. ● Enlist the criteria for screening. ● Describe the qualities of good screening test	LGIS	MCQ/SAQ
35.	**Role Of Screening in Different Diseases**	● Critically evaluate the validity and reliability of screening tests in identifying individuals at risk of disease.	● calculate validity (sensitivity, specificity) predictive values, yield in different diseases(Hypertension, diabetes etc)	SGD (skill lab)	OSPE
36.	**Introduction To Research**	●Understand the importance of research methodology and types.	● Describe the importance of research and survey methodology. ● Differentiate between qualitative and quantitative research	LGIS	MCQ/SAQ
37.	**Biostatistics** **Data**	● Correlate type of data with research different modes of presentation	●Describe importance of Biostatistics and its types. ●Classify Data ● Describe different methods of presentation of statistical data	LGIS	MCQ/SAQ
38.	**Measures Of Central Tendency**	● Apply measures of central tendency in data analysis and interpretation.	● Describe the measures of central tendency (Averages, Mean, Median Mode) ● Discuss importance of interpretation of central tendency in research	LGIS	MCQ/SAQ
39.	**Standard Deviation**	● Apply measures of dispersion in data analysis and interpretation.	● Describe the measures of dispersion.	LGIS	MCQ/SAQ

			● (Range, Mean deviation, Standard deviation) ● Discuss importance of interpretation of standard deviation in research		
40.	**Measures Of Biostatistics**	● Interpret calculated measures of central tendency and dispersion on given data.	● Calculate different measures of central tendency and dispersion. ● Interpret calculated measures of central tendency and dispersion in the context of research	SGD (skill lab)	OSPE
41.	**Probability**	● Relate the real-world applications of the normal distribution curve in medical research and clinical practice.	● Discuss importance of probability in research. ● Describe significance of normal distribution curve ● Explain key characteristics of the normal distribution curve	LGIS	MCQ/SAQ
42.	**Sampling**	● Corelate different sampling techniques according to research question	● Discuss importance of sampling. ● Classify types of probability and non-probability sampling ● Describe measures to reduce bias in sampling.	LGIS	MCQ/SAQ
43.	**Sample Size Calculation**	● Apply sample size calculation methods to hypothetical research scenarios	● Calculate sample size using WHO Calculator	SGD (Skill lab)	OSPE
44.	**Test Of Significance**	● Understand the concept of significance testing and its role in statistical inference	● Discuss the importance of test of significance. ● Enlist different types of tests of significance	LGIS	MCQ/SAQ

45.	**Calculation And Interpretation of Z Scores**	● Interpret the z-score calculations.	● Demonstrate how to calculate and interpret z-scores in the context of the normal distribution curve.	SGD (CBL)	MCQ/SAQ
46.	**Hypothesis Testing**	● Formulate null and alternative hypotheses for research questions	● Discuss importance of hypothesis ● Discuss measures to evaluate hypothesis. ● Describe the alpha and beta errors in relation to research	LGIS	MCQ/SAQ
47.	**Demography I**	● Correlate the structure of populations in terms of demographic across different populations and regions.	● Describe different stages of demographic cycle. ● Describe different types of pyramids. ● Discuss the population pyramid of Pakistan. ● Discuss Demographic and social implication of high population growth.	LGIS	MCQ/SAQ
48.	**Demography II**	● Analyze trends in population growth, fertility, mortality, and migration across diverse populations and time periods.	● Calculate Growth rate, Population/population doubling time, Infant mortality rate/Perinatal mortality rate, Age specific fertility rate, Total fertility rate. ● Develop survey form to measure demographic profile of community	SGD (Skill lab)	OSPE
49.	**Nutrition**	● Demonstrate a comprehensive understanding of basic nutritional concepts	● Differentiate between nutrition, nutrient, food, and diet. ● Describe changing concepts about nutrition.	LGIS	MCQ/SAQ

			● Classify food groups by origin, composition, predominant function, and nutritive value. ● Discuss balance diet		
50.	**Nutrients**	● Analyze role of macronutrients in human health and disease prevention.	● Discuss importance of balance diet ● Classify macro and micronutrients based on their primary function. ● Describe the sources, functions, requirements of fat, protein, and carbohydrates.	LGIS	MCQ/SAQ
51.	**Vitamins And Minerals**	● Analyze role of micronutrients in human health and disease prevention.	● Describe the sources functions, deficiency, and prevention of VIT A, D, and B group of vitamins. ● Differentiate between major minerals, trace element and contaminants. ● Describe the antioxidants	LGIS	MCQ/SAQ
52.	**Nutritional Requirements**	● Address special nutritional needs across the lifespan considering unique physiological and developmental requirements.	● Describe nutritional requirements of an adult person. ● Describe measurement of energy, reference man and women, energy requirement, ● Explain requirement of protein fat and carbohydrate.	LGIS	MCQ/SAQ
53.	**Calculate Nutrition Requirements Of**	● Calculate dietary recommendations in relation to different health conditions	● Calculate dietary intake of average healthy male and female. ● Calculate dietary recommendations based on specific health related condition. (	SGD (community work)	

54.	**Assessment Of Nutritional Status**	● Utilize appropriate methods to assess nutritional status in individuals and populations	● Describe nutritional assessment methods, ● Describe concept of food hygiene (meat, fish, milk, poultry) ● Enlist food borne disease. ● Differentiate between food fortification and food adulteration	LGIS	MCQ/SAQ
55.	**Evaluation Of Nutritional Status of Individual and Community**	● Analyze and apply dietary principles on individuals and community	● Assess nutritional status of individual and community. ● Recommend dietary modifications according to the deficiencies	SGD (community work)	OSPE
56.	**Common Nutritional Problems**	● I The learners will be able to analyse nutritional deficiencies, excesses, and imbalances, and their potential health implication	● Discuss Malnutrition at all stages of life, its types causes and prevention. ● Discuss Common nutritional problems of public health importance and their prevention and control.	LGIS	MCQ/SAQ
57.	**Safe Motherhood**	● Corelate importance of safe motherhood in relation to maternal mortality	● Describe WHO strategies for safe motherhood. ● Enlist high risk mothers. ● Discuss pillars of safe motherhood	LGIS	MCQ/SAQ
58.	**Maternal Mortality**	● Corelate preventive strategies of maternal mortality with relation to risk factors	● Differentiate between maternal mortality rate and ratio. ● Describe Direct, Indirect, Late & coincidental death. ● Describe the demographic indicators of maternal mortality in Pakistan.	LGIS	MCQ/SAQ

			● Describe Risk factors for maternal mortality		
59.	**Prevention Of Maternal Mortality**	● Implement strategies to prevent maternal deaths addressing direct and indirect causes.	● Counsel pregnant women and communities regarding safe motherhood practices. ● Calculate maternal mortality rate and ratio	SGD (community work)	OSPE
60.	**Family Planning**	● understand various family planning methods, and their mechanisms of action and indications.	● Define family planning. ● Differentiate between eligible couple and target couple. ● Enlist objectives of family planning ● Describe Modern concept of family planning. ● Describe health aspects of family planning.	LGIS	MCQ/SAQ
61.	**Contraceptive Devices**	● The learners will be able to counsel on the use of contraceptive methods based on individualized patient assessments	● Counsel a patient for use on contraceptive devices. ● Assess individual's contraceptive needs and preferences.	SGD (skill lab)	OSPE
62.	**Breast Feeding and Infant Mortality**	● Understand maternal, social, and environmental strategies to improve infant health	● Differentiate between infant mortality rate and perinatal mortality rate. ● Discuss importance of breast feeding. ● Discuss measures to improve infant health	LGIS	MCQ/SAQ

63.	**Child Health**	● Corelate role of optimal growth and development of children by early childhood interventions	● Discuss under five child mortality causes. ● Discuss growth monitoring. ● Discuss strategic approaches of integrated management of childhood illness	LGIS	MCQ/SAQ
64.	**School health services**	● Relate importance of school health services with decreasing disease burden of common health issues	● discuss the role and importance of school health services. ● Recognize common health issues in school-age children. ● Develop skills in conducting health screenings and assessments.		
65.	**Sexually Transmitted Diseases**	● Understand the importance of STI prevention and control	● Discuss adolescent health. ● Describe epidemiology of sexually transmitted infections (STI) ● Describe the high-risk factors for STI. ● Describe the principles of prevention and control of STI.	LGIS	MCQ/SAQ
66.	**AIDS**	● Importance of reduction in HIV-related stigma and discrimination through community education, advocacy, legal reforms	● Describe epidemiology and mode of transmission of AIDS. ● Discuss the provision of comprehensive HIV care and support services. ● Describe the prevention of AIDS.	SGD (CBL)	MCQ/SAQ
67.	**Water Hardness**	● Awareness of the effects of water hardens on daily life	● Discuss public health importance of water. ● Differentiate between temporary and permanent hardness of water.	LGIS	MCQ/SAQ

			● Describe at least three methods of removal of hardness.		
68.	**Water Related Disease**	● Corelate promotion of improved hygiene behavior and relation to infectious disease	● Enlist diseases caused by water. ● Classify specific and nonspecific water born disease.	LGIS	MCQ/SAQ
69.	**Purification Of Water**	● Differentiate different types of water filtration on small and large scale	● Discuss importance of water purification ● classify water purification methods. ● Describes methods of water purification on large scale (slow sand filter and rapid sand filter)	LGIS	MCQ/SAQ
70.	**Purification Of Water on Small Scale**	● Apply water purification methods on small scale	● Discuss water purification methods on small scale. ● Discuss steps for chlorination of well. ● calculate chlorine demand of water	SGD (skill lab)	OSPE
71.	**Smoking**	● Understand the health risks and prevention of smoking	● Describe the prevalence of smoking. ● Enlist the hazards of smoking. ● Describe the preventive measures with regards to health promotion strategy ● Describe anti-smoking ordinance	LGIS	MCQ/SAQ
72.	**Air & Ventilation**	● Understand the role of global warming and its effect on health	● Describe the composition of air and its need for human beings. ● Enlist indices of thermal comfort & comfort zones ● Explain vitiation of air, and air composition of an occupied room.	LGIS	MCQ/SAQ

			● Discuss global environmental concerns (Greenhouse effect, depletion of Ozone layer, Acid rains).		
73.	**Air Pollution**	● Corelate air pollution sources with disease outcomes	● Enlist air pollutants and their sources. ● Explain health hazards of air pollution. ● Enlist indicators of air pollution. ● Describe prevention and control of air pollution.	LGIS	MCQ/SAQ
74.	**Noise And Radiation in Modern Environments**	● Understand consequence of noise on health along with its management strategies	● Discuss hazards and control measure for noise reduction. ● Discuss principles of creating healthful housing for promoting well being ● Discuss health problems of urban, rural and slums	LGIS	MCQ/SAQ
75.	**Waste Management**	● Corelate waste disposal management with disease prevention	● Discuss waste disposal methods. ● Describe hazards and safely measure for solid and liquid waste. ● Discuss domestic and industrial waste disposal methods	LGIS	MCQ/SAQ
76.	**Health Care Waste Management**	● Recognize health and environmental risks of improper waste management.	● Describe the importance and types of healthcare waste. ● Describe classification, segregation, handling, and disposal methods. ● Comprehend regulatory guidelines and roles in waste management.	LGIS	MCQ/SAQ
77.	**Occupational Hazards**	● Recognize occupational hazards and its impact on health.	● Identify occupational diseases and their prevention strategies. ● Discuss role of ergonomics	LGIS	MCQ/SAQ

			● Discuss the role of healthcare professionals in promoting occupational health and safety		
78.	**Pneumoconiosis**	● Promote prevention of pneumoconiosis as occupational hazard	● Discuss causes of pneumoconiosis. ● Classify pneumoconiosis based on organic and inorganic dust. ● Discuss strategies for prevention of pneumoconiosis	LGIS	MCQ/SAQ
79.	**Basic Definitions**	● Understand basic concepts of infectious disease	● Differentiate between Infection, contamination, pollution, infestation. ● Differentiate between Infectious disease, communicable disease, and contagious disease. ● Discuss disease having different Incubation period, Infective period, and Generation time. ● Differentiate between Cross infection, Nosocomial infection, Opportunistic Infections and Iatrogenic (Physician induced) disorders.	LGIS	MCQ/SAQ
80.	**Susceptible Host**	● Apply measures to control reservoir and interrupt disease transmission	● describe susceptible host. ● Describe the measures for prevention and control of disease through controlling the reservoir, interruption of transmission and reducing the susceptibility of host	LGIS	MCQ/SAQ
81.	**Host Defenses (Specific Defenses)**	● Conceptualize importance of herd immunity	● Discuss host defenses,	LGIS	MCQ/SAQ

			● Enlist the specific defenses (Active and Passive immunity) ● Describe primary and secondary immune response. ● Describe herd immunity.		
82.	**Vaccines**	● The learners will be able to differentiate the types of vaccines along with their use	● Demonstrate the differences between live attenuated, killed vaccines and toxoid. ● Demonstrate the use of VVM	SGD (Skill lab)	OSPE
83.	**Classification Of Vaccines**	● The learners will be able to differentiate between vaccines and immunoglobulins	● Enlist and explain immunizing agents. ● Classify vaccines. ● Enlist and Describe immunoglobulins used as vaccines. ● Describe immunization schedule.	LGIS	MCQ/SAQ
84.	**Immunization And Vaccination**	● The learners will be able to differentiate between various vaccine used in EPI, routes of administration, side effects & complications.	● Describe the EPI program. ● Enlist various vaccine used in EPI, routes of administration, side effects & complications. ● Explain cold chain and its importance. ● Identify the different vaccine.	LGIS	MCQ/SAQ
85.	**Tetanus**	● Apply knowledge of vaccination according to different scenarios	● Describe epidemiology of tetanus ● Enlist schedule of tetanus in pre and post exposure cases ● Describes prevention of tetanus	LGIS	MCQ/SAQ
86.	**Rabies**	● Apply knowledge of Rabies prevention according to different situations	● Describe the epidemiology and mode of transmission of a case of Rabies. ● Outline the management plan in		

			established case of rabies. ● Discuss the role of vaccination in rabies		
87.	**Dengue Fever & Lymphatic Filariasis**	● Apply preventive strategies for dengue fever and lymphatic filariasis	● Describe the epidemiology, prevalence, and preventive measures of: ● Dengue syndrome ● Lymphatic Filariasis	LGIS	MCQ/SAQ
88.	**Dengue Fever**	● Apply preventive strategies for dengue fever	● Enlist various subtypes of dengue virus. ● Discuss clinical features of diverse types of dengue infections. ● Interpret investigation of dengue Fever ● Discuss management of dengue fever	LGIS	MCQ/SAQ
89.	**Upper Respiratory Tract Infection**	● The learners will be able to analyse prevalence and preventive measures of Influenza	● Describe the epidemiology prevalence and preventive measures of Influenza. ● Diphtheria ● Whooping cough ● Meningococcal meningitis	SGD (CBL)	MCQ/SAQ
90.	**Tuberculosis**	● Relate epidemiological feature of tuberculosis with its prevention	● Describe the epidemiological features of Tuberculosis. ● Discuss prevalence and preventive measures of Tuberculosis. ● Discuss components of DOTS program	LGIS	MCQ/SAQ

91.	**Prevention Of RTI-I**	● Apply preventive strategies for respiratory infections of public health importance	● Describe the epidemiology prevalence and preventive measures of Respiratory infections. ● Smallpox ● Chickenpox ● Acute respiratory infections	SGD (CBL)	MCQ/SAQ
92.	**Prevention Of RTI-II**	● Apply preventive strategies for respiratory infections of public health importance	● Describe the epidemiology prevalence and preventive measures of: ➢ Measles ➢ Rubella ➢ Mumps	SGD (CBL)	MCQ/SAQ
93.	**Trachoma**	● Apply preventive knowledge of trachoma for control of prevalence an incidence	● Describe the epidemiology, mode of transmission and prevention of Trachoma	LGIS	MCQ/SAQ
94.	**Prevention Of Gastro-Intestinal Infections-1**	● Apply preventive strategies for intestinal infections of public health importance	● Discuss the epidemiology prevalence and preventive measures of ➢ Typhoid fever ➢ Food poisoning ➢ Amoebiasis	SGD (CBL)	MCQ/SAQ
95.	**Prevention Of Gastrointestinal Infections-II**	● Apply preventive strategies for intestinal infections of public health importance	● Discuss the epidemiology prevalence and preventive measures of ● Acute diarrheal diseases ● Cholera	SGD (CBL)	MCQ/SAQ
96.	**Prevention Of Gastro-Intestinal Infections-3**	● Apply preventive strategies for intestinal infections of public health importance	● Discuss the epidemiology prevalence and preventive measures of ● Poliomyelitis ● Viral hepatitis	SGD (CBL)	MCQ/SAQ

97.	**Importance Of Lifestyle in Non-Infectious Diseases**	● Apply lifestyle interventions for prevention of chronic diseases	● Define lifestyle Medicine. ● Discuss pillars of lifestyle medicine ● Relate the importance of lifestyle medicine in controlling chronic diseases	LGIS	MCQ/SAQ
98.	**Diabetes Mellitus**	● Apply primary, secondary, and tertiary prevention on cases of diabetes	● Discuss the Epidemiology of diabetes mellitus. ● Discuss role of lifestyle medicine in prevention of diabetes mellitus ● Discuss primary, secondary, and tertiary prevention of Diabetes.	LGIS	MCQ/SAQ
99.	**Obesity**	● Recognize the role of obesity in prevention of non-infectious diseases	● classify obesity. ● Discuss epidemiology of obesity ● Discuss methods of assessment of obesity ● Enlist hazards of obesity ● Describe prevention and control of obesity	LGIS	MCQ/SAQ
100.	**Endemic Goiter**	● Apply preventive strategies for endemic goiter	● Define endemic goiter. ● Discuss epidemiology of endemic goiter ● Discuss prevention of endemic goiter	LGIS	MCQ/SAQ
101.	**Risk Factors Of Coronary Vascular Disease**	● Recognize the role of risk factors in causation of CVD	● Define risk factor of coronary vascular disease. ● Classify risk factor (modifiable and non-modifiable) ● Describe Role of risk factors in causation of CVD	LGIS	MCQ/SAQ

102.	**Prevention Of Ischemic Heart Disease Diseases and Hypertension**	● The learners should be able to integrate lifestyle practices in preventive cardiology	● Describe importance of preventive cardiology. ● Describe different levels of prevention in CVD (primordial, primary, secondary, and tertiary), Hypertension and stroke	LGIS	MCQ/SAQ
103.	**Blindness**	● Recognize the importance of preventive strategies for blindness	● Describe causes of blindness in community. ● Describe epidemiology of blindness ● Describe the role of vitamin A in the prevention of blindness.	LGIS	MCQ/SAQ
104.	**Introduction To Arthropods**	● Relate the significance of arthropods with diseases of public health importance	● Discuss Common arthropod borne diseases. ● Describe the measures to Control arthropods of medical importance. ● Discuss role of Insecticides and their public health importance	LGIS	MCQ/SAQ
105.	**Mosquito**	● Apply mosquito control measures to prevent vector borne diseases	● Enlist mosquito borne diseases. ● Identify different types of mosquitoes. ● Discuss mosquito control measures.	SGD (skill lab)	OSPE
106.	**House Fly**	● Apply fly control measures to prevent vector borne diseases	● Describe life history of House fly. ● Describe health hazards associated with housefly. ● Discuss its control measures	SGD (skill lab)	OSPE
107.	**Snake Bite**	● Recognize the role of personal protection and early management of snake bite.	● Educate the patient about the case of snake bite.	SGD (CBL)	MCQ/SAQ

			● Identification, personal protection, and management of snake bite		
108.	**Cutaneous Leishmaniasis**	● Recognize the role of personal protection and early management of snake bite.	● Describe life history of Sand fly. ● Enlist disease caused by sand fly. ● Discuss cutaneous leishmaniasis and its control measures.	SGD (CBL)	OSPE
109.	**Leprosy**	● Recognize the importance of prevention and control for leprosy.	● Describe epidemiology, of leprosy. ● Describe mode of transmission of leprosy. ● Describe prevention of leprosy	LGIS	MCQ/SAQ
110.	**Rickettsia Infections**	● Apply rickettsia control measures to prevent vector borne diseases	● Describe epidemiology, mode of transmission and prevention of a case of: ● Rickettsia ● Scrub typhus. ● Murine typhus ● Tick typhus ● Q fever	LGIS	MCQ/SAQ
111.	**Fleas, Ticks And Mites**	● Apply fleas, ticks, and mites control measures to prevent vector borne diseases	● Enlist the diseases transmitted by flea, tick, and mites. ● Discuss the prevention of disease caused by fleas, Ticks, and mites.	SGD (skill lab)	OSPE
112.	**Infestations (Scabies & Pediculosis)**	● Apply scabies control measures to prevent infectious diseases	● Describe scabies as community health problem. ● Describe the epidemiology of scabies. ● Describe preventive measures to control pediculosis.	LGIS	MCQ/SAQ

	PSYCHIATRY				
113.	**Mental Health**	● Understand mental health concepts, including recognition of signs and symptoms, appreciation of risk and protective factors	● Discuss importance of mental health. ● Enlist Characteristics of mentally healthy person ● Enlist warning signals and causes of poor mental health. ● Describe crucial points in the life cycle of human beings.	LGIS	MCQ/SAQ
114.	**Mental Health Problems**	● Enhance understanding of mental health disorders and explain preventive measures	● Describe epidemiology of mental health problems in relation to agent, host, and environment perspective. ● Enlist and explain preventive measures. ● Define self-medication and its complications.	LGIS	MCQ/SAQ
115.	**Physician Burnout**	● Encourage self-reflection and proactive self-care practices.	● Define physician burnout. ● Recognize signs and symptoms of burnout in oneself and others. ● Identifying risk factors contributing to burnout. ● Explore coping strategies and resources for managing burnout. ● Promote a culture of wellness and resilience within healthcare settings.	LGIS	MCQ/SAQ
116.	**Drug Addiction**	● Understand the role of healthcare professionals in	● Differentiate between addiction and habituation. ● Describe the phases of drug addiction.	LGIS	MCQ/SAQ

		screening, assessment, and referral for addiction treatment.	● Describe the prevention of drug addiction and rehabilitation measures. ● Describe the social aspects of drug addiction		
117.	**Mental Health of Children**	● The learners would be able to analyse protective factors associated with childhood mental health.	● Discuss types of child abuse ● Describe battered baby syndrome. ● Describe juvenile delinquency.	LGIS	MCQ/SAQ
118.	**Health Education And Communication**	● Develop skills in designing and delivering culturally sensitive and linguistically appropriate health education materials and messages.	● Define health education. ● Enlist the barriers of communication. ● Describe health communication. ● Enlist aims and objectives of health education.	LGIS	MCQ/SAQ
119.	**Health Education And Communication**	● Apply Health education activities in given community	● Apply Health education activities i.e., promotion of breast feeding, maternal health, family planning	SGD (community work)	OSPE
120.	**Approaches And Principles of Health Education**	● Apply health education principles and practices	● Describe approaches to health education. ● Differentiate between health education models. ● Describe the principles of health education. ● Describe practice of health education	LGIS	MCQ/SAQ
121.	**Approaches And Principles of Health Education**	● Apply Health education activities in given community	● Apply Health education activities i.e., nutrition, hygiene, vaccination.	SGD (community work)	OSPE

122.	**Health Planning Cycle**	● Apply systematic approaches and tools for needs assessment, including data collection, analysis, and interpretation.	● Define health planning. ● Understand principles and importance of health planning. ● Discuss elements of planning cycle ● Discuss importance of management and administrative skills for health planning	LGIS	MCQ/SAQ
123.	**Health Budget Planning**	● Understand the principles and concepts of budgeting in healthcare settings.	● Learn about stakeholders and their roles. ● Explore strategies for needs assessment and resource allocation. ● Discuss healthcare organization and quality improvement. ● Understand data collection and monitoring. ● Learn about health policy development and implementation.	LGIS	MCQ/SAQ

MEDICINE & ALLIED CURRICULUM

S.NO	THEME/ TOPIC	LEARNING OUTCOMES	LEARNING OBJECTIVES		INSTRUCTIONAL STRATEGIES	ASSESSMENT TOOLS
INTRODUCTION TO MEDICINE						
1.	**Symptomatology**	The learners would be able to discuss the Symptomatology of following: • CVS disease • Respiratory diseases • GI diseases • CNS diseases • Locomotor diseases • Renal diseases • Common endocrine diseases	• Correlate clinical findings to anatomical structures • Correlate clinical features to etiology in terms of congenital, traumatic, inflammatory, neoplastic or miscellaneous. • Discuss basic pharmacology of drugs being used in a medical unit • List the investigations • Outline management plan	• Take the relevant history • Perform general physical examination • Perform systemic examination of different systems • Show empathy and sympathy while examining the patient • Recognize the right to consent and privacy of the patient • Present findings of the history and examination in logical order verbally as well as in written form	• CBL/ Bed side training/SDL	• MCQ/SEQ/ SAQ/OSPE/Long case/ short case
2.	**Common clinical presentations**	• The learners would be able to investigate patient with: • Fever • Headache • Cyanosis • Jaundice • chest pain • Unconsciousness • Dyspnea • Dyspepsia				

		• Hematemesis • Bleeding per rectum • Malena • Vomiting • Diarrhoea • Fits • Anorexia and weight loss • Oedema • Acute Poisoning • Ascites • Anemia • Critically ill patient • PUO				
NUTRITION/OBESITY/ CHOLESTEROL RELATED & GENETIC DISORDERS						
3.	**Nutrition**	• The learners would be able assess patient with nutrition disorders	• Discuss the following • to Vit B12 deficiency • Folate deficiency • Metabolic syndromes • Propose investigation modalities Treatment options for nutritional deficiencies	• Take the relevant history • Perform general and relevant clinical examination	CBL/ Bed side training/DL	MCQ/SEQ/ SAQ/OSPE/Long case/ short case
4.	**Cholesterol Related Disorders**	• Assess the patient with nutrition disorders • Dyslipidemia	• Discuss the investigation modalities for diagnosis			

			• Discuss the Treatment options available			
5.	**Genetic Disorders**	• Assess the patient with • Hemoglobinopathies • Sickle cell syndromes • Thalassaemias	• Classify hemoglobinopathy hies on the basis of defects in basic structure and formation • Identify characteristic features of each type of hemoglobinopathy • Establish clinical basis of diagnosis of various hemoglobinopat hies and their treatment modalities			

POISONING/ANIMAL BITES						
6	**Animal Bites**	• The learners would be able to diagnosis and management Snake Bite	• Classify Snake bite, based on animal and time duration and type of wound. • List the immediate management and long term management • Discuss the antivenom type and dosing and the criteria of administering antivenom • Enumerate the various complications	• Take history of a patient • Perform clinical examination of a patient with snake bite • Counsel the patients and relatives regarding the correct response at home of the management of snake bite and regarding the immediate presentation of the patient to hospital	CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

7	**Poisoning**	• The learners would be able to diagnose and manage Paracetamol Poisoning	• Discuss the pharmacological effects of Paracetamol. • Diagnose paracetamol poisoning on the basis of clinical presentation • Apply the concepts of mode of reversal to the dosage reversal medication • Enumerate the complication • and route of reversal medication • Enumerate the complication	• Take history of a patient • Perform clinical examination of a patient with poisoning • Counsel the patient to prevent self- harm		MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

INFECTIOUS DISEASES						
8	**Approach to a patient with suspected infection**	• The learners would be able to diagnose **PUO and Sepsis**	• Define • Classify sepsis according to criteria • identify the organ involved and stage of the disease based on Clinical Presentation • Evaluate Diagnostic modalities, treatment options and. • Complications of the disease	• Take history of a patient • Perform clinical examination of a patient with sepsis	Lecture & bedside teaching (Case presentation)/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Propose drug treatment – Supportive/ Emperical/ Definitive			
9	**Diagnosis and management of common infectious/ helminthic diseases**	The learners would be able to diagnose and manage common infectious/ helminthic diseases	Discuss the etiology and enumerate the Symptoms and signs of the disease Typhoid/ Paratyphoid Fevers- • Dengue Hemorrhagic Fever • Rabies • Malaria- • Diphtheria/ Tetanus/ Measles/ Mumps • Varicella: • Chicken pox, • Tuberculosis • **Diarrhea:** acute and chronic • Elaborate Modes of transmission and the causative organism • Identify Susceptible individuals • Diagnose various stages of disease based on clinical and characteristic features.	• Take history of a patient • Perform clinical examination • Establish diagnosis through a focused history and physical exam • Counsel the patients about importance of hygiene and how to prevent contamination of food and by limiting vector and its breeding places.	Lecture & bedside teaching	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Suggest Diagnostic modalities and treatment options. • Propose prevention options including vaccination			
10	**Diagnosis and management of common helminthic diseases**	• The learners would be able to Diagnose and management of common helminthic diseases • Ascariasis • Hookworm • Tapeworm • Hyatid cysts	• Lifecycle • Clinical features • How it causes anemia • Treatment and prevention	• Take history of a patient • Perform clinical examination • Establish diagnosis through a focused history and physical exam • Counsel the patients about importance of hygiene and how to prevent contamination of food and by limiting vector and its breeding places.	Lecture & bedside teaching	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
11	**Mycobacterial**	• The learners shall be able to diagnose and manage Pulmonology and Abdominal TB under respective systems	• Diagnose the patient on the basis of its clinical features and presentation relating to its etiology and pathophysiology • Advise relevant investigations	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation)/CBL/SDL	MCQ/SEQ/ SAQ/OSPE/Long case/ short case

			• Devise management plan • Propose preventive measures and follow up			
12	**Protozoal Infections**	• The learners shall be able to diagnose and manage acute and chronic amoebiasis	• Diagnose the patient on the basis of its clinical features and presentation relating to its etiology and pathophysiology • Advise relevant investigations • Devise management plan • Propose preventive measures and follow up	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation)/CBL/SDL	MCQ/SEQ/ SAQ/OSPE/Long case/ short case
13	**Fungal Infections**	• The learners shall be able to diagnose and manage Common fungal infections already taught in respective modules	• Diagnose the patient on the basis of its clinical features and presentation relating to its etiology and pathophysiology • Advise relevant investigations • Devise management plan	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation)/CBL/SDL	MCQ/SEQ/ SAQ/OSPE/Long case/ short case

			• Propose preventive measures and follow up			
14	**HIV/AIDS**	• The learners shall be able to diagnose Acquired immune deficiency syndrome	• Relate the etiology of AIDS to its Symptoms and signs • identify the modes of transmission • identify individuals susceptible to the disease • Diagnose the disease and its stage on the basis of clinical presentation, and laboratory findings • Evaluate various • Diagnostic modalities and treatment options.	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation)/CBL/SDL	MCQ/SEQ/ SAQ/OSPE/Long case/ short case

15	**Common disease syndromes are caused by different bacteria and their drug therapy.**	• The learners shall be able to diagnose and manage	• Discuss clinical presentation, pathophysiology, diagnosis, and management of • **Gram Positive Infections** • Pharyngitis • Skin infections • Toxic shock syndrome • Pneumonia • Meningitis • **Clostridial Infections** • Botulism • Gas gangrene • **Gram Negative Infections** • Enteric fever\e. coli gastroenteritis • Cholera • Dysentery • **Syphilis** • **Food poisoning** • **Exanthematous diseases** • Measles • Chicken pox • Rubella	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation)/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• **Without exanthema** • Mumps • Infectious mononucleosis • Inflenza • COVID 19 • Dengue • **HIV**			
16	**Common disease syndromes caused by different virus and their drug therapy**	• The learners shall be able to diagnose and manage Common disease syndromes caused by different virus and their drug therapy	• Discuss clinical presentation, pathophysiology, diagnosis and management with immunizations	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation)/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

NEPHROLOGY						
17	**Inflammatory Diseases**	• The learners shall be able to diagnose • Urinary tract • infections • Glomerulonephritis	• Diagnose the patient on the basis of its clinical features and presentation relating to its etiology and pathophysiology • Advise relevant investigations	• Take history of a patient • Perform clinical examination of patient	Lecture &bedside teaching/SDL/CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		• Nephrotic syndrome Nephritic syndrome • Renal TB	• Devise management plan • Propose preventive measures and follow up	• Counsel the patient with renal failure		
18	**Miscellaneous**	• The learners shall be able to diagnose • Renal artery stenosis • Renal tubular Acidosis • Nephrolithiasis • Wilms Tumour	• Diagnose the patient on the basis of its clinical features and presentation relating to its etiology and pathophysiology • Advise relevant investigations • Devise management plan • Propose preventive measures and follow up	• Take history of a patient • Perform clinical examination of patient • Counsel the patient	Lecture &bedside teaching/SDL/CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
19	**Renal failure**	• The learners shall be able to diagnose • AKI (Acute renal failure) • CKD(Chronic renal failure)	• Diagnose the patient on the basis of its clinical features and presentation • relating to its etiology and path physiology Advise relevant investigation Devise management plan and follow up			MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
20	**Treatment**	• The learners shall be able to discuss • Dialysis	• List the different causes requiring dialysis • Enumerate steps of dialysis and its preparation			MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		• Renal Transplant	• List the different causes requiring renal transplant			

CARDIOVASCULAR SYSTEM						
21	**Hypertension**	• The learners shall be able to diagnose and manage Hypertension	• Define diagnostic criteria for hypertension. • Provide pathophysiologic al basis of hypertension. • Propose lifestyle modifications and non-pharmacological options for patients with hypertension. • Diagnose primary hypertension from secondary hypertension • Rationalize the need for achieving recommended BP goals in treatment of hypertension. • Classify antihypertensive drugs • Choose appropriate antihypertensive drug cosiderign their indication for use.	• Take history of a patient with hypertension. • Perform clinical examination of a patient with hypertension.	Lecture & bedside teaching/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Recognize types of hypertension, hypertensive urgency and emergency.			
22	**Coronary Artery Disease** **Ischaemic heart disease**	• The learners shall be able to diagnose and manage • ACS/MI	• Define Acute coronary syndrome (ACS) • Angina • Unstable angina pectoris (UA) • Non-ST segment elevation myocardial infarction(NSTEM I) • ST segment elevation myocardial infarction • Provide pathophysiologic al basis of cardiac ischemia. • Diagnose ACS and MI. • List complications of MI • Analyze the pharmacological management in the treatment of ACS. • Differentiate between male and female signs and symptoms of ACS. • Examine ACS modifiable and non-modifiable risk factors.	• Take history of a patient with ACS/MI • Perform clinical examination of a patient with ACS/MI	Lecture/CBL/S DL/ Bedside training	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Discuss coronary Revascularization procedures and nursing care			
23	**Heart failure**	• The learners shall be able to diagnose Heart failure	• Define Heart failure • Provide pathophysiologic al basis of Heart failure. • Diagnose Heart failure. • List complications of Heart failure • Analyze the pharmacological management in the treatment of Heart failure	• Take history of a patient • Perform clinical examination of a patient with Heart failure	Lecture/SDL/ Bedside training	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
24	**Endocardial diseases**	• The learners shall be able to diagnose and manage Infective endocarditis.	• Identify signs/symptoms of infective endocarditis. • Differentiate between types of IE in relation to its pathophysiology • Diagnose suspected and confirmed IE on the basis of criteria used • Manage infective endocarditis • List its complications	• Take history of a patient with infective endocarditis. • Perform clinical examination of a patient with infective endocarditis.	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

25	**Pericardial diseases**	• The learners shall be able to diagnose and Constrictive pericarditis Pericardial effusion	• Differentiate between types of Pericarditis on the basis of its etiology and pathophysiology • Identity acute and chronic complications of • Pericarditis Identify the clinical manifestation of Pericarditis with diagnostic approach of Pericarditis. • State principles of management of Pericarditis. • List common causes and understand mechanism of pericardial effusion • Recognize early signs of pericardial tamponade • Justify the role of echocardiography in the diagnosis of pericardial effusion	• Take history of a patient with Pericarditis/Peric ardial effusion • Perform clinical examination of a patient with Pericarditis/Pericardial effusion	Lecture & bedside teaching (Case presentation)/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
26	Congenital heart diseases**.**	• The learners shall be able to diagnose • **Cyanotic heart disease**	• Identify common etiologies and risk factors for cyanotic and acyanotic heart defects.	• Take history of a patient with cyanotic and acyanotic heart defects • Perform clinical examination of a patient with cyanotic heart defects	Lecture & bedside teaching (Case presentation)/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		• **Acyanotic heart disease.**	• Diagnose cyanotic and acyanotic heart defects based on clinical manifestations and appropriate diagnostic methods • Explain the pathophysiology, manifestations, diagnosis and management of cyanotic and acyanotic Congenital cardiac anomalies. • Elaborate the pathophysiology, manifestations, diagnosis and management of obstructive congenital anomalies. • Explain the pathophysiology, manifestations, diagnosis and management of cyanotic and acyanotic heart disease. • Identify the implications of cardiac anomalies for respiratory care			

27	**Valvular Heart Disease**	• The learners shall be able to diagnose • Mitral valve. disease Aortic valve disease • Causes of Valvular Heart Disease • Etiology, pathogenesis and hemodynamics of **Valvular Heart Disease** • Clinical finding, treatment of **Valvular Heart Disease** • Assessment, diagnosis and management of the patient with **Valvular Heart** • **Disease** Rheumatic fever- Diagnosis and treatment.	• List causes of Valvular Heart Disease • Describe Etiology, pathogenesis and hemodynamics of mitral/aortic valve disease. • Outline management plan Illustrate clinical features of rheumatic fever • Diagnose Rheumatic fever on the basis of its Pathogenesis • Devise the prevention and treatment plan of rheumatic fever.	• Take history of a patient with valvular disease. • Perform clinical examination of a patient with valvular disease. • Take history of a patient with rheumatic fever • Perform clinical examination of a patient with rheumatic fever	Lecture & bedside teaching (Case presentation)/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

28	**Cardiomyopathies**	• Cardiomyopathies- • Dilated • Hypertrophic Obstructive • Restrictive	• Identify signs/symptoms of **Cardiomyopathies**. • List its relevant investigations, treatment plan and its complications	• Take history of a patient • Perform clinical examination	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
29	**Arrythmias**	• The learners shall be able to diagnose • Paroxysmal supraventricular tachycardia • Atrial flutter and fibrillation • Heart blocks • V-tach and V-fibrillation • Cardiac Arrest	• Define Arrythmias • Provide pathophysiologic al basis of Arrythmias • Diagnose Arrythmias. • List complications of Arrythmias • Analyze the pharmacological management in the treatment of Arrythmias	• Take history of a patient • Perform clinical examination of a patient with Arrythmias	Lecture/SDL/ Bedside training	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
30	ECG.	• The learners shall be able to Review the electrophysiology of the heart as it relates to the ECG • Interpret normal ECGs. • Identify common errors in ECG recording.	• Perform ECG	• Lecture/ CBL and bedside teaching	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case	ECG.

		• Recognize common characteristics of abnormal heart rhythms. • Identify abnormal heart rhythms. • Differentiate between life threatening and • non-life- threatening EKG rhythms • Identify components of the ECG waveform. • Employ a systematic process to evaluate and analyze ECG rhythm strips. • Recognize common ECG dysrhythmias. • List the common causes, consequences and patient management strategies for ECG dysrhythmias. • Provide physiological basis of the rate, rhythm and axis of ECG.				

			• ETT, ECHO, CT- • Angiography and cardiac catheterization-Overview	• Plan patient preparation for ECG • Select clinical protocol • Explain the role of a pre-contrast scan • Outline a contrast administration protocol • Identify access site anatomy, including femoral artery • and vein, • internal jugular vein, and brachial artery • List disease conditions (and surgical correction) involving these anatomic structures • Appreciate atherosclerotic disease of the ileo-femoral system and knowledge of surgical revascularizatio n anatomy, including Aorto-bifemoral graft, Fem-fem bypass, and Fem-pop bypass. • Demonstrate understanding of basic aspects of cardiac ultrasound, including physical principles, instrumentation, cardiovascular anatomy, cardiovascular physiology, and cardiovascular pathophysiology		CBL & bedside teaching

				• . • Give an overview of cardiac CT • angiography acquisition. • List the indications and C/I of cardiac investigations		

PULMONOLOGY						
31	**Respiratory Disorders**	• The learners shall be able to diagnose and manage • Acute Respiratory Infections • Tonsils and adenoids, epiglottitis, croup • Laryngomalacia, Otitis Media • Bronchiolitis, bronchopneumonia • Lobar pneumonia, cystic fibrosis • Asthma • Foreign body	• Diagnose the patient on the basis of its clinical features and presentation relating to its etiology and pathophysiology • Advise relevant investigations • Devise management plan • Propose preventive measures and follow up	• Take history of a patient • Perform clinical examination of patient with pneumonia • Provide emergency treatment	Lecture &bedside teaching/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
32		• The learners shall be able to diagnose and treat • Asthma	• Clinical features • Complications • Grading • Emergency treatment • Long term management	• Take history of a patient • Perform clinical examination of patient with pneumonia • Provide emergency treatment	Lecture &bedside teaching/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

33		• The learners shall be able to diagnose COPD	• Chronic bronchitis • Emphysema • Differences • Clinical features • Investigations	• Take history of a patient • Perform clinical examination of patient with pneumonia • Provide emergency treatment	Lecture &bedside teaching/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
34		• The learners shall be able to diagnose Pneumonia	• Community acquired • Etiology • Clinical features • Treatment • Hospital acquired	• Take history of a patient • Perform clinical examination of patient with pneumonia • Provide emergency treatment	Lecture &bedside teaching/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
35		• The learners shall be able to diagnose and manage Tuberculosis	• Types • Causative agents • Clinical features • Investigations • Primary vs post primary • Cultures • Treatment • Non complicating cases • Multi-drug resistant TB	• Take history of a patient • Perform clinical examination of patient with pneumonia • Provide emergency treatment	Lecture &bedside teaching/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
36		• The learners shall be able to diagnose diffuse parenchymal lung disease	• Interstitial pneumonias • Extrinsic allergic alveolitis	• Take history of a patient	Lecture &bedside teaching/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Sarcoidosis	• Perform clinical examination of patient with pneumonia • Provide emergency treatment		
37	**Respiratory Emergencies**	• The learners shall be able to diagnose • Adult respiratory distress syndrome. Pulmonary thromboembolism/ Acute cor pulmonale.	• Diagnose the patient on the basis of its clinical features and presentation relating to its etiology and pathophysiology • Advise relevant investigations • Devise management plan • Propose preventive measures and follow up	• Take history of a patient • Perform clinical examination of patient with pneumonia • Provide emergency treatment	Lecture &bedside teaching/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
		• The learners shall be able to diagnose and manage Primary pulmonary hypertension	• Diagnose the patient on the basis of its clinical features and presentation relating to its etiology and pathophysiology • Advise relevant investigations • Devise management plan • Propose preventive measures and follow up	• Take history of a patient • Perform clinical examination of patient with pneumonia • Provide emergency treatment	Lecture &bedside teaching/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		• The learners shall be able to diagnose Diseases of Pleura	• Diagnose the patient on the basis of its clinical features and presentation relating to its etiology and pathophysiology • Advise relevant investigations • Devise management plan • Propose preventive measures and follow up	• Take history of a patient • Perform clinical examination of patient with pneumonia • Provide emergency treatment	Lecture &bedside teaching/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
38		• The learners shall be able to diagnose Occupational Lung disease	• Diagnose the patient on the basis of its clinical features and presentation relating to its etiology and pathophysiology • Advise relevant investigations • Devise management plan • Propose preventive measures and follow up	• Take history of a patient • Perform clinical examination of patient with pneumonia • Provide emergency treatment	Lecture &bedside teaching/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
39		• The learners shall be able to diagnose and manage Respiratory Failure Type I and II	• Define diagnostic criteria of respiratory failure of varied etiology.	• Take history of a patient • Perform clinical examination of patient with respiratory failure	Lecture & bedside teaching (Case presentation) /SDL/CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Differentiate between acute, chronic, and postoperative respiratory failure on the basis of pathophysiology • Recognize the signs and symptoms of respiratory failure. • Apply alveolar gas equation to evaluate respiratory failure. • Recognize the • changes in blood gases that accompany respiratory failure and other investigations • Review major treatment strategies for respiratory failure and their monitoring.			
40	**Tumours**	• The learners shall be able to diagnose • Carcinoma Lung • Etiology and risk factors for development of ca lung	• Elaborate plan for diagnosis of common types of lung cancers • based on clinical presentations and • Radiological appearance.	• Take history of a patient • Perform clinical examination of patient with Ca lung	Lecture and bedside teaching	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		• Pathophysiology and classification of lung cancers alternate treatment modalities like stenting and laser therapy	• Describe the grading and staging systems for lung Carcinomas • Propose plan for chemotherapy, surgical interventions and radiotherapy for management of lung carcinomas • Suggest alternate treatment modalities like stenting and laser therapy • Evaluate prognosis and need for palliative care			
41	**Miscellaneous**	• The learners shall be able to diagnose • Pneumothorax: Causes/ Diagnosis/ Management	• Classify pneumothorax based on etiological factors • Provide Pathophysiologic al basis of clinical manifestations and differential diagnosis of pneumothorax. • Develop plan for diagnosing and managing a patient of pneumothorax, including emergency treatment	• Take history of a patient • Perform clinical examination of patient with neumothorax	Lecture & bedside teaching (Case presentation). /SDL	

			• Identify measures for prevention of recurrence			
42		• The learners shall be able to diagnose and manage Bronchiectasis	• Analyze the etiology and pathogenesis of bronchiectasis • Diagnose bronchiectasis based on clinical features radiological and lab investigations • Generate Differential diagnosis of bronchiectasis • Develop plan for diagnosing and managing a patient of bronchiectasis, including drug therapy, surgical intervention and physiotherapy • Assess prognosis required measures for prevention	• Take history of a patient • Perform clinical examination of patient with bronchiectasis	Lecture & bedside teaching (Case presentation)/SDL	MCQ/SEQ/ SAQ/OSPE/Long case/ short case
43		• The learners shall be able to diagnose Pulmonary Embolism	• Elaborate, epidemiology and risk factors and preventive measures for pulmonary embolism • Recognize the clinical features and presenting symptoms of pulmonary embolism	• Take history of a patient • Perform clinical examination of patient with pulmonary embolism	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/Long case/ short case

			• Evaluate various modalities of investigations for diagnosis and differential diagnosis • Develop plan for pharmacological and surgical management of a patient with pulmonary embolism			
44		• The learners shall be able to diagnose Pleural effusion types & causes	• Apply basic concepts of important anatomic features and physiologic function of the visceral and parietal pleural membranes to explain occurrence of • pleural effusions Differentiate between transudative and exudative effusio ns based on etiology, pathophysiology and risk factors. • Diagnose effusion based on clinical features and investigations. • Manage effusion appropriate to the underlying cause	• Take history of a patient • Perform clinical examination of patient with pleural effusion.	CBL & bedside teaching	

45	**Examination of Chest**	• The learners shall be able to diagnose chest Auscultation	• Justify the significance of chest auscultation in clinical examination • Apply basic concepts of anatomy and physiology of heart and lungs and related structures in relation to auscultation • Correlate biological changes of • the aging process to the altered physical findings on chest and lung examination	• Perform the correct procedure for carrying out chest auscultation • recognize normal breath sounds • identify Adventitious lung sounds: Wheezes, Crackles, Squeak, Pleural rub and Stridor.	Lecture and bed side teaching	MCQ/SEQ/ SAQ/OSPE/Long case/ short case
46	**Investigations**	• The learners shall be able to diagnose Chest X- ray Arterial blood Gases	• Identify anatomical features of heart • and lungs on a chest x-ray • interpret Arterial Blood Gases findings • Learn the concept of atelectasis and the ability to recognize it on a chest x-ray • Justify reasons that make lung cancer unresectable	• Appreciate the appearance of pulmonary • edema and the differences between cardiogenic and noncardiogenic causes • Recognize atelectasis on a chest x-ray • Appreciate the difference findings of atelectasis and pneumonia	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/Long case/short case

				• Recognize pleural effusions and pneumothorax appear on CXR • Recognize the signs of COPD • Recognize the signs of a benign pulmonary nodule • Recognize the signs of COPD • Recognize the signs of a benign pulmonary nodule		
47	**Therapy**	• The learners shall be able to diagnose Oxygen Therapy: Various means & implications	• Differentiate between ventilation, internal respiration, and external respiration. • Identify the major muscles of respiration. • Identify factors affecting external and internal • respiration. Define hypoxemia and hypoxia. • Identify the indications dangers, problems and contraindications for oxygen therapy	•	CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• elaborate preventive measures for injury when working with oxygen. • Differentiate between low-flow and high-flow oxygen delivery systems. • Identify different oxygen delivery devices. • Evaluate physiological basis of pulse oximetry, its. indications and limitations			
		• The learners shall be able to discuss • Ventilator Techniques different modes and terms used in mechanical ventilation such as IPPV, PCV, PEEP, CPAP, BIPAP, NIPPV etc	• Emphasize primary objective of airway maintenance • list the indications for mechanical ventilation(MV) • Identify ventilation strategies. • alternative modes of MV and the basic • principles of non-invasive ventilation		CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
ENDOCRINOLOGY						

48	**Disorders of Pituitary gland and Hypothalamus**	• The learners shall be able to diagnose Acromegaly/Growth hormone deficiency/	• Define criteria for diagnosing acromegaly, clinical presentation of acromegaly/ growth hormone deficiency. • Identify pathophysiology of central precocious puberty, acromegaly and growth hormone deficiency. • Discuss functions of anterior and posterior pituitary hormones and hypothalamic hormones. • Suggest investigations for diagnosis by oral • glucose tolerance test and GH level. • Propose surgical , medical and radiotherapy Management	• Take history of a patient • Perform clinical examination of a patient with acromegaly	Lecture & bedside teaching (Case presentation)/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
		• The learners shall be able to diagnose and formulate a management plan • Diabetes insipidus/SIADH	• Correlate pathophysiology of diabetes insipidus/SIADH to its clinical manifestations and	• Take history of a patient • Perform clinical examination of a patient with diabetes insipidus	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Relate the effects Devise plan for diagnosis and clinical management of SIADH/diabetes insipidus.			
		• The learners shall be able to diagnose and formulate a management plan for Hypopituitrism/Addison's disease.	• Correlate pathophysiologic al basis of various etiological factors in to clinical manifestations of the disease • Determine diagnostic criteria for hypopituitarism/ acromegaly. • Outline the management of the disease.	• Take history of a patient • Perform clinical examination of a patient with Addison's disease	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
		• The learners shall be able to diagnose and formulate a management plan for Acute Addisonian crisis	• Outline the management of the disease	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
49	**Disorders of thyroid gland**	• The learners shall be able to diagnose and formulate a management plan for Hyperthyroidism	• Correlate pathophysiological basis of various	• Take history of a patient	Lecture & bedside teaching	MCQ/SEQ/ SAQ/OSPE/

		•	• etiological factors to clinical manifestations of hypothyroidism • Devise plan for diagnosis, drug therapy, radioactive iodine and surgeryical management of hyperthyroidism	• Perform clinical examination of a patient with hyperthyroidism	(Case presentation)	Long case/ short case
		• The learners shall be able to diagnose and formulate a management plan for Hypothyroidism.	• Correlate pathophysiologi cal basis of various etiological factors to clinical manifestations of hypothyroidism. • Classify hypothyroidism. • Interpret investigations for diagnosis including thyroid function tests. • Outline management including drug therapy and regular follow up.	• Take history of a patient • Perform clinical examination of a patient with hypothyroidism	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
50	**Disorders of Parathyroid gland**	• The learners shall be able to diagnose and formulate a management plan for Parathyroid disorders.	• Identify the hormones produced by the parathyroid and their functions.	• Take history of a patient • Perform clinical examination of a patient with parathyroid disorder	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Correlate pathophysiologic al basis of various etiological factors to clinical manifestations of parathyroid endocrine disorder. • Devise plan for diagnosis and clinical management of each parathyroid disorder.			
51	**Disorders of Adrenal Gland**	• The learners shall be able to diagnose and formulate a management plan for • Cushing Syndrome • Pheochromocyto ma • Aldosterone & related conditions	• Justify • abnormalities in the hormones produced by the adrenal glands and their functions resulting in Cushing Syndrome / Pheochromocyto ma • Aldosterone & related conditions • Propose management of Cushing Syndrome after establishing clinical diagnosis.	• Take history of a patient • Perform clinical examination of a patient with Cushing Syndrome	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
		• The learners shall be able to diagnose and formulate a management plan for MEN-**I and II**	• Outline management plan of MEN-I and II	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

DIABETES MELLITUS						
52	**Diabetes mellitus**	• The learners shall be able to diagnose and formulate a management plan for • Diabetes mellitus type -1 • Diabetes mellitus type-2 • Acute and Chronic complication of Diabetes Mellitus- DKA/HHS/Hypoglycemia	• Differentiate between type 1 and type 2 diabetes on the basis of pathophysiology, etiology, • Prevalence and incidence, risk factors, manifestations and complications. • Identify abnormalities in investigations for blood sugar levels including HbA1c • Propose diagnostic tests used for screening, diagnosis and monitoring of diabetes mellitus. • Emphasize implications of insulin and oral hypoglycemic agents used to treat patients of DM-1& II. • Identify maternal and fetal risks or complications associated with diabetes in pregnancy.	• Take history of a patient • Perform clinical examination of a patient with diabetes mellitus	Lecture & bedside teaching (Case presentation)/SDL	MCQ/SEQ/ SAQ/OSPE/Long case/ short case

			• Identify the warning signs of insulin-dependent and non-insulin- dependent diabetes mellitus. • Compare prevalence of diabetes mellitus among different ethnic groups. • Identify risk factors for developing diabetes and its complications. • Devise Management plan for acute Complication of Diabetes Mellitus- DKA/HHS/Hypoglycemia • Describe the major microvascular, macrovascular and neuropathic complications of diabetes and self- care behavior that are important in their prevention.			
53	**Cholesterol Related Disorders**	• The learners shall be able to diagnose and formulate a management plan for Dyslipidemia	• Assess the patient with nutrition disorders			

			• Discuss the investigation modalities for diagnosis • Discuss the treatment options available			

GASTROENTEROLOGY						
54	**Diseases of pharynx and esophagus**	• The learners shall be able to diagnose and formulate a management plan for • **GERD** • **Esophagitis and barret's esophagus** • **Vomiting** • **Hematemesis** • **CA Esophagus** • **Achalasia**	• Identify the causes • Generate differential diagnosis of establish definitive diagnosis based on laboratory investigations • Develop treatment plan • Evaluate prognosis of the patient	• Take history of a patient • Perform clinical examination of patient with dyspepsia • Counseling of patients with GERD & Peptic ulcer about the outcomes of diseases and how to prevent them	Lecture & bedside teaching (case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
55	**Diseases of stomach and duodenum**	• The learners shall be able to diagnose and formulate a management plan for • **Gastritis** • **Peptic ulcer disease** • **H Pylori** • **CA stomach**	• Identify the causes • Generate differential diagnosis of • Establish definitive diagnosis based on laboratory investigations	• Take history of a patient • Perform clinical examination of patient with dyspepsia	Lecture & bedside teaching (case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Develop treatment plan • Evaluate prognosis of the patient	• Counseling of patients with GERD & Peptic ulcer about the outcomes of diseases and how to prevent them		
56		• The learners shall be able to diagnose and formulate a management plan for **Gastrointestinal Bleeding**	• Differentiate between upper and lower GI bleeding • Assess the patient on the basis of signs and symptoms • Outline the management plan • Outline the risk factors for death in Upper GI Bleeding • Assess the Prognosis	• Take history of a patient • Perform clinical examination of patient.	Lecture & bedside teaching (Case presentation) /CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
57	**Diseases of large/ small intestine**	• The learners shall be able to diagnose and formulate a management plan for • **Acute Diarrhea** • Acute and chronic diarrhea • Infective/ Osmotic • Inflammatory Bowel Disease • Ulcerative colitis	• Differentiate between Acute and Chronic Diarrhoea on the basis of its etiology • Outline the risk factors for Acute and Chronic Diarrhoea	• Take history of a patient • Perform clinical examination of patient with diarrhea	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		• Crohn's disease • Irritable Bowel Syndrome • Clinical features, signs and symptom Management • Malabsorption • Sprue • Tropical Coeliac Disease	• Assess the patient on the basis of signs and symptoms • Outline the investigations and management plan • Discuss the Prognosis			
58	**Tumours**	The learners shall be able to diagnose and formulate a management plan for • Upper GI Malignancy • Lower GI Malignancy	• Classify Upper and lower GI tumours • Differentiate between benign and malignant tumours on the basis of its etiology and clinical features • List risk factors • Outline investigations and management of tumours	• Take history of a patient • Perform clinical examination of patient with GI tumours	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
GASTROINTESTINAL AND LIVER DISORDERS						
59	**Chronic Liver disease**	• The learners shall be able to diagnose and formulate a management plan for • Ascites and Management • Cirrhosis of Liver	• Elaborate the causes of Ascites • Outline the management and prognosis	• Take history of a patient • Perform clinical examination of patient with CLD	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

				• Counsel a cirrhotic patient		
			• Describe the causes, pathology and clinical features of hepatic cirrhosis • Explain the pathogenic mechanism of Hepatic Fibrosis • Discuss the management and prognosis of the condition			
		The learners shall be able to diagnose and formulate a management plan for • Portal Hypertension/ Sequalae • Aetiology and pathogenesis • Clinical features • Investigations and management Complications of ortal Hypertension	• Classifiy Portal Hypertension according to site of vascular obstruction • Evaluate Management and prognosis of the condition			

		• Hepatic Encephalopathy	• Correlate the causes and pathology of hepatic encephalopathy to its clinical features • Outline the management and prognosis			
60	**Hepatitis**	The learners shall be able to diagnose and formulate a management plan for • Hepatitis B and C Infections • Other Forms of Hepatitis (A, D and E) • Autoimmune Hepatitis	• Classify viral Hepatitis • Differentiate between different types of Hepatitis • Interpret investigations for diagnosis of Hepatitis B and C • Discuss their modes of transmission • Outline the treatment plan and prognosis • List the complications	• Take history of a patient • Perform clinical examination of patient with hepatitis	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
61	**Pancreatitis**	The learners shall be able to diagnose and formulate a management plan for • Acute Pancreatitis Chronic Pancreatitis	• Elaborate the pathophysiology of Acute and Chronic Pancreatitis	• Take history of a patient	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Diagnose the patient on the basis of Signs, symptoms and investigations • Outline the treatment plan • List its complications	• Perform clinical examination of patient with pancreatitis		
62	**Investigation & Imaging of GI, Liver and Pancreatic disorder**	The learners shall be able to diagnose and formulate a management plan for pancreatic disorder	• Interpret investigations for diagnosis of GI, Liver and Pancreatic disorder		Lecture & bedside teaching	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
63	• **Other hepatobiliary/pancreatic disorders**	The learners shall be able to diagnose and formulate a management plan for • Hemochromatosis • Wilson Diseases • SBP/HRS • Metabolic Diseases of the liver • Liver abscess • HCC • CA pancreas/ Ampullary Carcinoma • Abdominal tuberculosis • Dysphagia and its evaluation	• Diagnose the patient on the basis of Signs, symptoms and investigations • Outline the Treatment plan	• Take history of a patient • Perform clinical examination of patient	Lecture & bedside teaching (Case presentati on)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

HAEMATOLOGY AND TRANSFUSION MEDICINE						
64	**Anemias Pancytopenia clinical approach**	The learners shall be able to diagnose and formulate a management plan for • Iron deficiency • Megaloblastic B- 12 deficiency • Folic acid deficiency • Anaemia of chronic disorder • Haemolytic anaemia • Hereditary Acquired • Aplastic anemia • Aetiology and presentation • Causes and Management	• Differentiate between various types of anemia based on etiology, underlying pathology, symptoms and signs • Evaluate the patient on the basis of signs and symptoms and differential diagnosis • Interpret appropriately ordered laboratory investigation to reach a final diagnosis • Devise plan for treatment of disease and complications of the condition if it remains untreated • Monitortreatment of anemia	• Take history of a patient • Perform clinical examination of a patient with anemia	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

65	**Transfusion**	The learners shall be able to diagnose and formulate a management plan for • Transfusion – Blood groups and blood transfusion. • Reactions & Management	• Elaborate the generic prerequisites and modes of transfusion. • Correlate the pathophysiology of blood reactions to the Requirement & safety protocol • Follow through step by step management of different types of transfusion reactions	• Follow the protocol of blood transfusion	CBL/Lecture & bedside teaching (Case presentation)/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
66	**Transfusion**	The learners shall be able to diagnose and formulate a management plan for • Transfusion – Blood groups and blood transfusion. • Reactions and Management	• Elaborate the generic prerequisites and modes of transfusion. • Correlate the pathophysiology of blood 93eaction to the Requirement & safety protocol • Follow through step by step management of different types of transfusion reactions	• Follow the protocol of blood transfusion	CBL/Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

67	**Haemoglobinop athies**. Also included in genetic disorders	The learners shall be able to diagnose and formulate a management plan for • Sickle cell syndromes • Thalassaemias	• Classify hemoglobinopat hies based on abnormalities in structure and formation of Hb. • Differentiate between different hemoglobinopat hies based on characteristic features, signs and symptoms treatment modalities, and diagnostic approach.	• Take history of a patient • Perform clinical examination of a patient with hemoglobinopat hies	Lecture & bedside teaching (Case presentation)/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
68	**Bleeding Disorders**	The learners shall be able to diagnose and formulate a management plan for • ITP/ Bleeding Disorders/ DIC	• Correlate abnormalities inphysiology of coagulation with. etiology, • Symptoms and signs of ITP/ • Bleeding Disorders/ DIC • Devise plan for investigating, diagnosing and treating Bleeding disorders and their complications.	• Take history of a patient • Perform clinical examination of a patient with Bleeding disorders	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

RHEUMATOLOGY/BONES						
69	**Inflammation of joints**	• The learners shall be able to diagnose and formulate a management plan for **Rheumatoid arthritis**	• Discuss etiology, Symptoms and signs of the disease • Diagnose the patient on the basis of presenting complaints and clinical examination • Interpret relevant Investigations and laboratory findings. • Recognize complications and their management options	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
		• The learners shall be able to diagnose and formulate a management plan for **Osteoarthritis**	• Diagnose the patient on the basis of presenting complaints and clinical examination • Determine causes of osteoarthritis established through Investigations and laboratory findings. • Manage complications of the disease	• Take history of a patient with joint disease • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /CBL/SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		• The learners shall be able to diagnose and formulate a management plan for **Seronegative Poly Arthritis** • **(Crystal arthritis)**	• Define diagnostic criteria for Seronegative Poly Arthritis	• Take history of a patient • Perform clinical examination of a patient with Poly Arthritides	Lecture & bedside teaching (Case presentation)/ CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
			• Correlate etiology of the disease to its presentation. • Diagnose the patient on the basis of presenting complaints and clinical examination • Propose appropriate Investigations and laboratory findings to establish diagnosis. • Manage complications of the disease			
		• The learners shall be able to diagnose and formulate a management plan for **Arthritis/ ankylosing spondylitis**	• Diagnose the disease on the basis of clinical Presentation and investigations.	• Take history of a patient • Perform clinical examination of a patient with Arthritis/ ankylosing spondylitis	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Correlate clinical signs with radiological findings. • Suggest appropriate diagnostic modalities and treatment options.			
		• The learners shall be able to diagnose and formulate a management plan for **Gout**	• Give pathological basis of Gout • Differentiate between acute and chronic disease based on presentation, • Investigations and treatment options. • Diagnose the disease based on clinical presentation and investigations. • Discuss the association of disease with other diseases • Manage the complications of disease	• Take history of a patient • Perform clinical examination of a patient with gout	Lecture & bedside teaching (Case presentation)/CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		• The learners shall be able to diagnose and formulate a management plan for **Polymalgia rheumatica**	• Define Polymalgia rheumatica • Develop therapeutic plan for the disease after diagnosing based on clinical presentation of various stages, and investigations diagnosing	• Take history of a patient • Perform clinical examination of a patient with Polymalgiar heumatica	Lecture & bedside teaching (Case presentation) /CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
70	**Autoimmune Rheumatic Diseases**	• The learners shall be able to diagnose and formulate a management plan for Dermatomycosis/Polymyosities • Scleroderma/Ra ynaud Phenomenon and Syndrome • Systemic Sclerosis • Sjorgen syndrome/Kerat oconjuncitives • Sicca • RA • SLE	• Define diagnostic criteria Seronegative SLE • Suggest therapeutic options and investigations after establishing diagnosis based on etiology, clinical Presentation andinvestigations • Manage complications.	• Take history of a patient • Perform clinical examination of a patient with SLE	Lecture & bedside teaching (Case presentation) /CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

71	**Systemic Inflammatory Vascuitis**	The learners shall be able to diagnose and formulate a management plan for • Anti neutrophil cystoplasmic antibodies • ANCA	• Suggest therapeutic options and investigations after establishing diagnosis based on etiology, clinical Presentation and investigations	• Take history of a patient Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation)/CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case case
72	**Osteoporosis**	The learners shall be able to diagnose for Osteoporosis	• Suggest therapeutic options and investigations after establishing diagnosis based on etiology, clinical Presentation and investigations	• Take history of a patient Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation)/CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case case
73	**Rickets and Osteomalacia**	The learners shall be able to diagnose for rickets	• Suggest therapeutic options and investigations after establishing diagnosis based on etiology, clinical Presentation and investigations	• Take history of a patient Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation)/CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case case

NEUROLOGY/MUSCLE DISORDERS						
74	**Headache**	The learners shall be able to diagnose and formulate a management plan for • Differential diagnosis of headache, Migraine, cluster, tension,	• Assess the patient with headache. • Discuss the investigation modalities for diagnosis • Elaborate pharmacologic treatment for Acute condition and Prophylaxis	• Take history of a patient • Perform clinical examination of patient with	Lecture and bed side teaching/CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		analgesia- overuse, neuralgias, idiopathic intracranial hypertension, temporal arteritis • Presentations and clinical features of various types of headache especially migraine • Aetiologies & Pathogenesis	• Migraine. • Suggest primary drugs used to prevent nausea related to migraine. • Develop management plan for complications of migraine including lifestyle modifications	headache		
75	**Unconsciousness and coma**	The learners shall be able to diagnose and formulate a management plan for an Unconscious Patient	• Generate differential diagnosis of the unconscious patient • Identify signs and investigations to determine the cause • Justify the utility of Glasgow Coma Scale (GCS) • Outline the emergency management of patient	• Take history of a patient • Perform clinical examination of unconscious patient • Manage an unconscious patient	Lecture and bed side teaching/CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
76	**Movements Disorders**	• The learners shall be able to diagnose and formulate a management plan for Parkinson's disease, essential tremor, Huntington's disease, tics, medication-induced dyskinesia	• Review the gait cycle • Classify gait disorders • Recognize common clinical features of gait disorders • Differentiate between clinical and laboratory features of essential tremor dystonic tremor, cerebellar tremor, parkinsonian tremor, and	• Take history of a patient • Perform clinical examination of patient with gait disorders	Lecture and bed side teaching/CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		• Distinguishing features of essential tremor from dystonic tremor, cerebellar tremor, parkinsonian tremor, and other tremor disorders • Pharmacological treatment for relief of symptoms and its complications	other tremor disorders • Recognize the spectrum of movement disorders, both hypo- and • hyperkineticGenerate differential diagnosis of PD • Describe the prevalence and etiology of Parkinson's disease • Recognize the clinical features and presentations of movement disorders • Outline the workup and management of patients with gait disorders			
		• The learners shall be able to diagnose and formulate a management plan for Myasthenia Gravis Muscle Dystrophy	• Provide pathophysiologic al basis of Myasthenia gravis. • Differentiate between Myasthenia and Dystrophy. • Give genetic basis of muscular dystrophy • Identify clinical features of Myasthenia Gravis • Diagnose various stages on time based characteristic features. • Develop management plan for Myasthenia Gravis			
77	**Spinal cord disorders.**	• The learners shall be able to diagnose and formulate a management plan for	• Assess the patient with Myelitis • Suggest investigation modalities for diagnosis	• Take history of a patient • Perform clinical examination of	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		Myelitis	• Evaluate treatment options for Myelitis	patient	/CBL/SDL	
78	**Cerebrovascular Disease**	The learners shall be able to diagnose and formulate a management plan for Stroke • Transient ischemic attack (TIA)	• Diagnosis of stroke • List the complications of stroke • Identify various prevention strategies pertaining to stroke • Outline management of ischemic and hemorrhagic stroke	• Take history of a patient • Perform clinical examination of patient with stroke • Counsel the patient with stroke about physiotherapy	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
79	**Epilepsy**	The learners shall be able to diagnose and formulate a management plan for • Epilepsy • Various seizure types including adult vs pediatric seizures • Status Epilepticus • Epilepsy Management Issues • Medically refractory epilepsy and immunotherapy • Anticonvulsant s in Specific Patient Populations such as Neonates, Children,	• Differentiate between different types of seizures including epilepsy • Explain pathophysiologic al basis of epilepsy • Identify the cause and trigger factors associated • Recognize the clinical features of seizures • Outline the management of Status Epilepticus • List the investigation of a patient with suspected epilepsy • Outline the acute and long term management of seizures, both medical and surgical • Evaluate the considerations in special populations such as	• Take history of a patien • Perform clinical examination of patient with seizures	Lecture and bed side teaching/CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		Elderly, Women on contraceptive agents, Pregnant women, patients with hepatic or renal insufficiency, (HIV)–infected patients • Seizure relapse after discontinuation of drug therapy	pregnancy and old age • illustrate the Goals of management of epilepsy			
80	**Infections of CNS**	The learners shall be able to diagnose and formulate a management plan for • Meningitis/ Encephalitis/ Brain Abscess	• Differentiate among the various infections of CNS based on etiologies and clinical features and presentations • Outline the modalities for investigation and medical management of CNS infections • Identify Complications their treatment • Advocate preventive strategies for complications	• Take history of a patient • Perform clinical examination of patient with infections of CNS	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
81	**Other diseases**	The learners shall be able to diagnose and formulate a management plan for Multiple Sclerosis	• Provide pathophysiologic basis of the effects of Multiple Sclerosis (MS) on the body. • Diagnose MS on the basis of to Clinical features • Develop plan for the workup and management • Includingtherapeutic options, of a patient with MS • Propose plan for treatment of	• Take history of a patient • Perform clinical examination of patient with MS • Counsel the patient about prognosis of MS	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			acute relapse, prevention of future relapses, treatment of complications and management of disability. • Provide pathophysiologic basis of the poor prognosis of MS			
82	**Motor Neuron Disease/ Neuropathies/ Myopathies**	The learners shall be able to diagnose and formulate a management plan for • Amyotrophic Lateral Sclerosis (ALS), Guillain– Barré Syndrome (GBS), Post-polio Syndrome (PPS), neuropathies, and brachial plexus injuries • lower motor neuron disease • upper motor neuron disease • Investigations and general management of these patient • Role of Plasma exchange or IV immunoglobulin therapy	• Correlate the phenomenon of degeneration and regeneration nerve and muscle and patterns of involvement in motor neuron disease • Describe the demographic, risk factors, etiology, pathophysiology, diagnosis, general progression and prognosis of Amyotrophic Lateral Sclerosis (ALS), Guillain– Barré Syndrome (GBS), Post-polio Syndrome (PPS), neuropathies, and brachial plexus injuries • Elaborate the pathophysiology,incidence, signs and symptoms, and typical progression of Guillain-Barre syndrome • Differentiate among lower motor neuron and upper motor neuron disease based on signs and symptoms and pathology • Describe the general investigations and interpretation of nerve conduction studies, including motor and sensory studies of peripheral	• Take history of a patient Perform clinical examination of patient with motor neuron diseases	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			nerves and clinical electromyograph y • Discuss the differential diagnosis, management and prognosis of these diseases			
83	**Neurodegenerative diseases**	The learners shall be able to diagnose and formulate a management plan for Neurodegenerative cognitive impairment, Alzheimer's disease (AD) and related dementias	• Distinguish neurodegenerati ve cognitive impairment, Alzheimer's disease (AD) and related dementias from age-related normal cognitive changes. • Apply standard diagnostic criteria for mild cognitive impairment, dementia, and Alzheimer's disease • Apply standard guidelines for the laboratory investigation of patients with dementia or suspected dementia. • Relate the etiology and risk factors of conditions leading to dementia to its pathophysiology and progression • Discuss the short and long term management of disease. • Review the standard pharmacotherap y for cognitive deficits experienced by patients with mild cognitive impairment & dementia. • Describe non- pharmacological interventions for management of behavioral disturbances	• Take history of a patient • Perform clinical examination of patient with dementia	Lecture & bedside teaching (Case presentation)	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Ensuring compassionate Palliative & End- of-Life Care for People with dementia			

PSYCHIATRY & MENTAL HEALTH						
84	**Introduction to Psychiatry**	The learners will be able to diagnose and formulate a management plan for Phenomenology	• Explain Phenomenology and Psychiatry disorders • Classify Psychiatry disorders • Elaborate epidemiological and etiological basis of psychiatric disorders • Outline diagnostic plan for Psychiatry disorders		Lecture & bedside teaching (Case presentation) / SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

85	**Organic mental disorders**	The learners will be able to diagnose and formulate a management plan for • Dementia • Delirium	• Diagnose dementia and delirium based on presentation using bio-psycho-social model • Devise a management plan using bio-psycho-social model	• Take history of a patient • Perform clinical examination including mental state • Diagnose and manage as per bio-psycho-social model	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

86	**Mental and behavioural disorders due to psychoactive substance use**	The learners will be able to diagnose and formulate a management plan for Mental and Behavioural disorders due to the use of psychoactive substances.	• Elaborate the different groups of drugs of abuse and misuse • Presentation of drug abuse and misuse • Suggest the laboratory investigations needed for diagnosis • Discuss comorbid psychiatric disorders with drug abuse • Management and prognosis of substance abuse disorders	• Take history of a patient • Perform clinical examination including mental state • Diagnose and manage as per bio-psycho-social model	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
87	**Schizophrenia, schizotypal, delusional & non-mood psychotic disorders**	The learners will be able to diagnose and formulate a management plan for Schizophrenia, schizotypal & delusional disorder.	• Diagnose Schizophrenia schizotypal & delusional disorder	• Take history of a patient • Perform clinical examination including mental state	Lecture & bedside teaching (Case presentation) /SDL/ CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Devise a plan for treatment of disease, side effects of the treatment and its withdrawal. • Assess prognosis of the disease	• Diagnose and manage as per bi psycho-social model		

88	**Mood disorders**	The learners will be able to diagnose and formulate a management plan for
		• Major depressive episodes
		  • Recurrent depressive disorder
		  • Hypomania/ mania
		  • Bipolar mood disorder
		  • Persistent mood disorders (dysthymia and cyclothymia)
			• Know the different presentations of mood disorders
			• Diagnose mood Disorders
			• Discuss its Management and prognosis
				• Take history of a patient
				• Perform clinical examination including mental state
				• Diagnose and manage as per bio-psycho-social model
					Lecture & bedside teaching (Case presentation) /SDL/CBL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

89	**Neurotic disorders**	The learners will be able to diagnose and formulate a management plan for	• Classify neurotic Disorders	• Take history of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		Neurotic Disorders • Phobic disorders • Panic disorders • Generalised anxiety disorders • Obsessive compulsive disorders • Dissociative disorders	• Discuss presentation of Neurotic disorders • Diagnose Neurotic disorders • Discuss the management of Neurotic disorders	• Perform clinical examination including mental state • Diagnose and manage as per bio-psycho-social model		
90	**Stress related disorders**	The learners will be able to diagnose and formulate a management plan for • Acute stress reaction • Post traumatic stress disorder • Adjustment disorder	• Classify Stress related disorders • Discuss presentation of Stress related disorders • Diagnose Stress related disorders • Discuss the management of Stress related disorders	• Take history of a patient • Perform clinical examination including mental state • Diagnose and manage as per bio-psycho-social model	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
91	**Somatoform disorders**	The learners will be able to diagnose and formulate a management plan for • Somatization disorder • hypochondriasis	• Classify Somatoform disorders	• Take history of a patient • Perform clinical examination including mental state	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Discuss presentation of Somatoform disorders • Diagnose Somatoform disorders • Discuss the management of Somatoform disorders	• Diagnose and manage as per bio-psycho-social model		
92	**Behavioural syndromes associated with physiological disturbances and physical factors**	The learners will be able to diagnose and formulate a management plan for • Eating disorders • Sleep disorders • Sexual dysfunction • Disorders associated with puerperium	• Classify Eating disorders Sleep disorders Sexual dysfunction, Disorders associated with puerperium • Discuss presentation of Eating disorders Sleep disorders Sexual dysfunction, Disorders associated with puerperium	• Take history of a patient • Perform clinical examination including mental state • Diagnose and manage as per bio-psycho-social model	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			• Diagnose Eating disorders Sleep disorders Sexual dysfunction Disorders associated with puerperium • Discuss the management of Eating disorders Sleep disorders Sexual dysfunction Disorders associated with puerperium			
93	**Disorders of adult personality & Behaviour**	Diagnose and manage • Personality Disorders • Impulse control disorders • Paraphilias	Classify personality disorders, impulse control disorders, and paraphilias Diagnose and manage personality disorders, impulse control disorders and paraphilia	• Take history of a patient • Perform clinical examination including mental state • Diagnose and manage as per bio-psycho-social model	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
94	**Intellectual disability**	Diagnose and manage intellectual disability	• Classify intellectual disability • presentation of intellectual disability	• Take the history of a patient along with birth history and milestones of development	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			Diagnosis and management based on bio-psycho-social model	• Perform clinical examination of a patient		
95	**Pervasive and specific developmental disorders**	• Diagnose and manage autism spectrum disorder and specific developmental disorders	Classification and presentation of autism spectrum disorders and specific developmental disorders Diagnose and manage based on presentation of autism and developmental disorders	• Take a history of a patient along with birth history • Perform clinical examination of a patient.	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
96	**Emotional and behavioural disorders of childhood & adolescents**	Diagnose and manage emotional and behavioral disorders with onset in childhood or adolescence	Classification and presentation of emotional and behavioral disorders with onset in childhood or adolescence	• Take the history of a patient along with birth history and milestones of development • Perform clinical examination of a patient	CBL/Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
97	**Pharmacological & biological interventions, in psychiatry**	The learners will be able to discuss • drugs used to treat psychiatric disorders and classification of drugs • ECT	Classify drugs used to treat psychiatric disorders Elaborate mode of action of drugs used in psychiatry and their side effects		CBL/Lecture & /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

		• TMS	Discuss the procedure, indications and contraindication of ECT & TMS in psychiatry			
	Non pharmacological interventions in psychiatry	The learners will be able to discuss various types of • psychotherapies • Social interventions	Discuss the procedure & indications of psychotherapies and social therapies		CBL/Lecture & /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
98	**Rehabilitation in Psychiatry**	Know the concept, principles & stages in psychiatric rehabilitation	Describe the concept of rehabilitation and its application Describe the principles of rehabilitation		Lecture	MCQ, SEQ, SAQ

			Describe the stages of rehabilitation in psychiatry			

ONCOLOGY , DISEASES OF LYMPH NODES &BONE MARROW						
99	**Principles of Oncology**	The learners shall be able to discuss • Causes of cancer formation • Screening of cancer for early detection • Diagnosis and classification of cancer • Investigations and staging of cancers	• Principles of surgical and non surgical treatment of cancer • Principles of chemotherapy • Principles of radio therapy • Patient follow-up • Palliative care	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
100	**White blood cells tumours**	The learners shall be able to diagnose • Lymphoma	• Corelate abnormalities in the immune system and its processes to occurrence of lymphoma and its associated clinical presentation. • Identify organs associated with Lymphoma. • Delineate the diagnostic criteria of various stages on time based Characteristic feature. • Propose diagnostic modalities and treatment options.	• Take history of a patient • Perform clinical examination of a patient with Lymphoma	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
101	**Bone marrow**	The learners shall be able to diagnose and formulate	• Classify various forms of acute and chronic Leukemia.	• Take history of a patient	Lecture & bedside teaching	MCQ/SEQ/ SAQ/OSPE/

	tumors	management plan for • Acute Leukemia • Chronic Leukemia	• Differentiate between Symptoms and signs, and characteristic features of acute and chronic Leukemia • Diagnose various stages of leukemia • Propose appropriate Investigations, diagnostic modalities, and treatment options.	• Perform clinical examination of a patient with bone marrow tumors	(Case presentation) /SDL	Long case/ short case
		Mult The learners shall be able to diagnose and formulate a management plan for Multiple Myeloma	• Define the pathological basis of Multiple myeloma • Classify various stages based on clinical presentation • Justify the role of laboratory investigations and various treatment options		Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
		The learners shall be able to diagnose and formulate management plan for Myeloproliferative Disorders	• Classify various forms of Myeloproliferativ e disorders based on Clinical Presentation. • Diagnoses various stages of the disease. • Propose • Appropriate Investigations diagnostic modalities and treatment options.		Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
102	**White blood cells tumours**	The learners shall be able to diagnose and formulate management plan for lymphoma	• Corelate abnormalities in the immune system and its processes to occurrence of lymphoma and its associated	• Take history of a patient • Perform clinical examination of a	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

			clinical presentation. • Identify organs associated with Lymphoma. • Delineate the diagnostic criteria of various stages on time based Characteristic features. • Propose diagnostic modalities and treatment options.	patient with Lymphoma		

DERMATOLOGY						
103	**Itching and pruritis**	The learners shall be able to diagnose and formulate management plan for • scabies/ pediculosis • Eczemas: atopic, seborrheic, Contact dermatitis • Urticaria	• Clinical presentation • Diagnose with the help of investigations and clinical examinations • Management • Prevention	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
104	**Acne Vulgaris**	The learners shall be able to diagnose and formulate management plan for acute vulgaris	• Clinical presentation • Diagnose with the help of investigations and clinical examinations • Management • Prevention	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

105	**Psoriasis**	The learners shall be able to diagnose and formulate management plan for psoriasis	• Clinical presentation • Diagnose with the help of investigations and clinical examinations • Management • Prevention	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
106	**Erythema multiforme** **Steven Johnsons Syndrome** • **Toxic Epidermal necrolysis**	The learners shall be able to diagnose and formulate management plan for erythema multiforme	• Clinical presentation • Diagnose with the help of investigations and clinical examinations • Management • Prevention	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
107	**Infections**	The learners shall be able to diagnose and formulate management plan for **Acute bacterial:** staphylococcal, streptococcal • **Chronic bacterial:** tuberculosis, Leprosy • **Viral:** Warts, M.Cs, herpes simplex, Herpes Zoster • **Fungal:** Tinea, Ptyriasis • **Protozoal:** Leishmaniasis	• Clinical presentation • Diagnose with the help of investigations and clinical examinations • Management • Prevention	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

108	**Bullous Disorders**	The learners shall be able to diagnose and formulate management plan for **Immune mediated:** Pemphigus, Pemhigoid, Dermatitis Herpetiformis • **Genetic:** epidermolysis bullosa • **Infective**	• Clinical presentation • Diagnose with the help of investigations and clinical examinations • Management • Prevention	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
109	**Pigmentary disorders**	The learners shall be able to diagnose and formulate management plan for • Vitiligo • Melasma	• Clinical presentation • Diagnose with the help of investigations and clinical examinations • Management • Prevention	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case
110	**Hair Disorders**	The learners shall be able to diagnose and formulate management plan for • Alopecia areata • Androgenic Alopecia	• Clinical presentation • Diagnose with the help of investigations and clinical examinations • Management • Prevention	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

111	**Cutaneous tumors**	The learners shall be able to diagnose and formulate management plan for • Basal cell carcinoma • Squamous cell carcinoma • Malignant melanoma	• Clinical presentation • Diagnose with the help of investigations and clinical examinations • Management • Prevention	• Take history of a patient • Perform clinical examination of a patient	Lecture & bedside teaching (Case presentation) /SDL	MCQ/SEQ/ SAQ/OSPE/ Long case/ short case

CRITICAL CARE & EMERGENCY
PHARMACOTHERAPEUTICS*
Both modules XVIII and XIX are vertically integrated throughout the curriculum and taught as a part of each module where required

PAEDIATRICS CURRICULUM

S. No	TOPIC/ THEMES	LEARNING OUTCOMES	LEARNING OBJECTIVES	INSTRUCTIONAL STRATEGIES	ASSESSMENT TOOL
1.	**Growth And Development**	The learners shall be able to ● Understand the normal growth and development ● Describe the physical, cognitive, emotional and social milestone of childhood development from infancy through adolescence ● Identify the normal growth patterns and developmental milestone in children ● Utilize the growth chart and developmental screening tools to observe and monitor child development ● Recognize the common developmental delays and disorders ● Perform developmental assessment and screening	● Describe the developmental domains of childhood (gross motor, fine motor, language & social development) & normal growth pattern	LGIS Interactive tutorial	MCQ SEQ/SAQ OSCE
			● Differentiate between various diseases resulting in deviation from normal growth & developmental patterns according to age (short stature, obesity, microcephaly, macrocephaly)	CBD	MCQ SEQ/SAQ OSCE
			● Take an appropriate history of a child with developmental delay	Case presentation	Structured Long case
			● Perform a developmental assessment of a child at a given age	Clinical method	OSCE
			● Perform anthropometric measurement and plot height, ● Weight and head circumference on age-appropriate charts.	Clinical methods/ skill lab	OSCE

2.	**Preventive Paediatrics**	The learners shall be able to diagnose and formulate management plan for Preventive Paediatrics	● Explain the principles and goals of preventive Paediatrics including primary, secondary, and tertiary prevention ● Identify key preventive intervention such as vaccination, screening and health education. ● Implement and advocate for routine preventive measures and health promotion strategies ● Suggest preventive measure for the common public health problems within community ● Understand the schedule and rationale for childhood vaccination ● Classify the degree of malnutrition in a malnourished child	LGIS CBD/ ward round	MCQ SEQ/SAQ
			● Differentiate between clinical features of kwashiorkor and marasmus on a patient	LGIS CBD/ ward round	MCQ SEQ/SAQ OSCE
			● Devise a plan for management of a malnourished child	LGIS CBD	MCQ
			● Obtain a history in a malnourished child at a given age	Case discussion	Structured Long Case
			● Perform a clinical examination of a malnourished child	Clinical examination	OSCE

3.	**Neonatology**	The learners shall be able to diagnose and formulate management plan for ● Identify and understand the management of common neonatal conditions such as jaundice, respiratory distress, neonatal sepsis, low birth weight and hypoxic ischemic encephalopathy. ● Diagnose and treat prevalent neonatal issues ● Demonstrate commitment to high quality care to newborn and their families ● Recognize the special needs for high-risk newborns including prematurity and neonates- with congenital anomalies ● Understand the importance of family-centred care in the neonatal settings	● Discuss causes, complications and management of a preterm/low birth weight neonate	LGIS CBD	MCQ SEQ/SAQ
			● Discuss the causes and pathophysiology of neonatal jaundice and neonatal sepsis	LGIS CBD	MCQ SEQ/SAQ
			● Interpret investigations required for neonatal jaundice and neonatal sepsis	CBD	MCQ
			● Outline treatment plan of neonatal jaundice and neonatal sepsis	CBD	MCQ SEQ/SAQ
			● Discuss the causes and pathophysiology of hypoxic ischemic encephalopathy (HIE)	LGIS CBD	MCQ SEQ/SAQ
			● Outline the treatment plan for hypoxic encephalopathy	LGIS CBD	MCQ SEQ/SAQ
			● Demonstrate history taking of a neonatal disease from mother	Case discussion	Structured long case
			● Perform a complete clinical examination of a neonate	Clinical examination	OSCE
			● Demonstrate steps of neonatal resuscitation on a dummy	Skill lab	OSCE
			● Counsel the parents of child with hypoxic ischemic encephalopathy	Role Play	OSCE
4.	**Medical Genetics and Dysmorphology**		● Understand fundamental concepts of genetics, including inheritance	LGIS CBD	MCQ SEQ/SAQ

		The learners shall be able to diagnose and formulate management plan for genetic disorders and dysmorphic conditions in children ● Competency in providing basic genetic counselling including discussing genetic risks, inheritance pattern and implications with patients and families ● Awareness of the ethical, legal and social issues related to genetic testing and counselling and integrating these considerations into patient care. ● Understand and apply current research in genetics and dysmorphology to enhance clinical practice and patient outcome	patterns, genetic mutations and chromosomal abnormalities ● Describe the chromosomal abnormality & clinical features of trisomy21		
			● Discuss the aetiology, clinical features & management of spina bifida	LGIS CBD	MCQ SEQ/SAQ
			● Identification of common Congenital Malformations ▪ Cleft lip ▪ Cleft Palate ▪ Club Foot	CBD	MCQ SEQ/SAQ
			● Perform physical examination of a child with Downs Syndrome	Clinical examination	OSCE
			● Counsel the parents of a child with Down ‟s Syndrome	Role play	OSCE
5.	**Fever**	The learners shall be able to diagnose and formulate management plan for • Fever in children,	● Discuss the differential diagnosis of patient with fever (urinary tract infection, Enteric fever, Malaria, meningitis, Rheumatic fever, Tuberculosis, infective endocarditis	LGIS CBD	MCQ

		including infectious (bacterial, viral, and parasitic) and non-infectious (autoimmune, inflammatory) origin ● Perform the skills in evaluating fever in paediatric patients by thorough history and physical examination and using diagnostic tests to identify underlying conditions ● Devise management plan ● Identify the role of vaccination and preventive care in reducing the incidence of febrile illnesses	● Interpret the results of investigation of a patient with fever	CBD	MCQ
			● Devise the management plan of a patient with fever depending upon underlying cause	LGIS CBD	MCQ
			● Take a comprehensive history of patient with fever	Case presentation	Structured Long case
			● Perform a detail clinical examination of a patient with fever	Clinical methods	Structured Long case/
			● Counsel the parents of a child with fever	Role play	OSCE
6.	**Rash**	● The learners shall be able to diagnose and formulate management plan for rash in children	● Discuss the differential diagnosis of a Paediatrics patient according to appearance of rash (measles, chicken pox, scarlet fever and	LGIS CBD	MCQ
			● Describe the complication and prevention of rash producing diseases	CBD	MCQ
			● Interpret the result of investigation in a patient with rash	CBD	MCQ

			● Discuss the management plan according to type of rash	LGIS CBD	MCQ
			● Take a detail history of a patient with rash	Case presentation	Structured long
			● Perform a clinical examination of a patient with rash	Clinical examination	OSCE
7.	**Cough**	• The learners shall be able to diagnose and formulate a management plan for cough and common causes of cough in children and outcome of cough	● Discuss the differential diagnosis of a Paediatric patient having a cough on the ● Basis of clinical features pneumonia, bronchiolitis, bronchial Asthma, Pulmonary Tuberculosis, croup)	LGIS CBD	MCQ SEQ/SAQ
			● Discuss WHO ARI classification	CBD	MCQ
			● Interpret the result of investigations of patient having cough	CBD	MCQ
			● Outline the management plan of the patient having cough depending ● Upon their underlying diagnosis	CBD	MCQ
			● Discuss the integrated management of child hood illness	CBD	MCQ
			● Take a comprehensive history of a paediatrics patient with cough	Case presentation	Structured long case

			● Perform a respiratory system examination of a patient with cough	Clinical examination	OSCE
			● Counsel/ educate a patient with Bronchial Asthma	Role play	OSCE
8.	**Diarrhoea**	• The learners shall be able to diagnose and formulate a management plan for diarrhoea and classification of diarrhoea	• Discuss differential diagnosis in a patient with acute diarrhoea on the basis of aetiology and clinical features Enlist the investigations for different types of diarrhoea • Management plan for diarrhoea • Identify the complications of diarrhoea • Counselling of parents regarding complications and prognosis of persistent diarrhea	LGIS Case presentation	MCQ SEQ/SAQ
			● Discuss differential diagnosis in a patient with chronic diarrhea on the basis of aetiology and clinical features	Case presentation	MCQ SEQ/SAQ
			● Discuss WHO classification of dehydration and its management	Case presentation	MCQ
			● Interpret the result of investigation with diarrhoea	Case presentation	MCQ
			● Devise a management plan of a patient with diarrhoea	Case presentation	MCQ
			● Take a detail history of a paediatric patient with acute/ chronic diarrhoea	Case presentation	Structured long case

			● Examine a patient for signs of dehydration	Clinical examination	OSCE
			● Counsel the parents of a child with acute diarrhoea	Role play	OSCE
9.	**Jaundice**	• The learners shall be able to diagnose and formulate a management plan for jaundice in children	● Discuss the differential diagnosis of jaundice depending upon their acute liver disease children	LGIS CBD/ward round	MCQ SEQ/SAQ
			● Discuss the differential diagnosis of jaundice depending upon their chronic liver disease in children	LGIS CBD/ward round	MCQ SEQ/SAQ
			● Interpret the result of investigation of a patient with jaundice	CBD/ward round	MCQ
			● Outline the treatment plan of a patient with jaundice depending upon their underlying cause	CBD/ward round	MCQ SEQ/SAQ
			● Take a detail history of a patient with jaundice	Case presentation	Structured long case
			● Examine a patient with jaundice	Clinical examination	OSCE
			● Counsel the parents of a jaundiced child	Role play	OSCE
10.	**Seizures**	• The learners shall be able to diagnose and formulate management plan for paediatrics seizures	● Discuss the differential diagnosis of a seizure in childhood (febrile seizures, epilepsy, CNS infections, SOL)	LGIS CBD/case presentation	MCQ SEQ/SAQ
			● Enlist the investigation for diagnosis of seizures ● Identify the complications of seizures	CBD/case presentation	MCQ

			● Outline the treatment plan of seizures according to underlying cause	CBD/case presentation	MCQ SEQ/SAQ
			● Discuss the differential diagnosis of acute Flaccid Paralysis	CBD/Case Presentation	MCQ
			● Take a history of a patient with seizures disorder	Case presentation	Structured long case
			● Perform central nervous system examination of patient with seizures disorder	Clinical examination	OSCE
			• Counsel the parents of child with epilepsy	Role Play	OSCE
11.	**Mental Retardation**	• The learners shall be able to diagnose and formulate management plan for mental retardation	• Describe aetiology, pathophysiology, and clinical features of patient with cerebral palsy • Enlist the causes of mental retardation • Differential diagnosis of mental retardation • Enlist the laboratory investigations for diagnosis of mental retardation • Management plan of mental retardation • Counselling of parents	LGIS Ward round/ CBD	MCQ SEQ/SAQ
			● Formulate the treatment plan of cerebral palsy	Ward round/ CBD	MCQ
			● Take a detail history of patient with cerebral palsy	Case discussion	Structured Long case

			● Perform clinical examination of patient with cerebral palsy	Clinical Examination	OSCE
12.	**Murmurs**	● The learners shall be able to diagnose and formulate management plan for paediatric murmurs	● Differentiate between cyanotic and a cyanotic congenital heart diseases on the basis of clinical features ● Distinguish between benign and pathological murmurs ● What is the aetiology and differential diagnosis of murmurs ● Assessment of murmurs by detailed history and physical examination ● Management plan for treatment of murmurs ● Identify the complications of murmurs	LGIS Ward round/ CBD	MCQ SEQ/SAQ
			● Interpret the results of basic investigations (CXR) required to diagnose congenital heart disease	Ward round/ CBD	MCQ SEQ/SAQ
			● Devise treatment plan of cyanotic congenital heart disease depending upon underlying cause	Ward round/ CBD	MCQ SEQ/SAQ
			● Discuss the valvular involvement in rheumatic heart disease	Ward round/ CBD	MCQ SEQ/SAQ
			● Interpret the results of basic investigations (CXR, ESR, CRP) of rheumatic heart disease	Ward round/ CBD	MCQ
			● Formulate treatment plan of rheumatic heart disease depending upon underlying cause.	Ward round/ CBD	MCQ SEQ/SAQ

			● Cardiac Failure in Children: ● Enumerate causes of Cardiac failure in children Describe clinical feature of Cardiac failure in children. ● Describe steps of management of Cardiac failure in children	LGIS Ward round/ CBD	MCQ SEQ/SAQ
			● Rhythm Disorders Understanding of normal ECG ● Interpretation of common arrhythmias, SVT, VT, AF Management of SVT, VT, AF	Ward round/ CBD	MCQ SEQ/SAQ
			● Take a detail history of a patient having heart disease	Case discussion	Structured Long
			● Perform a clinical examination (cardio vascular system examination) of a patient having murmur.	Clinical examination	OSCE
13.	**Arthritis**	• The learners shall be able to diagnose and formulate management plan for paediatrics arthritis	● Classify juvenile idiopathic arthritis ● Differential diagnosis of Juvenile idiopathic arthritis ● Discuss Differential Diagnosis of arthritis in Children	LGIS Ward round/ CBD	MCQ SEQ/SAQ
			● Discuss Clinical features of JIA, Septic and Tuberculous Arthritis	Ward round/ CBD	MCQ SEQ/SAQ
			● Interpret investigations	Ward round/ CBD	MCQ
			● Discuss the management	Ward round/ CBD	MCQ
			● Discuss the prognosis of JIA	Ward round/ CBD	MCQ
14.	**Anemia/Pallor**		● Classify anaemia	LGIS	MCQ

		• The learners shall be able to diagnose and formulate management plan for anaemia in children	● Enlist the causes of anemia in children ● Management plan for treatment of anemia ● Prognosis and follow up of anemic patients ● Identify the complications of anemia ● Differentiate among the diseases causing anemia at various ages on the basis of clinical ● Features (iron deficiency anemia, Vitamin B12 and folic acid anemia, thalassemia major)	CBD/Bedside teaching	SEQ/SAQ
			● Interpret the results of investigations in a pediatric patient with anemia	CBD/Bedside teaching	MCQ SEQ/SAQ
			● Devise a plan of management for a patient of anemia according to the underlying ● Cause (iron deficiency anemia, Vitamin B12 and folic acid deficiency anemia)	CBD/ ward round	MCQ SEQ/SAQ
			● Discuss the clinical features, pathophysiology and complications, investigations and ● Treatment plan of thalassemia	LGIS CBD/ ward round	MCQ SEQ
			● Take an age-appropriate history in an anemic pediatric patient (nutritional anemia/ Thalassemia)	Case discussion	Structure Long Case

			● Perform appropriate physical examination of an anemic patient (nutritional anemia/ thalassemia)	Clinical examination	OSCE
			● Counsel a patient of thalassemia	Role play	OSCE
15.	**Bruising/Petechiae**	• The learners shall be able to diagnose and formulate management plan for bruises and petechiae	● Discuss the causes of petechia and bruises ● Assessment of bruises and petechiae by detailed history and physical examination ● Enlist the laboratory investigation for diagnosis of petechiae and bruises ● Management plan for treatment of petechiae and bruises ● Identify the complications of bleeding disorders ● Counselling of parents ● Discuss differential diagnosis of bleeding in a paediatrics patient according to Clinical features (ITP, haemophilia, henochschonleinpurpura, leukaemia)	LGIS CBD/ Bedside teaching	MCQ SEQ
			● Interpret the results of investigations of a patient with petechiae & bruises.	CBD/Bedside teaching	MCQ SEQ
			● Devise a management plan in a paediatrics patient with bruises/ petechiae according to underlying cause	CBD/ / walk round	MCQ SEQ

			● Take an age-appropriate history of a patient with bruising/petechiae	Case presentation	Structured Long Case
			● Perform an appropriate physical examination in patient with bleeding	Clinical examination	OSCE
16.	**Oedema**	• The learners shall be able to diagnose and formulate management plan for oedema	● Describe the common causes of oedema in children ● Classify oedema ● Differential diagnosis of paediatrics oedema ● Enlist the laboratory investigation for diagnosis of oedema ● Describe management plan for treatment of oedema ● Identify the complications of oedema ● Differentiate among the causes of generalized oedema in children on the basis of clinical features.	LGIS CBD/ward rounds	MCQ SEQ/SAQ
			● Interpret the investigations of a patient with oedema (nephrotic syndrome, AGN)	CBD/ward rounds	MCQ SEQ/SAQ
			● Devise a management plan in a patient with oedema (nephrotic syndrome, AGN)	CBD/ward rounds	MCQ SEQ/SAQ
			● Discuss complications in patient with nephrotic syndrome / AGN	CBD/ward rounds	MCQ SEQ/SAQ
			● Chronic renal failure in children ● Describe aetiology of CRF in	LGIS CBD/ward rounds	MCQ SEQ/SAQ

			children. ● Describe clinical features of CRF in children interpret investigations of CRF in children. ● Describe steps of management of CRF. Describe prognosis of CRF in children.		
			● Take an appropriate history in a patient with oedema	Case discussion	Structured Long Case
			● Perform an appropriate clinical examination of a child with oedema	Clinical examination	OSCE
17.	**Endocrine Problems**	• The learners shall be able to diagnose and formulate management plan for endocrine disorders	● Differentiate between the clinical features of hypothyroidism	LGIS Ward round/ CBD	MCQ SEQ/SAQ
			● Interpret the investigations required for diagnosis of hypothyroidism	Ward round/ CBD	MCQ SEQ/SAQ
			● Outline management plan in paediatric patient with hypothyroidism	Ward round/ CBD	MCQ SEQ/SAQ
			● Diabetes mellitus: ● Describe aetiology of insulin dependent diabetes mellitus (IDDM). Describe clinical features of IDDM. ● Interpret investigations of IDDM Describe steps of management of DDM.	LGIS Ward round/ CBD	MCQ SEQ/SAQ

			● Outline follow up steps for a patient having IDDM.		
			● Discuss the differential diagnosis of child with short stature	LGIS Ward round/CBD	MCQ SEQ/SAQ
			● Take an age-appropriate history of a patient with hypothyroidism	Case presentation	Structured Long case
			● Perform examination of a paediatric patient with hypothyroidism	Clinical methods	OSCE
			● Take an appropriate history of patient with short stature	Case Presentation	OSCE
			● Perform general physical, Anthropometric measurement and systemic examination and draw on growth chart	Case Presentation	OSCE
			● Counsel the parents of child with short stature	Role Play	OSCE
18.	**Rickets**	• The learners shall be able to diagnose and formulate management plan for Rickets	● Enlist causes of rickets in children ● Describe the clinical features of rickets ● Enlist the lab investigations for diagnosis of rickets ● Devise management plan for treatment of rickets ● Identify the signs of rickets ● Differentiate between different types of rickets ● Interpret laboratory investigations and radiological findings of different types of rickets ● Devise management plan of rickets	LGIS SGD Case presentation	MCQS SEQS/SAQ OSCE

			• Complications of rickets		
19.	**UTI**	• The learners shall be able to diagnose and formulate management plan for UTI	• Describe the aetiology and pathophysiology of UTI • Describe the clinical features of UTI. • Enlist the lab investigations for diagnosis of UTI • Devise management plan for treatment of UTI • Identify the complications of UTI	LGIS SGD SDL Case Presentation Skill lab	SAQs MCQs OSCE
20.	**Nephrotic Syndrome**	• The learners shall be able to diagnose and formulate management plan for Nephrotic syndrome	• Define Nephrotic Syndrome • Justify clinical features of Nephrotic syndrome with based on its pathophysiology Interpret the results of investigations for diagnosis of nephrotic syndrome • Formulate management plan for Nephrotic syndrome • Predict the complications of Nephrotic syndrome on each clinical situation	LGIS SGD, SDL Case Presentation Skill lab	SAQs MCQs OSCE
21.	**Acute Renal Failure**	• The learners shall be able to diagnose and formulate management plan for Acute renal failure	• Describe the pathophysiology and classification of acute renal failure in children • Identify the aetiologies of acute renal failure • Asses clinal presentation and diagnosis • Understand the management strategies • Analyse complications and prognosis	LGIS SGD SDL Case presentation	MCQS SEQS/SAQS OSCE
22.	**Acute Glomerulonephritis**	• The learners shall be able to diagnose and formulate	• Describe etiology of acute glomerulonephritis	LGIS SDL	MCQS SEQS/SAQs

		management plan for Acute glomerulonephritis	• Correlate clinical picture of APGN with its pathophysiology • Interpret investigations for diagnosis of UTI • Devise management plan of APGN • Predict the complications and prognosis of APGN in each clinical situation	SGD Case presentation	OSCE
23.	**Cushing Syndrome**	• The learners shall be able to diagnose and formulate management plan for Cushing syndrome	• Define Cushing Syndrome • Identify causes and risk factors • Recognize the clinical features of Cushing syndrome • Describe the diagnostic approach for Cushing syndrome • Outline treatment plan for management of Cushing syndrome	LGIS SDL SGD Case presentation	MCQS SEQS/SAQs OSCE
24.	**Leukemia**	• The learners shall be able to diagnose and formulate management plan for leukemia	• Define leukemia • And its classification • Understand clinical features of leukemia • Describe the diagnostic approach for leukemia • Outline treatment options for paediatric leukemia • Evaluate prognosis and outcome	LGIS SDL SGD Case presentation	MCQS SEQS OSCE
25.	**Thalassemia**	• The learners shall be able to diagnose and formulate management plan for thalassemia	• Define Thalassemia • And distinguish between its major types including alpha thalassemia and beta thalassemia • Explain the genetic basis including the inheritance pattern	LGIS SDL SGD Case presentation	MCQS SEQS OSCE

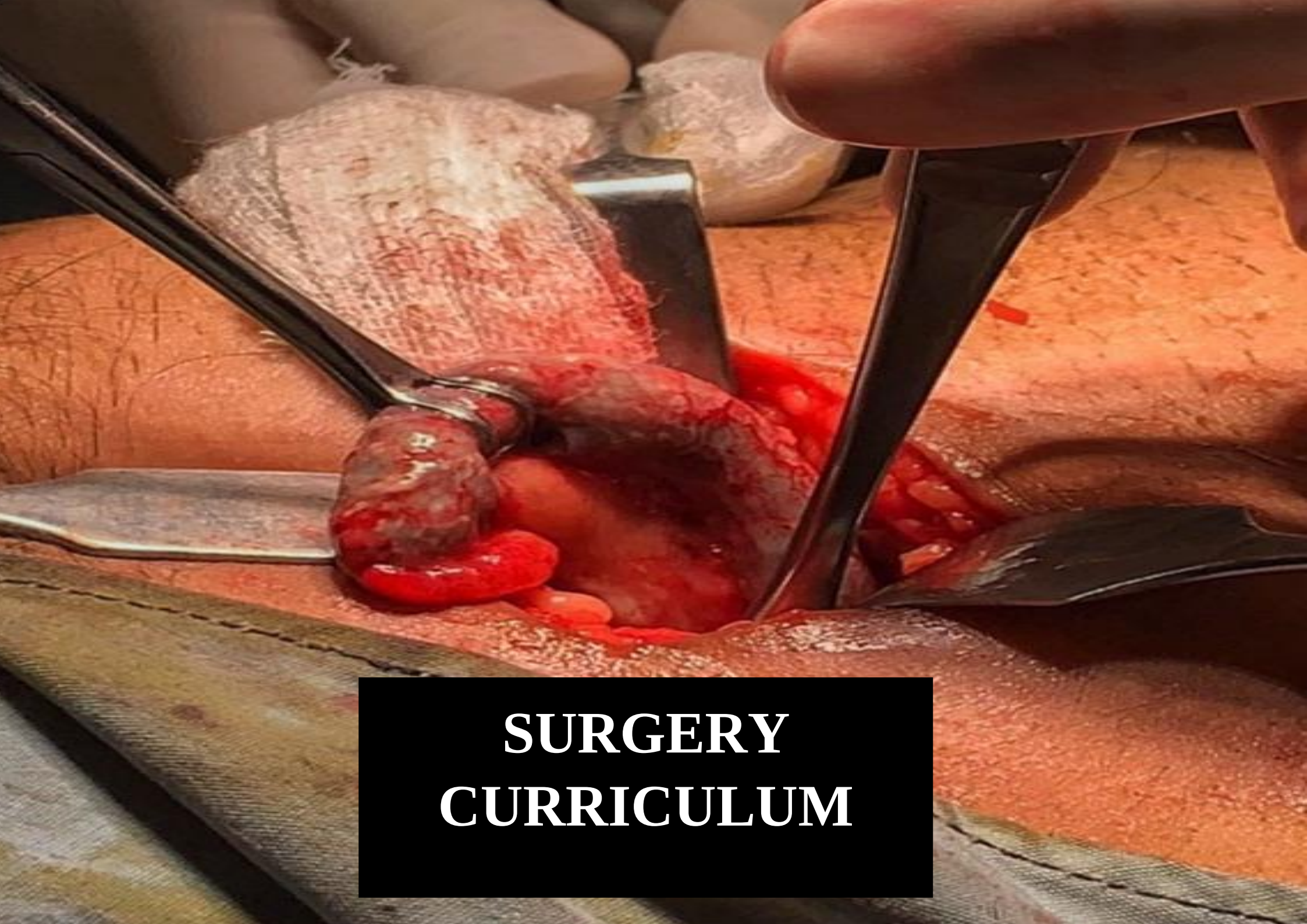
			• Identify the common clinical features of thalassemia in children • Describe the diagnostic approach for thalassemia • Outline the main treatment options plan • Assess potential longterm outcome		
26.	**Muscular Dystrophy**	• The learners shall be able to diagnose and formulate management plan for muscular dystrophy	• Define Muscular dystrophy • Describe the aetiology of muscular Dystrophy • Outline the clinical features of Muscular dystrophy • Devise management plan for treatment of Duchenne Muscular Dystrophy • Identify the complications of Duchenne muscular dystrophy	LGIS SDL SGD Case presentation	MCQS SEQS OSCE
27.	**Cerebral Palsy**	• The learners shall be able to diagnose and formulate management plan for cerebral palsy	• Identify and describe the main types of cerebral palsy • Recognize the key clinical features of cerebral palsy in children • Assess how cerebral palsy affects developmental milestones • Outline the diagnostic approach for cerebral palsy • Describe the management strategies for cerebral palsy	LGIS SDL SGD Case presentation	MCQS SEQS OSCE
28.	**CNS INFECTIONS (Bacterial meningitis,** **Virla meningoencephalitis)**	• The learners shall be able to diagnose and formulate management plan for CNS Infections	• Define CNS infections including meningitis and encephalitis • Understand how to assess the severity and progression of symptoms • Outline the diagnostic approach for CNS infection	LGIS SDL SGD Case presentation	MCQS SEQS OSCE

			• Discuss how to differentiate between Identify important clinical features of CNS infections • Differentiate between common CNS infections on clinical features • Interpret CSF findings in the diagnosis of CNS infections bacterial, viral, fungal and parasitic infections • Describe the treatment options for CNS infections • Discuss preventive measures for CNS infections • 5.Discuss the importance of supportive care • Assess long term outcome • Devise plan of management • Discuss complications • Describe proper plan for prevention of meningitis		
29.	**Acute Flaccid Paralysis (Guillain Barre syndrome)**	• The learners shall be able to diagnose and formulate management plan for Acute Flaccid Paralysis (Guillain Barre syndrome	• Describe the key characteristic features of AFP • Identify the clinical features of AFP • Outline the diagnostic approach for AFP • Describe the management strategies for AFP • Identify important signs of motor neuron diseases • Differentiate between upper from lower motor neuron diseases on clinical features. • Define AFP	LGIS SDL SGD Case presentation	MCQS SEQS OSCE

			• Discuss common causes of AFP in children • Differentiate between AFP and Guillain barre Syndrome • Differentiate between GBS and poliomyelitis • Interpret investigations to differentiate between GBS and poliomyelitis • Devise management plan for poliomyelitis and GBS		
30.	**Poliomyelitis**	• The learners shall be able to diagnose and formulate a management plan for poliomyelitis	• Define poliomyelitis • Identify and describe clinical manifestations of poliomyelitis • Outline diagnostic approach for poliomyelitis • Discuss the differential diagnosis of poliomyelitis • Describe the management strategies for poliomyelitis • Discuss the role of vaccination • Identify complications of poliomyelitis • Discuss prevention of poliomyelitis	LGIS SDL SGD Case presentation	MCQS SEQS OSCE
31.	**Tuberculosis**	• The learners shall be able to diagnose and formulate a management plan for Tuberculosis	• Define Tuberculosis • Identify and describe the common clinical features of TB in children • Outline the diagnostic approach for TB in children • Dicuss how to differentiate TB from other respiratory infections	LGIS SDL SGD Case presentation	MCQS SEQS OSCE

			• Describe the treatment plan for TB in children • Assess the potential long-term outcomes and complications • Describe the pathophysiology of Tuberculosis in children • Recognize the common clinical features of TB in children • Explain the diagnostic methods for TB in children • Standard treatment regimen for TB in children • Understand the potential long-term outcomes of TB in children •		
32.	**Malaria**	• The learners shall be able to diagnose and formulate a management plan for Malaria	• Define Malaria • Identify the common clinical features of malaria • Enlist the lab investigations for diagnosis of malaria • Discuss how to differentiate malaria from other febrile illness ● Describe the treatment options for malaria ● Describe the Describe the life cycle of the plasmodium parasite and how it causes malaria ● List the primary symptoms of malaria in children ● Explain the diagnostic methods used to confirm malaria in children	LGIS SDL SGD Case presentation	MCQS SEQS OSCE

			• Summarize the standard treatment protocols for malaria in children • Describe effective malaria prevention		
33.	**Enteric fever**	• The learners shall be able to diagnose and formulate a management plan for Enteric fever	• Describe the aetiology, pathophysiology, and epidemiology of enteric fever in children • Recognize and enlist the common signs and symptoms of enteric fever in children • Explain the diagnostic methods used for diagnosis of enteric fever • Outline the current treatment protocols for enteric fever • Explain the preventive measures for enteric fever • Describe the global and local epidemiology of enteric fever in children • Identify the common signs and symptoms in children • Interpret the lab investigations for diagnosis of enteric fever • Discuss the management plan for treatment of enteric fever • Identify the complications of enteric fever • Explain strategies for prevention of enteric fever	LGIS SDL SGD Case presentation	MCQS SEQS OSCE



SURGERY CURRICULUM

S. No	TOPIC/ THEME	LEARNING OUTCOMES	LEARNING OBJECTIVES		INSTRUCTIONAL STRATEGIES	ASSESSMENT TOOLS
1	**Metabolic response to injury**	The learners shall be able to diagnose and formulate a management plan for metabolic response to injury	• Normal physiology, water loss & intoxication • Physiology of fluids and electrolytes • Pathophysiology of fluids and electrolytes derangements • Acid-base balance • ECF loss & Excess, Hyponatremia, Hypernatremia, Hypermagnesemia, Hypomagnesemia • Clinical diagnosis Lab diagnosis Management Fluid loss reference to • Describe the major fluid compartments of the body, the effect of osmolality • Explain what may happen in common conditions (eg acute blood loss,	• Assess the volume of body fluid depletion, Administer fluids according to age and comorbids. • Calculate the correct volume and rate of administration • Monitor the progression of fluid optimization	Lecture/SDL	MCQ/SE Q/SAQ/ OSPE/Lo ng case/ short case

			dehydration, excessive fluid replacement). ● Recognize the different types of fluids used for optimization, especially Hartmann's, Normal 0.9% Saline and Dextrose.			
2	**Peri-operative Care**	The learners shall be able to formulate Peri-operative Care	● Pre – operative optimization of surgical patients with systemic diseases ● Types of medical diseases ● Assessment of patients Rationalize routine intravenous fluid replacement in surgical patients ● Identify the commonly prescribed intravenous fluids.	● Counsel the patient about the prognosis of the disease ● Detect post – op complications	Lecture/SDL	MCQ/SE Q/SAQ/ OSPE/Lo ng case/ short case
3	**Shock & Blood transfusion**	● The learners shall be able to manage Shock & Blood transfusion	● Shock/Classification Hypovolemic Shock Hemorrhage Blood transfusion	● Clinically assess hypovolemia ● Identify patients in need of fluid	Lecture /CBL/SDL	MCQ/SE Q/SAQ/ OSPE/Lo ng case/ short case

			Discuss the protocols of blood transfusion ● Elaborate principles of blood transfusion of a surgical patient	optimization/blood transfusion		
4	**Wound, healing and tissue repair**	● The learners shall be able to manage Wound, healing and tissue repair	● Describe the process and stages of wound healing. ● State primary, secondary and tertiary wound healing. ● Justify the reasons for conducting a wound assessment. ● Summarize pressure ulcer classification. ● □ State the need to assess pain in wound Wound classification, Mechanism of healing ● Factors affecting wound healing ● Complications of wound ● Hypertrophic scars, keloid	● Identify wound bed tissue types. ● Describe the skin surrounding the wound reference to underlying disease and the effectiveness of current treatment.	Lecture/SDL	MCQ/SE Q/SAQ/ OSPE/Lo ng case/ short case 5

5	**Surgical Infections**	● The learners shall be able to manage Surgical Infections	● Define the following terms: systemic inflammatory response syndrome (SIRS), sepsis, severe sepsis, septic shock, MOFS and acute respiratory distress syndrome(ARDS). ● Differentiate between SIRS, sepsis, severe sepsis and septic shock on the basis of signs, symptoms, vital signs, hemodynamic measures and laboratory tests ● Explain the seriousness of sepsis ● Describe the microbiological causes of sepsis. ● Describe the pathophysiology and mechanism of sepsis. ● Prioritize for treatment of sepsis. ● Explain the role of vasoactive agents in supporting the physiological	● Take proper history of patient with sepsis ● Perform clinical examination of patient with sepsis ● Determine appropriate fluid resuscitation for sepsis with colloids or crystalloids. ● Recommend an appropriate antibiotic regimen for treatment of sepsis based on patient characteristics and site of primary infection. ● Carry out Sepsis 6 (BUFALO) recommendations within the first hour to reduce mortality ● Prescribe antibiotic following local guidelines/protocols Bacteremia, Septicemia, Pyemia, SIRS, Sepsis, MOFS Severe Sepsis & Septic shock. ● Definitions ● Pathophysiology ● Diagnosis	CBL/SDL	MCQ/SE Q/SAQ/ OSPE/Lo ng case/ short case

			function of a patient with sepsis. ● Select appropriate agent, given details of a patient's condition. ● Develop an appropriate monitoring program for patients with sepsis. ● List the principles of diagnosis and management of sepsis. ● State when to involve the infection control team. ● State when to take appropriate microbiological specimens.	● Investigations ● Management principles ● Sepsis 6 (BUFALO) recommendations within the first hour to reduce mortality ● B – blood cultures ● U – urine output ● F – fluid ● A – antibiotics ● L -lactate (and ● hemoglobin) ● O – oxygen ●		

6	**Skin swellings and lumps**	● The learners shall be able to diagnose and manage Skin swellings and lumps	● Classify lumps in skin & subcutaneous tissue ● Differentiate between benign and malignant tumors ● List the principles of diagnosis and management of lumps in	● Take proper history of patient presenting with skin swelling ● Perform clinical examination of patient presenting with skin swelling	Lecture/ CBL/SDL	MCQ/SEQ/SAQ/ OSPE/Lo ng case/ short case

			skin & subcutaneous tissue.	• Cyst, Dermoid, Papilloma, Fibroma, Bursae, ganglion, Neurofibroma, Schwannoma and Basal Cell Carcinoma • Classification • Clinical features • Diagnosis • Management		
7	**Sinuses and fistulas**	• The learners shall be able to diagnose and manage Sinuses and fistulas	• Classification • Causes • Clinical features • Diagnosis • Management principles List the principles of diagnosis and management of sinuses and fistula on the basis of its etiology.	• Take proper history of patient presenting with sinuses and fistula • Perform clinical examination of patient presenting with sinuses and fistula	Lecture /CBL/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case
8	**Burns**	• The learners shall be able to diagnose and manage Burns	• Apply basic concepts of burn injury and pathophysiology to the evaluation, resuscitation, clinical management and rehabilitation of the burned patient. • Evaluate a burned patient • Develop an initial treatment plan for	• Types of burns • Pathophysiology • Complications • Acute management • Reconstruction • Assess the appearance of the burn wound in relation to its depth,	Lecture& bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

			stabilization and fluid replacement using basic principles of burn management.	bacteriologic condition, healing potential and requirement for intervention.		
9	**Ulcer**	• The learners shall be able to diagnose and manage Ulcers	• Definition of ulcers • Classification of ulcers • Pathophysiology of ulcers • Definitive diagnosis • Treatment plan List the principles of diagnosis and management of ulcers on the basis of its pathophysiology	• Take proper history of patient presenting with ulcer • Perform clinical examination of patient presenting with ulcer	Lecture /CBL/SDL	MCQ/SEQ/SAQ/ OSPE/Lo ng case/ short case

TRAUMA						
PRINCIPLES AND MANAGEMENT OF TRAUMA PATIENTS						
10	**Trauma and tissue response**	• The learners shall be able to diagnose and manage Trauma and tissue response	• Describe the physiological response to injury. • State the principles of surgical treatment in a multi-injured patient. • Assess priorities during all phases of management following ATLS principles. • Justify the importance of re-assessment of the patient with regards to earlier interventions.	• Types of trauma • SIRS • Pathophysiology • Immediate management • Definitive management • Complications • Rapid primary survey, concurrent resuscitation, secondary survey,	Primary trauma care course (PTCC) /SDL	lectures/ clinical training

			• Emphasize the significance of a patient with polytrauma. • Discuss issue of missed injuries, management and documentation. • Differentiate between primary and secondary survey. • Define triage and its importance. • State the importance of analgesia in the management of these patients. • Differentiate between blunt, penetrating, crush, blast injuries on the basis of mechanisms of trauma • List the interventions that may be required for head injury. • Explain the importance of nerve or vessel Injury in trauma. • Elaborate the importance of a continuum of care for the injured patient by a multidisciplinary team	continued re-evaluation and monitoring, investigation and definitive care. • Traumatic Brain Injury • Neck and Spine Trauma • Maxillofacial Trauma • Abdominal Trauma • Extremity Trauma • Disaster surgery • Take proper history of patient presenting with trauma (AMPLE) • Perform clinical examination of patient presenting with trauma • Provide emergency care with the patient of poly-trauma as per ABCDE protocol		

			• Explain the importance of the ATLS strategy and systematic approach. • Explain the role of radiological investigations (eg CT scanning) and interventions. • dentify the role of investigation and treatment dependent on the hemodynamic status of the patient.			
11	**Trauma to regions**	• The learners shall be able to diagnose and manage Trauma to regions	• Differentiate between different types of chest injuries based on mechanism of pathophysiology findings, and management.	• Chest Trauma Broken ribs • Thoracic trauma, Pneumothorax • Take proper history of patient presenting with chest trauma. • Perform clinical examination of patient presenting with chest trauma.	CBL & Bedside teaching PTCC/SDL	MCQ/SEQ/SAQ/ OSPE/Lo ng case/ short case

BASICS OF RADIOLOGY						
12	**Conventional Radiology Advanced techniques**	• The learners shall be able to grasp concepts of Conventional Radiology Advanced techniques	• Demonstrate knowledge, clinical and technical skills and decision-making capabilities with	• X-ray Chest • Normal and different pathological conditions like pleural effusion,	Lecture/CBLs /SDL	MCQ/SEQ/SAQ/ OSPE/Lo

			respect to diagnostic imaging pertinent to the practice of General Surgery • State the basic principles of radiation protection and law in relation to use of ionizing radiation • Justify use of relevant imaging techniques in various clinical scenarios reference to advantages and disadvantages.	Pneumothorax, Bronchitis, cardiomegaly, Mitral valve disease, left to right shunts, differentiating pulmonary arterial from pulmonary venous hypertension. ● X-Ray Abdomen ○ Free air under the diaphragm. Intestinal obstruction. Barium studies: barium swallow, meal, follow through, enema. Normal gut pattern on plain film and barium studies ● Genito Urinary Tract ○ IVU technique, Different phases of IVU. Basic pathologies as obstructive uropathy Hysterosalpingography: technique Normal uterus and fallopian tubes, Abnormal tubes as tubal blockage. ● Skull X Ray ○ Spine X-Ray Imaging modalities, X Ray projections of spine.		ng case/ short case

				Plain X Ray anatomy of spine ● Bones ○ Modalities. for bone imaging Projections. Plain x rays of bones for pathologies as rickets, fractures, neoplastic lesions Lytic and sclerotic lesions. ● CT scan & MRI Interprets normal radiographs ● Differentiate between normal and pathological findings on radiographs		

PAEDIATRIC SURGERY						
13	**Congenital Deformities**	• The learners shall be able to diagnose and treat Congenital Deformities	• Relate embryological formation of face/ lip and palate to congenital anomalies • Detail signs, symptoms, treatment options, complications and management of Cleft Lip & palate • Relate embryological formation of hip joint, foot and palate to congenital anomalies	• Cleft Lip & palate Reconstructive Surgery • CTEV • Dysplasia of hip joint • Take history of a patient with Cleft Lip & palate/CTEV • Perform clinical examination of a patient with Cleft Lip & palate/DTEV/	Lecture/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

			• Detail signs, symptoms, treatment options, complications and management of CTEV and Dysplasia of hip joint	Dysplasia of hip joint		
14	**Congenital anomalies- Skull/Meninges**	• The learners shall be able to diagnose and treat Hydrocephalus & Meningocoele	• Describe the common symptoms, signs and management of hydrocephalus and meningocele.	Take history of a patient with Hydrocephalus & Meningocele	Lecture/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case
15	**Congenital anomalies- upper GI**	• The learners shall be able to diagnose and treat ○ Esophageal atresia pyloric stenosis, Hirschsprung's Disease ○ Biliary Atresia	• Correlate the embryological origin of upper GI tract with Pathophysiology of Esophageal atresia, pyloric stenosis, Hirschsprung's Disease • Differentiate between the Clinical presentation of Esophageal atresia, pyloric stenosis, Hirschsprung's Disease, biliary atresia • Propose diagnostic investigations and treatment options in Esophageal atresia, pyloric stenosis, Hirschsprung's Disease, biliary atresia	• Take history of a patient with esophageal atresia Perform clinical examination of a patient with esophageal atresias	Lecture & bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

			• Develop management plan for Complications Esophageal atresia, pyloric stenosis, Hirschsprung's Disease			
16	**Congenital anomalies- lower GI**	● The learners shall be able to diagnose and treat ○ Neonatal intestinal obstruction ○ Meconium ileus intestinal atresia intussusceptions	• Correlate defects in embryologic developments to the causes, types and clinical features, radiological findings of neonatal intestinal obstruction. • illustrate the contribution of different imaging modalities in diagnosis of neonatal intestinal obstruction. • Develop an approach to the management of neonatal obstruction involving clinical and imaging data.	• Take history of a patient with neonatal intestinal obstruction • Perform clinical examination of a patient with neonatal intestinal obstruction	CBL& bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case
17	**Congenital anomalies- Urogenital system**	● The learners shall be able to diagnose and treat ○ Undescended testis ○ Hypospadias	• Correlate defects in the embryological origin of testes to classification of Undescended testis and its clinical presentation.	• Take history of a patient with Undescended testis/hypospadias • Perform clinical examination of a patient with	Lecture & bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

			• Suggest Diagnostic investigations and treatment options of Undescended testis • Elaborate management plan for possible complications of Undescended testis	Undescended testis/hypospadias.		

ORTHOPAEDICS						
18	**Injuries of Upper limb**	• The learners shall be able to diagnose and treat ○ Injuries of shoulder and arm ○ Injuries of forearm and hand	• Identify anatomical features of bones and joints of upper and lower limbs • State the general principles of fracture management.	• Take history of a patient with fracture • Perform clinical examination of a patient with fracture	Lecture & bedside teaching /PTCC/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case
19	**Injuries of Lower limb**	• The learners shall be able to diagnose and treat ○ Injuries of pelvis and femur ○ Fracture Neck of Femur ○ Injuries below knee joint	• Classify different types of fractures. • State radiological principles in fracture diagnosis. • List complications from fractures. • Describe the basic surgical management of fractures, including femoral neck fractures.	□ Take history of a patient with fracture • Perform clinical examination of a patient with fracture • Suggest management plan	Lecture/ PTCC/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

20	**Open Fracture**	• The learners shall be able to diagnose and treat ○ Open Fracture	• Justify the management of open fractures and soft-tissue injury through surgery	• Take history of a patient with open fracture • Perform clinical examination of a patient with open fracture • Diagnose Fracture • Suggest management plan	Lecture/ PTCC/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

21	**Fractures without Displacement**	• The learners shall be able to diagnose and treat
		  ○ Supracondylar Fracture in children
		  ○ Stress fractures
			• Describe the cellular process of fracture healing.
			• State the principles of general management of a fracture.
			• Differentiate the differences between different types of displaced fractures
			• Summarize the concept of 'stability' of a fracture
			• Describe the soft tissue component of a fracture
			• Identify risk factors for fractures
			• Classify fractures using different methods including Garland classification
				• Take history of a patient with fracture
				• Perform clinical examination of a patient with fracture
				• Diagnose Fracture
				• Suggest management plan
					Lecture/ PTCC/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

22	**Joints- Abnormalities**	• The learners shall be able to diagnose and treat ○ Dislocation of Joints	• Describe the management of a dislocated joint	• Take history of a patient with dislocated joint • Perform clinical examination of a patient with dislocated joint	Lecture/ PTCC	MCQ/SEQ/SAQ/ OSPE/Long case/ short case
23	**Infections – bone & joint /Soft tissue ,** **Congenital bone disorders**	• The learners shall be able to diagnose and treat ○ Osteomyelitis Pathophysiology. ○ Septic arthritis ○ Club foot (talipes equinovarus) ○ Congenital bone disorders, osteogenisis imperfecta , achondroplasia, Marfan's syndrome ○ Signs and symptoms. Medical treatment Surgical treatment	• Classify pathophysiology signs & symptoms, medical and surgical types of infections and congenital disorders of bones and soft joint tissues • Discuss the clinical presentation • List the diagnostic and treatment modalities .	• Take history of a patient with Osteomyelitis, Septic arthritis, Club foot (talipes equinovarus) and osteogenisis imperfecta, achondroplasia, Marfan's syndrome • Perform clinical examination of a patient with bone, joint or soft tissue diseases	Lecture/ CPC/SDL	MCQ/ SEQ / SAQ/ OSPE/ Long case/ short case
24	**Tumors**	• The learners shall be able to diagnose and treat ○ Bone tumours	• Classify benign and malignant tumors and soft tissue sarcomas	• Take history of a patient with bone tumours	Lecture/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

			• Choose best diagnostic strategies for appropriate treatment. • Elaborate the surgical interventions for bone tumors and soft tissue sarcomas.	• Perform clinical examination of a patient with bone tumours		
25	**Backache**	• The learners shall be able to diagnose and treat o Acute Lumbago o Degenerative Spine Disease o TB spine o Spinal Tumours	• Relate functional anatomy to mechanisms for pain production. • Differentiate between different types of low back pain based on signs and symptoms • Develop management plan for a patient with a Lower back pain. • Justify physical therapy as management option. • Describe the pathogenesis and natural history of degenerative disease of spine. • Select appropriate diagnostic tools to interpret the results • Identify the patient problems using appropriate clinical	• Take history of a patient with backache • Perform clinical examination of a patient with backache • Patient's medical work up, referral and physical therapy evaluation • Offer recommendations for prophylaxis to patients in acute LBP and when in periods of recovery. • Educate patient about compliance & importance of physical therapy.	CBL/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

			examination and radiological studies. • Apply evidence-based decision making for the management of the patient. • Manage post injury and post-operative complications • Describe the etiology, epidemiology and pathophysiology of inflammatory infectious conditions of the spinal column. • Suggest appropriate investigations and laboratory work up to establish case based differential diagnosis. • Differentiate between various types of spinal tumors. • Assess the patient clinically for accurate treatment and about Post-surgical complications.			

26	**Tumours brain**	● The learners shall be able to diagnose and treat ○ SOL Brain & Brain Tumours ○ Brain tumors in the following locations: Cerebellum, Brainstem and Pituitary etc. ○ Brain abscess	• State relative incidence and location of the major types of primary and secondary brain tumors and space occupying lesions • Differentiate between clinical presentations of brain tumors based on their locations: Cerebellum, Brainstem and Pituitary etc. • Describe the surgical indications for the most common benign and malignant tumors and also space occupying lesions of brain. • List the major differences between the diagnosis and management of brain tumors and abscesses.	• Take history of a patient with brain tumours • Perform clinical examination of a patient with brain tumours	Lecture/CBC/ SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case
27	**Injuries**	● The learners shall be able to diagnose and treat ○ Head Injury ○ Peripheral Nerve Injuries ○ Hydrocephalus Myelo-meningocele Vascular anomalies	• List the interventions that may be required for head injury. • Explain the importance of nerve or vessel injury in trauma. • Correlate types of head injury to their pathophysiology. • Demonstrate the ABCDE approach and its relation to the avoidance of secondary neurological damage after head injury. • Discuss the surgical treatment and complications • Differentiate between compression and laceration in nerve injury on the basis of pathology presentation	• Take history of a patient with head injury • Perform clinical examination of a patient with injury • Review the GLASSGOW COMA SCALE • Recognize signs in neurologically deteriorating patient. ● Perform examination of peripheral nerves	Lecture& bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

			• Identify historical and current concepts of sensibility retraining in nerve injury. Identify common nerve palsies, rehabilitation phases, treatment approaches and associated problems. • Discuss common nerve compression syndromes, anatomical features, provocative tests, differential diagnosis and therapeutic interventions	• Diagnose peripheral Nerve injury		
28	**Ischaemia**	• The learners shall be able to diagnose and treat ○ Acute limb Ischaemia	• Identify clinical manifestations and etiology of acute limb ischemia • Relate the major risk factors to the etiology and pathophysiology of acute limb ischemia. • Elaborate differential diagnosis of acute limb ischemia. • Suggest appropriate investigations • Plan appropriate nursing care for the patient of acute limb ischemia.	• Take history of a patient with ischaemia • Perform clinical examination of a patient with ischemia • Discuss the medical and surgical management of acute limb ischemia.	Lecture/SDL	MCQ/SEQ/SAQ/OSPE/Long case/ short case
29	**Chronic limb Ischaemia** **DVT**	• The learners shall be able to diagnose and treat ○ Vascular Anatomy ○ Coagulation Mechanisms	• List risk factors for the development of a Deep Vein Thrombosis (DVT)/chronic limb ischemia. • Recognize the signs and symptoms of DVT and chronic limb ischemia. • Generate a prioritized differential diagnosis of DVT/based on specific physical findings using pre-test probability tools • Justify utility of various diagnostic tests based on their interpretation	• Take history of a patient with ischaemia and with swelling of one leg • Perform clinical examination of a patient with swelling of one leg • Develop an appropriate	Lecture & bedside teaching/SDL	MCQ/SEQ/SAQ/OSPE/Long case/ short case

				management plan for DVT/CLI. • Develop prophylaxis plan of deep vein thrombosis prophylaxis where indicated		
30	**Peripheral Venous Disease**	• The learners shall be able to diagnose and treat ○ Varicose Veins ○ Venous Anatomy ○ Surgical Complications of DM ○ Diabetic foot ulcer in terms	• Elaborate clinical presentation, etiology and pathophysiology of varicose veins. • Suggest differential diagnosis based on assessment of patient. • Classify varicose veins. • Rule out the diagnosis of DVT using appropriate investigations • Elaborate significance of Baseline glycemic control required for surgical procedure	• Diagnose varicose veins. • Suggest differential diagnosis based on assessment of patient. • Rule out the diagnosis of DVT • Suggest conservative or surgical • management of varicose veins where indicated. • Counsel a diabetic patient about foot care • assess the severity of Diabetic foot ulcer • Suggest antibiotic and local treatment for simple ulcers.	CBL & Bedside teaching/SDL	MCQ/SEQ/SAQ/OSPE/Long case/ short case

		of wound infection, associated soft tissue, or bone involvement, along with the systemic features of sepsis	• Discuss the complications of DM in Surgical Patient • Identify the Signs and Symptoms of uncontrolled DM in patients	• Develop pre-op, and post-op management plan for a diabetic patient.		
31	**Gangrene**	• The learners shall be able to diagnose and treat Gangrene	• Definition • Types • Pathophysiology • Clinical features • Diagnosis Differentiate between dry and wet gangrene • List the principles of diagnosis and its management	• Take history of a patient with gangrene • Perform clinical examination • Diagnose and Suggest management plan	CBL & Bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

32	**Infections**	• The learners shall be able to diagnose and treat ○ Empyema Thoracic ○ Lung Abscess ○ Bacteriology	• Differentiate between types of para pneumonic abscess on the basis of etiology. • Generate differential diagnosis of empyema thoracic • Understand the role of radiographic, endoscopic and laboratory evaluation in the diagnosis • Discuss the complications of disease and of surgical procedures for empyema thoracic	• Take history of a patient with empyema thoracic • Perform clinical examination of a patient with empyema thoracic • Devise a proper management plan including pharmacotherapy and need for	Lecture & bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

				surgical intervention • Propose postoperative follow up plan for the patient		
33	**SOLs – Mediastinum**	• The learners shall be able to diagnose and treat ○ Mediastinal anatomy ○ Mediastinal masses	• Describe the different types and clinical features of mediastinal masses • Generate differential diagnosis of mediastinal mass based on signs and symptoms	• Take history of a patient with mediastinal masses • Perform clinical examination of a patient with mediastinal masses • Diagnose mediastinal mass. • Devise a management plan for the treatment and • Counsel the patient about the prognosis and follow up.	CBL/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case
34	**Tumors lungs**	• The learners shall be able to diagnose and treat ○ CA Lung	• Identify the causes and risk factors for lung cancer • Discuss the prognostic factors of Ca lung. • Classify tumors based on types, staging and grading • Justify the role of radiographic, endoscopic and laboratory evaluation in the diagnosis	• Take history of a patient with Ca lung • Perform clinical examination of a patient with Ca lung • Investigate and diagnose Ca lung	Lecture & bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

	CA Oesophagus		• Relate cause, risk factors to pathophysiology of Ca Oesophagus. • Classify ca esophagus using TNM classification • Understand the role of grading and staging in assessment of patient.	• Suggest management plan • Take history of a patient with Ca Oesophagus • Perform clinical examination of a patient with Ca Oesophagus • Investigate and diagnose Ca Oesophagus • Suggest management plan • Counsel the patient about the prognosis		
35	**Oesophagus**	• The learners shall be able to diagnose and treat Dysphagia	• Identify factors in the patient history that are useful in diagnosing the etiology of dysphagia. • List symptoms that suggest oropharyngeal dysfunction. • List valuable tests in the diagnostic evaluation of dysphagia. • Specify diagnostic tools for dysphagia	• Take history of a patient with dysphagia • Perform clinical examination of a patient with dysphagia • Propose management plan	CBL/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

36	**Disorders of salivary glands**	• The learners shall be able to diagnose and	• Anatomy Infections, obstruction, benign and malignant neoplasms of the	• Take history of a patient with swelling on sites of salivary glands	Lecture/SDL	MCQ/SEQ/SAQ/ OSPE/Long

		treat Disorders of salivary glands	salivary glands Recognize the clinical features of infections of the salivary glands. • List the relevant information to be elicited during history taking from patients with salivary gland disorders. • Suggest relevant investigations to help in the diagnosis of salivary gland disorders. Evaluate the results of the investigations done for disorders of the salivary glands.	• Perform clinical examination of a patient with swelling relevant to salivary gland • differentiate on clinical grounds between infection, obstruction, benign and malignant neoplasms of the salivary glands. • Describe treatment procedures and their indications and potential complications of treatment procedures.		case/ short case
37	**Mass neck**	• The learners shall be able to diagnose and treat Mass in neck	• Anatomy of neck • Types of neck masses • neoplastic, inflammatory, congenital • Devise a systematic plan to evaluate a patient with a neck mass • Classify neck masses, according to etiology • Suggest special examinations of the nasopharynx and larynx where required	• Take history of a patient with a neck mass • Perform clinical examination of a patient with a neck mass • Diagnose neck mass based on history, clinical examination basic laboratory tests and radiologic examinations • Propose a management plan	CPC/SDL	MCQ/SEQ/SAQ/ OSPE/Lo ng case/ short case

38	**Breast Lump**	• The learners shall be able to diagnose and treat Breast Lump	• Anatomy of breast • Benign Breast Disease • CA Breast Classify Benign Breast Disease and CA Brest • Enumerate the Diagnostic investigations of Breast Diseases/ lump • Describe the basic concepts of anatomy and lymphatic drainage of the area.	• Take history of a patient with breast lump • Perform clinical examination of a patient with breast lump • Diagnose breast disease based on history and clinical presentation • Suggest management plan for Ca breast and its complications	Lecture & bedside teaching /CBL/SDL	MCQ/SE Q/SAQ/ OSPE/Long case/ short case

39	**Thyroid swelling**	• The learners shall be able to diagnose and treat Thyroid swelling	• Anatomy Simple Goiter Toxic Goiter/ Thyrotoxicosis Thyroid Nodule Ca Thyroid • Describe the clinical presentation of simple and toxic goiter • Suggest the diagnostic investigations needed to rule out other thyroid conditions	• Take history of a patient with neck /thyroid swelling • Perform clinical examination of a patient with neck	Lecture & bedside teaching/SDL /CBL	MCQ/SE Q/SAQ/ OSPE/Lo

			• Enumerate the Treatment options for goiter • Classify Ca Thyroid • List tumor markers for Ca Thyroid	/thyroid swelling • Diagnose Ca thyroid based on clinical presentation and investigations • Propose management plan for goiter and its complications. • Counsel the patient about the progression of disease		
40	**Parathyroid glands**	• The learners shall be able to diagnose and treat Disorders of Parathyroid glands	• Describe the various locations of parathyroid gland • Describe clinical features of disorders of parathroid	• Take history of a patient of thyroid • Perform clinical examination of a patient of thyroid • Diagnose disorders of parathyroid based on clinical presentation	Lecture/CBL/ SDL	MCQ/SE Q/SAQ/ OSPE/Lo ng case/ short case

				and investigations • Develop management plan		
41	**Adrenal glands**	• The learners shall be able to diagnose and treat Disorders of Adrenal glands	• Describe various hormones and disorders of adrenal glands • Narrates types of adrenal tumours	• Take history of a patient • Perform clinical examination of a patient • Diagnose disorders of adrenal glands based on clinical presentation and investigations • Develop management plan	Lecture/CBL/ SDL	MCQ/SE Q/SAQ/ OSPE/Lo ng case/ short case

42	**Acute Abdomen**	• The learners shall be able to diagnose and treat ○ Acute intestinal obstruction ○ Acute peritonitis	• Describe the symptoms, signs, and differential diagnosis for patients presenting with an acute abdomen. • Discuss the investigations and management of patients with acute abdominal pain	• Take history of a patient with acute abdomen • Perform clinical examination of a patient with acute abdomen • Choose the appropriate imaging in the	Lecture/CBL & bedside teaching/SDL	Lecture/CBL & bedside teaching/SDL

		○ Acute Appendicitis ○ Acute Cholecystitis ○ Intestinal perforation ○ Abdominal aortic aneurysm ○ Acute Diverticulitis. ○ Duodenal ulcer perforation	● Generate differential diagnoses for small bowel obstruction. ● Summarize complications that can result from small bowel obstruction emergency surgery. ● Demonstrate understanding of pathological basis of acute appendicitis, acute pancreatitis, acute cholecystitis, abdominal aortic aneurysm and diverticular disease.	investigation of acute abdominal pain ● Come up with the diagnosis and management plan ● Assess the indications for surgery and other treatment options		
43	**Chronic abdomen**	● The learners shall be able to diagnose and treat ○ Mass Abdomen ○ Colorectal Carcinoma ○ Intestinal tuberculosis	● Outline relevant investigations for abdominal swelling due to various pathological causes. ● Describe the aetiology, presentation and management of intestinal obstruction. ● provide the pathophysiological basis of a swelling in the epigastrium ● Discuss the pathological basis of Ca colon ● Elaborate specific Tumor markers ● Elaborate the staging of ca colon	● Take history of a patient with mass abdomen ● Perform clinical examination of a patient with mass abdomen ● Generate diagnosis and differential diagnosis, and management of patients presenting with abdominal pain or mass. ● Diagnose TB based on clinical features and investigations	CBL & Bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Lo ng case/ short case

			● Explain the Pathophysiological basis of abdominal TB ● Formulate a differential diagnosis ● evaluate the role of anti-tuberculous therapy in patient management	● Justify the use of appropriate surgical procedures in management of this disease.		
44	**Abdominal Wall, Hernias**	● The learners shall be able to diagnose and treat ○ Inguinal Hernia ○ Femoral hernia ○ Ventral Hernias	● Differentiate between direct, indirect, incarcerated and strangulated hernias ● Develop a differential diagnosis in a case of a mass in the inguinal or femoral region, or in the scrotum, making reference to those features which may distinguish hernias from other soft tissue masses. ● Discuss the various investigations that help in diagnosis ● Describe the principles of a surgical repair of a direct and indirect inguinal hernia ● Describe the complications of untreated abdominal wall defects	● Take history of a patient with mass in the inguinal or femoral region, or in the scrotum ● Perform clinical examination of a patient with mass in the inguinal or femoral region, or in the scrotum ● Propose a management plan	CBL & Bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

45	**Liver – SOL liver**	• The learners shall be able to diagnose and treat	● Generate differential diagnosis of SOL Liver ● Develop plan for diagnosis, treatment and	Take history of a patient with SOL liver Perform clinical	Lecture/SDL	MCQ/SEQ/SAQ/ OSPE/Long

		○ Amoebic liver, Hydatid disease & Liver Carcinoma	prevention of SOL liver and its complications	examination of a patient with SOL liver		case/ short case
46	**Stones in biliary tract**	• The learners shall be able to diagnose and treat Cholelithiasis	● Discuss the Etiology of Cholelithiasis with relevance to anatomical and pathological basis ● Understand the Clinical presentation of Cholelithiasis ● Elaborate the clinical significance of Charcot triangle	● Take history of a patient with cholelithiasis ● Perform clinical examination of a patient with cholelithiasis ● Diagnose cholelithiasis ● Manage cholelithiasis and its complications ● Counsel the patient about planning surgery before it leads to complications ● Take history of a patient with obstructive jaundice Perform clinical examination of a patient with obstructive jaundice ● Diagnose obstructive jaundice on the basis of clinical presentation and diagnostic tests	Lecture & bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Lo ng case/ short case
		• The learners shall be able to diagnose and treat Obstructive jaundice	● Provide physiological and anatomical basis of different types of jaundice			

				• Plan management of obstructive jaundice and its complications		
47	**Inflammation**	• The learners shall be able to diagnose and treat Acute and Ch Cholecystitis	• Discuss causes of Cholecystitis • Relate structural anomalies and • pathological changes to predisposition to cholecystitis • Discuss the Signs and Symptoms	• Take history of a patient with chronic cholecystitis • Perform clinical examination of a patient with chronic cholecystitis • diagnose and manage the case	CBL & Bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Lo ng case/ short case
48	**Laparoscopic Surgery**	• The learners shall be able to conceptualise Principles of Laparoscopic Surgery	• List the general principles of laparoscopic surgery and its complications		Lecture/ Demo/SDL	MCQ/SEQ/SAQ/ OSPE/Lo ng case/ short case

49	**Upper GI bleed/ Hematemesis**	• The learners shall be able to diagnose and treat Dduodenal ulcer, gastric ulcer, gastric erosions, esophageal varices,	• State the pathophysiological basis of common causes of upper GI bleeding • Enumerate the Criteria for admission of Upper GI Bleed	• Diagnose Upper GI Bleed • Discuss the Immediate Management of Upper GI Bleed • Anticipate the Complications and	Lecture /CPC/SDL	MCQ/SEQ/SAQ/ OSPE/Lo ng case/ short case

		○ Mallory Weiss tear and oesphagogastric cancer.	● Elaborate the preventive methods of Upper GI Bleed	plan their management		
50	**Tumors**	● The learners shall be able to diagnose and treat ○ Ca stomach ○ Ca Pancreas	● Discuss the causes of Ca stomach ● Discuss the warning signs which lead to ● the diagnosis of Ca stomach ● Discuss the presenting complaints of Ca stomach ● list the investigations needed to diagnose the case ● Describe the staging and grading of cancer. ● Discuss the etiology of Ca Pancreas ● Discuss the Clinical Presentation of Ca Pancreas ● Enumerate the Signs and symptoms of Ca pancreas ● Discuss diagnostic criteria for Ca Pancreas ● stage the cancer ● Plan the treatment of Ca Pancreas and its complications	● Take history of a patient with Ca stomach ● Perform clinical examination of a patient with Ca stomach ● Diagnose ca stomach ● Describe the management plan for a patient with Ca stomach ● Take history of a patient with Ca Pancreas ● Perform clinical examination of a patient with Ca Pancreas ● Diagnose and give management plan	Lecture & bedside teaching /CBL/SDL	MCQ/SEQ/SAQ/ OSPE/ Long case/ short case

51	**Inflammation**	• The learners shall be able to diagnose and treat Acute and Ch Pancreatitis	• Enumerate causes of pancreatitis and its predisposing factors • Elaborate the Diagnosis of pancreatitis based on its signs and symptoms • Manage pancreatitis and its complications	• Take history of a patient with Pancreatitis • Perform clinical examination of a patient with pancreatitis • Diagnose pancreatitis using Ranson and Glasgow criteria	CBL & Bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/ Long case/ short case

52	**Appendix/Colon/Rectum Anal Canal**	• The learners shall be able to diagnose and treat ○ Appendicitis, diverticular disease, colorectal cancer haemorrhoids, anal fissures and inflammatory bowel disease	• Explain the aetiopathology of the common causes of rectal bleeding. • List the common causes of diarrhoea and constipation. Relate the signs and symptoms for colorectal cancer and its underlying pathology	• Take history of a patient with change in bowel habit / rectal bleeding • Perform clinical examination of a patient with change in bowel habit / rectal bleeding • Diagnose and manage rectal bleeding, including relevant investigations and the indications for surgical intervention.	Lecture & bedside teaching/CBL /SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

53	**Abscess/Fissure**	• The learners shall be able to diagnose and treat Perianal Abscess Anal fissure	• Corelate the etiology and pathophysiology of perianal abscess/ fissure to its clinical presentation • Review the surgical anatomy of anal region and classification of anal abscess/ fissure with perianal abscess.	• Take history of a patient with perianal abscess • Perform clinical examination of a patient with abscess/ fissure • make an appropriate diagnosis and differential diagnosis on the basis of clinical presentation • Develop a plan for management and postop care of the patient	Lecture & bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case
54	**Fistula**	• The learners shall be able to diagnose and treat Fistula in ano	• Explain the etiology and pathophysiology of anal fistula • Describe the clinical features of fistula in ano	• Take history of a patient with anal fistula • Perform clinical examination of a patient with anal fistula • make an appropriate differential diagnosis • Develop a plan for work up,	Lecture & bedside teaching/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

				management and postop care of a patient with fistula in ano		
PLASTIC SURGERY						
55	**Plastic And Reconstructive Surgery**	● The learners shall be able to Acquire skills for Reconstruction, flaps, grafts	● Discuss the anatomy and physiology of tissues used in reconstruction ● Discuss types of skin grafts and their use in surgery ● Discuss types of flaps and their use in surgery ● Discuss the use of Plastic Surgery to manage difficult and complex tissue loss.	● Take history of a patient needing the surgery ● Perform clinical examination of the wound site	Lecture/ Demo/ SDL	MCQ/SEQ/SAQ/ OSPE/
UROLOGY						
56	**Haematuria**	● The learners shall be able to diagnose and treat ○ Haematuria originating at different levels of urinary tract ○ TCC ○ RCC ○ Ca Pancreas ○ Urolithiasis	● Identify basis for diagnosing hematuria. ● Recognize those pigments that may discolor the urine, mimicking hematuria. ● Enumerates the causes of haematuria ● justify the significance of the information gathered from the palpation of the prostate rectally. ● List the radiological investigations available for	● Take history of a patient with hematuria ● Perform clinical examination of a patient presenting with hematuria ● Give a differential diagnosis for hematuria originating in the different anatomical parts of the urinary tract	Lecture & bedside teaching/ SDL	Lecture & bedside teaching/SDL Long case/ short case

			the assessment of the urinary tract.	• Manage the patient with visible and non-visible hematuria		
57	**Urinary Obstruction**	• The learners shall be able to diagnose and treat ○ Urinary Obstruction ○ Acute urethral obstruction ○ Bladder Outlet Obstruction ○ Urolithiasis ○ Prostate ○ Stricture ○ Meatal stenosis	• Describes the causes of BOO • List the pathophysiology and complications of BOO • Describe the different Levels of BOO • Differentiate between Ac and Ch BOO • Diagnostic modalities	• Take history of a patient with BOO • Perform clinical examination of a patient presenting with BOO • Manage BOO in emergency • Reach at the cause of BOO and gives definite management plan	Lecture & bedside teaching/SDL	Lecture & bedside teaching/SDL Long case/ short case
58	**Urolithiasis**	• The learners shall be able to diagnose and treat urolithiasis	• Etiology of urolithiasis • Types of urinary stones • Pathophysiology of stones • Diagnosis • Treatment modalities State the risk factors for urinary stones • Describe the types of urinary stones • Clinical features of urinary stones • Describe Complications of urinary stones	Take history of a patient with urinary stones Perform clinical examination of a patient presenting with urinary stones Give diagnosis' Management plan and measures to prevent recurrence	Lecture & bedside teaching/SDL	Lecture & bedside teaching/SDL Long case/ short case

59	**Tumours**	• The learners shall be able to diagnose and treat ○ Renal cell carcinoma and ○ Transitional cell carcinoma ○ Basal cell carcinoma	• Review the epidemiology and causes • List the risk factors for carcinoma of urinary tract • Outline the initial diagnostic workup for patients suspected of having carcinoma of urinary system • Discuss the grading and staging of carcinoma of urinary tract • Suggest the potential options for treatment of carcinoma of urinary tract.	• Take history of a patient with carcinoma of urinary tract • Perform clinical examination of a patient with carcinoma of urinary tract • Differentiate between obstruction at different levels of the urinary tract based on history, Clinical features and diagnostic modalities • Plan the general management and pre- operative workup of patient • Counsel the patient about the treatment and prognosis of disease	Lecture/ CBL/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case
60	**Urological emergencies**	• The learners shall be able to diagnose and treat ○ Ac Urinary retention ○ Renal/ureteric colic	• Discuss the presenting features, signs and symptoms of urological emergencies • Study the classification of urological emergencies based on etiology	• Generate a prioritized differential of the most important and likely causes of a patient's emergency by taking accurate history, clinical	Lecture/ CBL/SDL	MCQ/SEQ/SAQ/ OSPE/

		○ Testicular torsion ○ Calculous anuria ○ Priapism ○ Penile Fractures Genitourinary trauma	● Discuss the appropriate investigations leading to a definite diagnosis	examination and relevant investigation ● Devise a management plan according to clinical presentation		

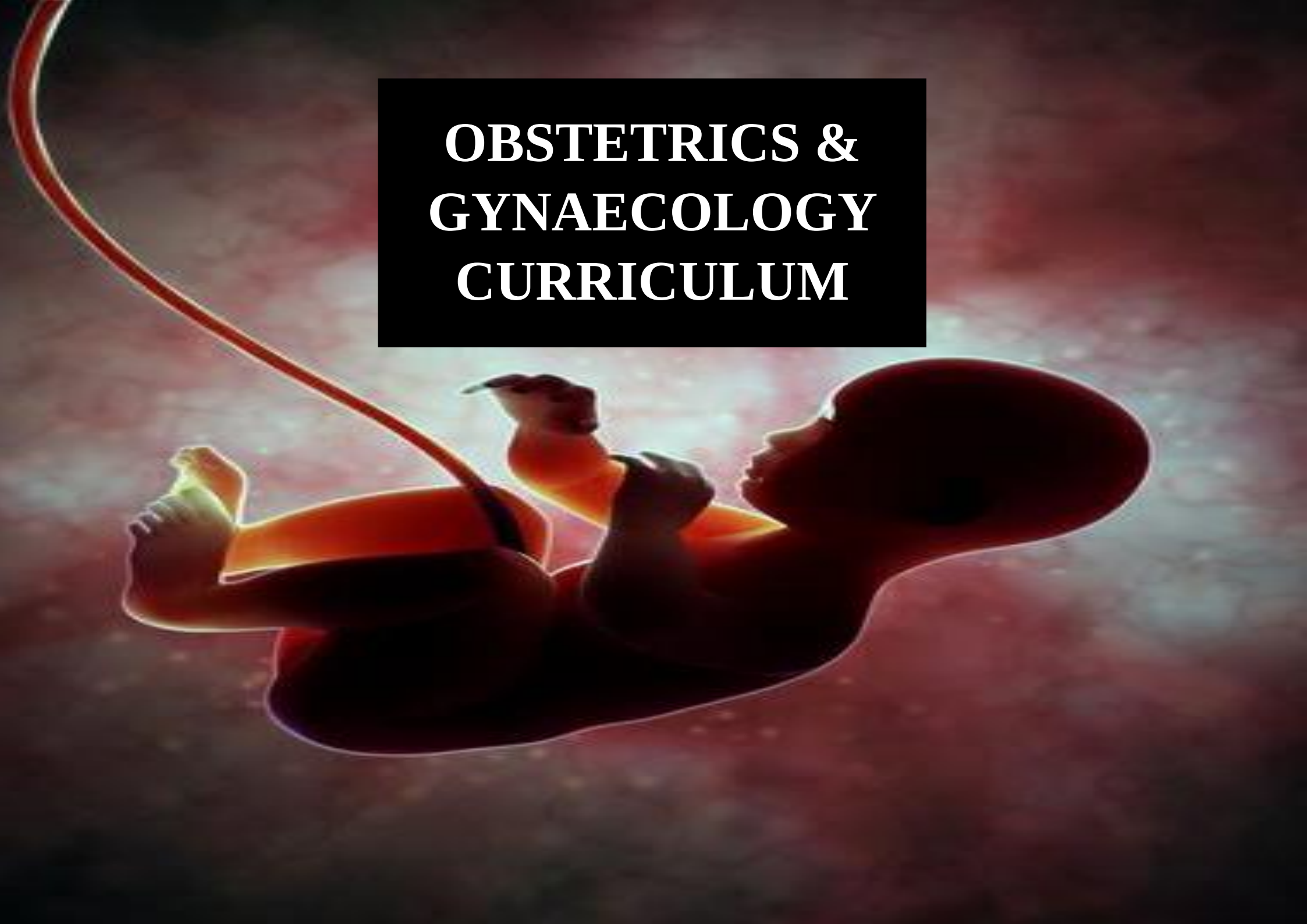
ANAESTHESIA						
61	**Applied Respiratory Mechanics**	• The learners shall be able to apply the mechanism of breathing & pulmonary ventilation	• Anatomical and physiological functions of the respiratory cycle, including O2 and CO2 exchange and ph regulation	Understanding of negative and positive respiratory pressures	Create a flow chart and diagram illustrating how respiratory mechanics is controlled	MCQs Illustrations Spirometer
62	**Cardiovascular System (CVS) significance**	• The learners shall be able to describe the cardiac cycle, its conduction system	• Discuss cardiac output, and venous return • Discuss blood pressure and its regulation Explain the physiological anatomy of the cardiac muscle	• Describe the properties of the cardiac muscle • Describe the physiologic basis coronary circulation	Cardiac cycle and conduction pathways correlation	MCQs Illustrations Pulse rhythm and BP apparatus

63	**Renal System And pH Regulation**	• The learners shall be able to describe the renal physiology in regulating the pH regulation during the altered body environment	• Understand the functions of renal system in maintaining the electrolytes & fluid balance at cellular and circulatory levels	Overview of pH regulation	Renal Structural and functional integrated role	MCQs Animated videos Calculatory practice
64	**PNS (Peripheral Nervous system)in relation to Musculoskeletal and pain physiology**	• The learners shall be able to differentiate and describes the PNS & the central nervous system (CNS) to grasp the musculoskeletal and pain physiology	• Understanding of neuro-muscular junction and pain sensation transmission		Neural pathways and charting the neurotransmitters	MCQs OSCE

65	**Clinical representation of Undergraduates in Evaluation and emergency response**	• The learners shall be able to do examination, evaluation emergent preparation and responses • Basic life support	• To understand the history taking & examinations of trauma & critical ill patients	Knowledge of steps and actions taken in emergency response	• Management & Development of behavior, medical ethics, attitude towards patients and attendants while working in emergency and trauma • BLS drills	MCQs Charts Drills
66	**General Anaesthesia**	• The learners shall be able to acquire skills of administering, decontamination & sterilizating General Anaesthesia	• Differentiate between different techniques of anesthesia and airway management	Monitoring the patients	Lecture/ Demo/SDL	MCQs OSCE SEQs
67	**ACLS and artificial ventilatory support**	• The learners shall be able to Resuscitate an emergency and initial ventilatory support	• Understandings of the Steps and sequence of managing a critical patient		Flow charts International standards Drill	MCQs TOACS Skills assessment
68	**Regional & Spinal Anaesthesia**	• The learners shall be able to administer Regional & Spinal Anaesthesia	• Discuss the local and regional anesthesia techniques • List the various techniques for regional	Monitor the patient under regional/spinal anesthesia	Lecture/ Demo/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

			anesthesia administration • Choose appropriate type of anesthesia for various surgical procedures • Discuss the pre-anesthesia workup required for regional/spinal anesthesia • List the complications resulting from regional/spinal anesthesia			
69	**Pain Relief**	• The learners shall be able to administer Pain Relief	• Relate different types of pain to its pathophysiology. • Outline various methods for pain relief in benign and malignant diseases • Discuss the various methods used for pain relief in different diseases	• Take history of a patient with pain • Perform clinical examination of a patient with pain • Counsel the patient with pain	Lecture/ Demo/SDL	MCQ/SEQ/SAQ/ OSPE/Long case/ short case

OBSTETRICS & GYNAECOLOGY CURRICULUM



S. No	TOPIC/ THEMES	LEARNING OUTCOMES	LEARNING OBJECTIVES	INSTRUCTIONAL STRATEGIES	ASSESSMENT TOOLS
1.	**Maternal Physiology of Pregnancy, Labour and Lactation**	● The learners shall be able to ○ Describe the physiological changes during pregnancy, labour and puerperium, correlate with clinical features, formulate management plans and counsel the pregnant women about the treatment options.	● Compare normal physiological changes of body systems in pregnant and non-pregnant patients. ● Correlate the pathophysiology with clinical presentation of woman during pregnancy, labour and lactation. ● Formulate the management plan according to the clinical scenario. ● Demonstrate clinical evaluation of pregnant women presenting with symptoms associated with physiological changes during pregnancy, labour and lactation. ● Counsel the patient presenting with clinical features associated with physiological changes during pregnancy, labour and lactation.	Flipped Classroom, SGD, case presentation, Bedside teaching, role plays, self-directed learning, clinical methods.	MCQ, SAQ, OSCE, Mini CEX
2.	**Preconception Care, Antenatal Care**	● The learners shall be able to ○ Discuss the role of preconception care, antenatal care, prenatal diagnosis, perform clinical evaluation, plan management and counsel them about treatment plan.	● Discuss the preconception plan of care of apparently healthy women. ● Plan a schedule of antenatal visits for a normal pregnant woman. ● Correlate clinical picture with pathophysiology during prenatal diagnosis ● Summarize the possible adverse sequelae associated with the perinatal infections. ● Formulate management plan for minor pregnancy complications in antenatal clinic. ● Demonstrate clinical evaluation of patients requiring preconception care and antenatal booking. ● Counsel the patient about preconceptual care, antenatal visits (no. of visits, screening, supplementation, immunization and follow up), prenatal diagnosis and its impact on pregnancy	SGD, case presentation, Bedside teaching, role plays, self-directed learning, clinical methods	MCQ, SAQ, OSCE, Mini CEX

			outcome.		
3	**Fetal Growth Abnormalities**	● The learners shall be able to ○ Discuss the differential diagnosis of obstetric disorders based on clinical features, interpret investigations, formulate a management plan for women and counsel them for treatment options.	● Determine gestational age accurately ● Identify fetus which is large or small for gestational age ● Enlist causes for small and large for gestational age babies ● Enlist investigations to confirm growth abnormalities and for elucidating underlying cause ● Manage a case of small for gestational age pregnancy based on Doppler of umbilical artery and biophysical profile ● Manage a case of large for gestational age pregnancy	SGD, case presentation, Bedside teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX
4	**Multiple pregnancy**	● The learners shall be able to ○ Discuss the differential diagnosis of obstetric disorders based on clinical features, interpret investigations, formulate a management plan for women	● Understand classification of multiple pregnancies ● Identify risk factors for multiple pregnancies and why prevalence is increasing ● understand the increased complications that occur in multiple pregnancies ● Perform clinical examination and interpret ultrasound findings in patients with multiple pregnancies ● Formulate a management plan for antenatal care and delivery of women with multiple pregnancies	SGD, case presentation, Bedside teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX

		and counsel them for treatment options.			
5	**Liqour volume abnormalities**	● The learners shall be able to ○ Discuss the differential diagnosis of obstetric disorders based on clinical features, interpret investigations, formulate a management plan for women and counsel them for treatment options.	● Understand physiology of amniotic fluid ● Identify causes for liquor abnormalities ● Enlist complications that occur in pregnancies with liquor abnormalities ● Diagnose a case with liquor abnormalities based on history, clinical examination and ultrasound findings ● Formulate a management plan for antenatal care and delivery of women with liquor abnormalities	SGD, case presentation, Bedside teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX
6	**Fetal monitoring**	● The learners shall be able to ○ Discuss and	● Enlist the various methods (FKC charting, CTG, USG, Doppler) of antepartum and intrapartum fetal monitoring	SGD, case presentation, Bedside teaching,	MCQ, SAQ, OSCE, Mini CEX

		demonstrate appropriate fetal monitoring techniques for antenatal and intrapartum care of obstetric patients.	● Understand the principles and benefits of various methods of fetal monitoring ● Enlist the uses of ultrasound in antepartum fetal monitoring ● Perform and interpret normal and abnormal CTG ● Interpret Biophysical profile ● Interpret Doppler ultrasound in monitoring and guiding the management of high-risk pregnancies	role plays, self-directed learning	
7	**Preterm labour**	● The learners shall be able to ○ Discuss the differential diagnosis of preterm labour based on clinical features, interpret investigations, formulate a management plan for women and counsel them for treatment options.	● What is preterm labour and to differentiate between suspected, diagnosed and established preterm labour ● Identify risk factors for preterm labour ● Enlist causes of preterm labour ● Clinical assessment of preterm labour ● How to investigate to reach diagnosis ● Outline management plan	SGD, case presentation, Bedside teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX
8	**Infections in pregnancy**	● The learners shall be able to ○ Discuss the differential diagnosis of infection in pregnancy based on clinical	● Enlist infections causing congenital abnormalities ● What are the screening methods for these infections ● Which investigations are included in routine pregnancy screening ● What are the principles of their management? ● What are the consequences of perinatal infections on the developing fetus	SGD, case presentation, Bedside teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX

		features, interpret investigations, formulate a management plan for women and counsel them for treatment options.			
9	**Post date pregnancy**	● The learners shall be able to ○ Discuss the differential diagnosis of obstetric disorders based on clinical features, interpret investigations, formulate a management plan for women and counsel them for treatment options.	● Calculate accurate gestational age of patient using dating scan ● Calculate bishop score of patients ● Enlist and describe methods of induction of labour ● Monitor labour using Partograph ● Demonstrate shoulder dystocia on mannequin	SGD, case presentation, Bedside, teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX

10	**Medical Disorders in Pregnancy (cardiac, epilepsy, thyroid, liver, renal)**	● The learners shall be able to ○ Differentiate between medical disorders of pregnancy based on clinical features, interpret investigations, rationale for management plan and counsel them for treatment options.	● Know effects of common medical disorders on maternal and fetal outcome ● Know effects of pregnancy on common medical disorders ● Take history to find out the cause and severity of various medical disorders in pregnancy ● Perform relevant examination and pick up signs of medical disorders ● Investigate various medical disorders in pregnancy ● Interpretation of investigations ● Outline the management plan according to the disease ● Counsel a pregnant patient about a medical disorder in pregnancy	SGD, case presentation, Bedside teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX

11	**Diabetes in pregnancy**	● The learners shall be able to ○ Differentiate between medical disorders of pregnancy based on clinical features, interpret investigations, rationale for management plan and counsel them for treatment options	● Screen patient for diabetes in pregnancy ● Explain the oral glucose tolerance test and its interpretation to the patient ● Plan investigations for women with diabetes ● Outline the management plan ● Counsel women regarding blood sugar control, diet and exercise ● Maintain follow up of patient	SGD, case presentation, Bedside teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX

12	**Anaemia in pregnancy**	● The learners shall be able to ○ Differentiate between medical disorders of pregnancy based on clinical features, interpret investigations, rationale for management plan and counsel them for treatment options.	● Know effects of anemia on maternal and fetal outcome ● Know effects of pregnancy on anemia ● Take history to find out the cause and severity of anemia in pregnancy ● Perform relevant examination and pick up signs of anemia ● Investigate anemia in pregnancy ● Interpret the patterns of abnormality found on full blood count that are indicative of iron deficiency anemia, beta thalassemia minor, vit. B12 or folic acid deficiency anemia ● Outline the management plan	SGD, case presentation, Bedside teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX

13	**Hypertensive disorders in pregnancy**	● The learners shall be able to ○ Differentiate between medical disorders of pregnancy based on clinical features, interpret investigations, rationale for management plan and counsel them for treatment options.	1. Categorize a hypertensive patient in pregnancy according to standard classification 2. Identify women at risk of hypertensive disorders of pregnancy and how and when to start prophylactic treatment. 3. Differentiate between gestational hypertension, pre-eclampsia and eclampsia. 4. Diagnosis and identify fetal and maternal complications of gestational hypertension, pre-eclampsia and eclampsia 5. Investigate gestational hypertension and pre-eclampsia. 6. Formulate treatment plan of gestational hypertension 7. Critically appraise the drugs used in the management of pre-eclampsia. ● Management of pre-eclampsia & eclampsia	SGD, case presentation, Bedside teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX
14	**Management Of Normal/Abnormal Labour,**	● The learners shall be able to ○ Differentiate between normal and abnormal labour, formulate a management plan for women with normal/ abnormal labour, counsel them for feto-maternal monitoring and treatment options.	● Diagnose and manage normal and abnormal labour. ● Discuss principles of management in the antenatal period and in labor for malpresentations. ● Plot and interpret labour care guide LCG of normal laboring women. ● Demonstrate mechanism of labour, normal delivery on manikin. ● Predict fetal distress on CTG. ● Assemble the Ventouse apparatus and demonstrate assisted vaginal delivery. ● Communicate clearly and effectively to a laboring woman and her partner.	SGD, case presentation, Bedside teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX

15	**Puerperium and Care of newborn**	● The learners shall be able to ○ Diagnose common problems in puerperium, plan management for women with puerperal issues and counsel them for treatment options	● Compare and contrast the benefits of breast feeding and bottle feeding. ● Appraise postnatal complications that cause maternal deaths. ● Critically appraise the factors leading to high MMR in Pakistan and ways and means of reducing it. ● Formulate a management plan for a woman with puerperal pyrexia and puerperal sepsis. ● Construct an algorithm for neonatal resuscitation. ● Formulate a management plan for neonatal problems. ● Demonstrate clinical evaluation of woman with puerperal problems. ● Demonstrate breast examination of a women in puerperium. ● Demonstrate neonatal resuscitation steps. ● Counsel a woman with mastitis or breast abscess about treatment options and complications.	SGD, case presentation, Bedside teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX
16	**Obstetric Emergencies**	● The learners shall be able to ○ Diagnose common obstetrical emergencies, formulate management plans for such emergencies, perform emergency drills and counsel them about early warning signs and	● Discuss the general principles of management of maternal collapse and obstetric shock. ● Apprise the principles of specific management of the following obstetric emergencies: ● • Obstetric hemorrhage ● • Eclampsia ● • Cord Prolapse ● Obstructed labor ● Interpret FBC, Electrolytes, coagulation screen and Blood gases, an input and output record. ● Evaluate the investigations and management of patients with antepartum hemorrhage ● Perform drill to resuscitate pregnant patients in shock. ● Counsel a patient's relatives regarding the patient,	SGD, case presentation, Bedside teaching, role plays, self-directed learning	MCQ, SAQ, OSCE, Mini CEX

		debrief about the management performed.	the proposed management and prognosis. ● Counsel a woman regarding the bad news of her fetal death because of placental abruption.		
17	**Obstetric procedures**	● The learners shall be able to ○ Discuss and demonstrate the indications, prerequisites, contraindications, complications and informed consent for essential obstetric procedures	Obstetric procedure list for undergraduates: 1. Normal Vaginal Delivery 2. Episiotomy and its repair 3. Operative Vaginal Delivery, both forceps and vacuum 4. Caesarean Section ● Enlist indications for these procedures ● Describe the steps of these procedures ● Enlist their complications	SGD, Bedside teaching, self-directed learning, flipped classroom	MCQ, SAQ/SEQ, OSCE
18	**Abnormal uterine bleeding**	● The learners shall be able to ○ Describe normal hormonal changes during a menstrual cycle, pathophysiology of menstrual disorders, formulate management plans for these women and counsel them about available treatment options.	● Describe pattern of abnormal uterine bleeding ● List the cause of abnormal uterine bleeding using the PALM-COIEN classification ● Investigate abnormal uterine bleeding ● Outline the management plan and follow up	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX

19	**Heavy Menstrual Bleeding**	● The learners shall be able to ○ Describe normal hormonal changes during a menstrual cycle, pathophysiology of menstrual disorders, formulate management plans for these women and counsel them about available treatment options.	● Differentiate between heavy menstrual bleeding and abnormal uterine bleeding using clinical data. ● List the causes of heavy menstrual bleeding according to age group ● Investigate HMB ● Outline the management plan ● Formulate a flow diagram for the treatment of heavy menstrual bleeding.	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX
20	**Amenorrhea**	● The learners shall be able to ○ Describe normal hormonal changes during a menstrual cycle, pathophysiology of menstrual disorders, formulate management plans for these women and counsel them about available treatment	● Describe the features of normal menstrual cycle and the ovarian and endometrial changes that accompany them. ● Describe normal change of puberty Differentiate between primary and secondary amenorrhea ● Describe a scheme for classifying the causes of amenorrhea based on the primary site of problem ● Discuss appropriate investigations to reach a diagnosis of primary or secondary amenorrhea ● Outline a management plan for the patient depending upon the cause	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX

		options.			
21	**Adolescent gynecology**	● The learners shall be able to ○ Describe pathophysiology of disorders of puberty, interpret investigations and formulate management plans	● Propose the Differential diagnosis of primary amenorrhea. ● Investigate Primary amenorrhea ● Outline the management plan ● Formulate a flow diagram for the causes of primary amenorrhea. ● Formulate flow diagram for the management of precocious puberty and precocious pseudo-puberty.	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX
22	**Early Pregnancy Problems**	● The learners shall be able to ○ Describe the early pregnancy problems, their diagnostic criteria, complications, management plans and counsel them about treatment options	● Critically appraise the treatment available for different types of miscarriages. ● Appraise the principles of management of benign and malignant Trophoblastic disease. ● Take a relevant gynecological history in a woman complaining of vaginal bleeding and/ or abdominal pain in early pregnancy. ● Counsel a patient regarding follow up for miscarriage, ectopic pregnancy and benign Trophoblastic disease.	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX
23	**Subfertility**	● The learners shall be able to ○ Describe the causes of primary and secondary subfertility, evaluate a couple with subfertility, plan	● Draw a graph of the changes in serum levels of estrogen, progesterone, LH and FSH during the menstrual cycle. ● Appraise the general principles of treatment of infertile couples. ● Perform clinical evaluation of a couple presenting with subfertility. ● Interpret the following: ● • Female follicular phase hormonal profile	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX

		management and counsel them about available options.	● Female luteal phase progesterone changes ● • Male semen analysis. ● Explain the principles of dealing with sensitivity and sympathetically with sub fertile couples.		
24	**Menopause And Post Reproductive Health**	● The learners shall be able to ○ Describe the hormonal changes occurring at the time of climacteric and menopause, correlate them with the clinical picture, formulate management plan and counsel them for treatment options.	● Critically evaluate the different regimens of hormonal therapy. ● Formulate a management plan for menopausal women with history of breast or ovarian or uterine malignancy, DVT, endometriosis. ● Demonstrate clinical evaluation of patients with menopause. ● Counsel the patient about health effects of menopause and its management. ● Analyze the ethical issues relevant to prescribing hormone replacement therapy and their side effects.	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX
25	**Genitourinary Infections**	● The learners shall be able to ○ Differentiate between lower and upper genital tract infections based on clinical evaluation and diagnostic criteria, plan management for	● Formulate management plans for women with lower and upper genital tract infections. ● Elicit a sexual history from a patient considering the ethical and communication skills aspect. ● Analyze the ethical issues pertinent to confidentiality and partner tracing in cases of sexually transmitted infections.	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX

		such women and counsel them for treatment options with the assurance of confidentiality.			
26	**Contraception**	● The learners shall be able to ○ Describe the mechanism of action of various methods of contraception, offer different methods according to patient needs after ruling out any contraindications and taking proper informed consent.	● Formulate a management plan selecting the most appropriate method of contraception according to patient wishes and eligibility. ● Demonstrate insertion of various contraceptive devices and implants. ● Counsel women requesting for contraception. ● Analyze the ethical issues relevant to contraception in the background of women health and wishes.	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom, OMP,	MCQ, SAQ, OSCE, Mini CEX
27	**Pelvic Mass**	● The learners shall be able to ○ Describe the benign and malignant lesions based on clinical features, evaluate diagnostic criteria, plan management and	● Provide a differential diagnosis of Adnexal masses. ● Enlist types of ovarian tumors. ● Enlist appropriate tumor markers relevant to age groups or presentation. ● Enlist appropriate tumor markers for different ovarian tumors. ● Outline the management plan for a given patient with adnexal mass. ● Formulate a flow diagram for the management	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX

		counsel them regarding fertility sparing and non-sparing treatment options.	of adnexal masses in: a. young adolescent b. Reproductive age women c. Postmenopausal women.		
28	**Cervical Carcinoma**	● The learners shall be able to ○ Describe the benign and malignant lesions based on clinical features, evaluate diagnostic criteria, plan management and counsel them regarding fertility sparing and non-sparing treatment options.	● Enlist risk factors for cervical carcinoma ● Describe the screening method of cervical carcinoma ● Enlist preventive strategies of cervical carcinoma ● Describe FIGO staging of cervical cancer? ● Outline management of cervical carcinoma according to staging.	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX
29	**Post-menopausal Bleeding**	● The learners shall be able to ○ Describe the benign and malignant lesions based on clinical features, evaluate diagnostic criteria, plan management and counsel them	● Propose the differential diagnosis of post-menopausal bleeding (PMB). ● Investigate PMB ● Outline the management plan ● Formulate a flow diagram for the treatment of post-menopausal bleeding. ● Formulate a flow diagram for the stage-wise management of endometrial cancer	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX

		regarding fertility sparing and non-sparing treatment options.			
30	**Urogynaecology**	● The learners shall be able to ○ Describe the anatomical landmarks and pelvic supports of uterus, correlate clinical features with pathophysiology, evaluate the diagnostic criteria and formulate management plans. Counsel the women with these problems about treatment options.	● Formulate management plans for women presenting with urinary incontinence, urinary tract infections and urinary fistulas. ● Appraise the methods of treatment of uterovaginal prolapse. ● Demonstrate clinical evaluation of a patient presenting with urinary symptoms or uterovaginal prolapse. ● Counsel a woman presenting with urinary symptoms or uterovaginal prolapse regarding treatment options. ● Analyze the ethical issues relevant to women presenting with urinary fistulas addressing the social taboos.	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX
31	**Gynecological Procedures**	● The learners shall be able to ○ Discuss preop preparation, intraoperative and postoperative care of common gynecological	● Select a suitable procedure according to patient diagnosis and eligibility. ● Demonstrate the scrubbing, gowning and gloving techniques. ● Take informed consent for the common gynecological procedures. ● Counsel a gynecological patient for post operative care and follow-up.	SGD, case presentation, Bedside teaching, role plays, self-directed learning, flipped classroom	MCQ, SAQ, OSCE, Mini CEX

		procedures and take informed consent from preop cases.			

INTEGRATED INFECTION CONTROL CURRICULUM

S. NO	TOPICS/ THEME	LEARNING OUTCOMES	LEARNING OBJECTIVES	INSTRUCTIONAL STRATEGIES	ASSESSMENT TOOLS
1.	**Introduction to Infection Control**	● The learners shall be able to ○ Understand the principles of infection control and its significance in healthcare settings.	● Define infection control and its significance. ● Understand the historical context and evolution of infection control practices.	LGISx2	MCQ SEQ SAQ MEQ EMQ
2.	**Microbiology of Infectious Diseases**	● The learners shall be able to ○ Identify various types of healthcare-associated infections (HAIs) and their prevention strategies.	● Define HAIs and their impact on patient outcomes. ● Identify common types of HAIs and their causative agents. ● Understand the fundamentals of microbiology relevant to infection prevention and control. ● Identify common pathogens and their characteristics.	SGD x2	MCQ SEQ SAQ MEQ EMQ
3.	**Standard Precautions**	● The learners shall be able to ○ Demonstrate proficiency in implementing standard and	● Understand the concept of standard precautions. ● Demonstrate proper implementation of standard precautions in clinical practice.	SGD x1	MCQ SEQ SAQ MEQ EMQ

		transmission-based precautions.			
4.	**Transmission-Based Precautions**	● The learners shall be able to ○ Apply knowledge of basic microbiology to infection prevention and control practices.	● Differentiate between different types of transmission-based precautions. ● Implement appropriate transmission-based precautions based on patient condition. ● Describe Prevention of surgical site Infections ● .Comment on protocol Preventing catheter associated Infections ● Discuss protocol for Preventing intravascular catheter associated blood borne infections ● Describe the protocol for Preventing Hospital acquired Pneumonia ● Discuss strategies for preventing maternal and new born infections in Healthcare settings ● Describe protocol for preventing healthcare	LGIS×2	MCQ SEQ SAQ MEQ EMQ

			Associated diarrhea		
5.	**Hand Hygiene and PPE**	● The learners shall be able to ○ Develop skills in hand hygiene, proper use of personal protective equipment (PPE), and safe injection practices.	● Recognize the importance of hand hygiene in preventing the spread of infections. ● Demonstrate proper hand hygiene techniques. ● Understand the role of PPE in preventing exposure to infectious agents. ● Demonstrate proper selection and use of PPE.	LGIS×2 Skill Lab x 2 Role play	MCQ SEQ SAQ MEQ EMQ OSCE
6.	**Injection Safety**		● Identify best practices for safe injection practices. ● Understand the risks associated with unsafe injection practices. ● Recognise Sharp injuries & describe management of exposure to blood borne pathogens	LGIS x1 Skill Lab x 1	MCQ SEQ SAQ MEQ EMQ OSCE

7.	**Environmental Control and Disinfection**	● The learners shall be able to ○ Demonstrate understanding of waste management, environmental cleaning, and sterilization techniques for infection control.	● Identify environmental factors contributing to infection transmission. ● Implement measures for environmental control and disinfection. ● Describe methods of sterilization and disinfection. ● Discuss Cleaning, disinfection and sterilization of reusable surgical instruments and medical devices ● Describe the protocol for Waste management in healthcare setting	SGD x 2	MCQ SEQ SAQ MEQ EMQ
8.	**Infection Control in Special Situations**	● The learners shall be able to ○ Recognize the importance of outbreak investigation and participate in outbreak management protocols.	● Apply infection control principles during pandemics and outbreaks. ● Discuss ethical considerations in infection control. ● Understand the specific PPE requirements for managing patients with viral hemorrhagic fever. ● Demonstrate proficiency in using specialized PPE.	LGIS×1 SGD×1 Bed side teaching	MCQ SEQ SAQ MEQ EMQ OSCE

9.	**Antibiotic Stewardship and Resistance**	● The learners shall be able to ○ Understand the concept of Antibiotic Stewardship	● Understand the concept of antibiotic stewardship. ● Recognize the problem of antibiotic resistance and its implications.	LGIS×2	MCQ SEQ SAQ MEQ EMQ


INTEGRATED PATIENT
SAFETY CURRICULUM

S. NO	TOPICS/ THEME	LEARNING OUTCOMES	LEARNING OBJECTIVES	INSTRUCTIONAL STRATEGIES	ASSESSMENT TOOLS
1.	**Introduction to Patient Safety**	● The learners shall be able to ○ Understand the importance of patient safety in healthcare. Recognize common types of medical errors and their impact.	● Define patient safety and its relevance to clinical practice. ● Identify and categorize different types of medical errors. ● Recognise the Role of a doctor in a Culture of Safety and in Building Safer, More Reliable Systems	LGISx1	MCQ SEQ SAQ MEQ EMQ
2.	**From Error to Harm**	● The learners shall be able to ○ Understand the progression from medical error to patient harm. ○ Identify factors contributing to patient harm.	● Explain the mechanisms through which errors lead to harm. ● Discuss preventive strategies to minimize harm. ● Describe the Swiss Cheese Model	SGD x1 Interactive workshops x1	MCQ SEQ SAQ MEQ EMQ
3.	**Human Factors and Safety**	● The learners shall be able to ○ Understand the role of human factors in patient safety. ○ Apply human factors principles	● Explore the Science of Human Factors ● Design Principles to Reduce Human Error ● Recognise the Risks and Rewards of Technology	LGIS x 1 SGD x 1	MCQ SEQ SAQ MEQ EMQ

		to clinical practice.	• Define human factors and their impact on healthcare delivery. • Analyze case studies to identify human factor issues.		
4.	**Teamwork and Communication**	● The learners shall be able to ○ Appreciate the importance of effective teamwork and communication. ○ Develop skills for effective interdisciplinary communication.	• Discuss the fundamentals of Teamwork and Communication • Recognise the Tools and Techniques for Effective Communication • Prioritize Safety During Transitions Across the Continuum of Care • Identify key components of effective teamwork. • Practice communication techniques such as SBAR (Situation, Background, Assessment, Recommendation).	LGIS×1 SGD x 1 Or Role play x1 Communication skills workshop x1	MCQ SEQ SAQ MEQ EMQ

5.	**Responding to Adverse Events**	● The learners shall be able to ○ Learn to respond appropriately to adverse events. ○ Understand the importance of disclosure and apology.	• Explain the steps to take following an adverse event. • Practice delivering a disclosure and apology.	LGIS×2 Skill Lab x 2 Standardized patient encounters. Role play x1	MCQ SEQ SAQ MEQ EMQ OSCE
6.	**Root Cause Analyses and Actions**	● The learners shall be able to ○ Conduct root cause analysis (RCA) for adverse events. ○ Implement actions based on RCA findings.	• Outline the steps involved in conducting an RCA. • Develop action plans to address root causes. • Discuss Actions to Build Safer Systems	LGIS x1 Skill Lab x 1 Problem-based learning session x1	MCQ SEQ SAQ MEQ EMQ OSCE/Action plan presentations

7.	**Achieving Total Systems Safety**	● The learners shall be able to ○ Understand the concept of total systems safety. ○ Develop strategies to promote systems-based safety improvements.	● Explain the principles of systems safety in healthcare. ● Identify systems-based approaches to improving safety. ● Suggest Eight Recommendations for Total Systems Safety ● Support the Health Care Workforce with Patients and Families	SGD x 2	MCQ SEQ SAQ MEQ EMQ
8.	**Pursuing Professional Accountability and a Just Culture**	● The learners shall be able to ○ Appreciate the balance between accountability and a just culture. ○ Foster a culture of safety and learning.	● Define professional accountability and just culture. ● Develop strategies to implement a just culture in clinical settings.	LGIS×1, SGD×1 Bed side teaching x 1	MCQ SEQ SAQ MEQ EMQ OSCE

FAMILY MEDICINE
&
BIOMEDICAL ETHICS CURRICULUM

S. No	TOPIC/THEME	LEARNING OUTCOMES	LEARNING OBJECTIVES	TEACHING STRATEGIES	ASSESSMENT TOOLS
FAMILY MEDICINE					
1	**Concept & Principles of Family Medicine**	● The learners shall be able to ○ Identify principles of family medicine using the bio-psycho-social model.	● Comprehensive, patient-centered care. ● Patient-centered communication psychosocial awareness, patient education) ● Provide holistic, comprehensive, and continuous care for individuals and families.	SGD	MCQS/SEQ
2	**Comprehensive Care and Continuity of Care**	● The learners shall be able to ○ Understand and apply comprehensive care principles ○ Explain how continuity of care improves health outcomes, patient satisfaction, and system efficiencies.	● Explain the principles and importance of comprehensive care in healthcare ● Recognize the significance of continuity of care in patient outcomes.	SGD	MCQS/SEQ
3	**Clinical Consultation Models** **&** **Communication Skills**	● The learners shall be able to ○ Enhance patient communication, diagnostic accuracy.	● Discuss various clinical consultation models and their applications. ● Demonstrate different types of effective communication skills.	SGD	MCQS/SEQ

		○ Effective use and distinguishing between different communication techniques & their impact.			
4	**Doctor-Patient Relationship**	● The learners shall be able to ○ Demonstrate improved communication skills in building a strong doctor-patient relationship.	● Practice effective communication skills to enhance doctor-patient relationships	SGD/Gp clinic visit	OSCEs
5	**Vital Signs Monitoring**	● The learners shall be able to ○ Measure and interpret Blood Pressure , Body Temperature, Respiratory Rate. ○ Identify pulse sites and understand their clinical significance. ○ Use Pulse Oximeter to measure oxygen saturation	● Demonstrate blood pressure & respiratory rate monitoring techniques. ● Explain the practical implications of checking pulse at various sites for accurate patient assessment ● Examine fever using a thermometer and assess its clinical implications for effective patient care. ● Illustrate pulse oximeter use and explain its importance	SGD/Skill Labs	OSCEs/PRACTICAL SKILL EXAM

6	**General physical examination protocols and skills**	● The learners shall be able to ○ Assess and conduct physical examinations for both adults and children. ○ Explain the standard protocols used. ○ Outline and implement the steps to prepare a patient for examination and demonstrate the ability to perform comprehensive physical examination.	● Understand the procedures, standard protocols and steps for conducting general physical examinations in both adults and children. ● Develop practical skills to perform a general physical examination on patients or simulators.	SGDs/Interactive Workshop/GP clinic visit	OSCEs/Practical Skills Test
BIO-MEDICAL ETHICS					
7	**Introduction and Historical Evolution of Bioethics**	● The learners shall be able to ○ Define bioethics and understand its role in healthcare ○ Outline major historical milesones and their impact on modern Bioethics	● Understand the basic principles and importance of bioethics in medical practice. ● Identify and analyze key historical events that shaped bioethics.	SGD/ROLE PLAY	CASE-BASED SCENARIO/OSCEs

8	**Confidentiality and Privacy**	● The learners shall be able to ○ Explain the importance of maintaining confidentiality and privacy in patient care. ○ Identify and evaluate scenarios where breaching confidentiality might be justified.	● Understand the significance of confidentiality and privacy in the patient-physician relationship	SGD/ROLE PLAY	CASE-BASED SCENARIO/OSCEs
9	**Informed Consent**	● The learners shall be able to ○ Identify and describe the key components of informed consent.	● Understand the fundamental elements that constitute informed consent in healthcare.	SGDS	MCQS/SEQ
10	**Procedure of Informed Consent**	● The learners shall be able to ○ Conduct a thorough informed consent discussion	● Develop the skills necessary to effectively perform the informed consent process with patients.	Role-Playing	OSCE
11	**Duty of Confidentiality**	● The learners shall be able to ○ Analyze and discuss ethical arguments for and against the duty of confidentiality.	● Explore the ethical considerations related to the duty of confidentiality in medical practice.	SGDs	MCQs/SEQs

12	**Ethical Perspectives**	● The learners shall be able to ○ Explore and understand the ethical perspectives on patient privacy**.**	● Articulate and debate various ethical viewpoints regarding patient privacy.	SGDs	MCQS/SEQs
13	**Define Abortion, Discuss Pro and Anti Arguments and Religious views on Abortion**	● The learners shall be able to ○ Define abortion in both medical and legal contexts, articulate ana analyze pro and anti abortion arguments and discuss different religious views on abortion.	● Understand the medical and legal definition of abortion. ● Examine and understand the arguments for and against abortion. ● Explore various religious perspectives on abortion.	SGDS/Seminar	MCQS/SEQS
14	**Gathering relevant information from patient family**	● The learners shall be able to ○ Obtain consent and synthesize information for better care.	● Effectively gather and integrate information with patient consent	SGDS	MCQS/SEQS
15	**Think critically about obstacles**	● The learners shall be able to ○ Identify and address obstacles for effective adaptation.	● Recognize and analyze barriers to change	Seminar/interactive session	MCQS/SEQS
16	**Fulfill responsibilities**	● The learners shall be able to ○ Proactively learn and support colleagues.	● Develop accountability and collaboration	Seminar based-teaching	MCQS/SEQS

ENTREPRENEURSHIP CURRICULUM

S. No	TOPIC/THEME	LEARNING OUTCOMES	LEARNING OBJECTIVES	INSTRUCTIONAL STRATEGIES	ASSESSMENT TOOLS
1.	**What Is Entrepreneurship and Why Is It Important?**	● The learners shall be able to ○ Understand the nature, fundamental concepts, and the importance of entrepreneurship	● Introduction to entrepreneurship ● Understand fundamental concepts of entrepreneurship	Mini Cases: Class Discussion ■ a. How a Lack of Passion and Too Few Customers Can Kill a Business ■ b. Angry Birds and Zeo	IA: Presentations, assignments, group projects, case studies,
2.	**Window of opportunity**	● The learners shall be able to ○ Understand concepts of 'idea', and opportunity recognition	● Recognizing Opportunities and Generating Ideas ● Describe the three general approaches entrepreneurs use to identify opportunities ● Identify the major environmental trends that are most instrumental in creating business opportunities application of these concepts to local business scenario		
3.	**Feasibility Analysis**	● The learners shall be able to ○ Describe the purpose of a product/service feasibility analysis	● Be able to analyse feasibility analysis (sample cases) ● Understand the importance of library, Internet, and gumshoe research		

4.	**Business Model Canvas**	● The learners shall be able to ○ Discuss the importance and relevance of a developing a business model	● Understanding of the concept of value proposition, value chain and core competency		
5.	**Preparing the Legal Foundation**	● The learners shall be able to ○ Construct a "skills profile" and explain how it helps a startup identify gaps in its new-venture team	● How to register a business in Pakistan ● Discuss the differences among sole proprietorships, partnerships, corporations, and limited liability companies		
6.	**Marketing**	● The learners shall be able to ○ Analyse marketing, advertising and sales aspects of entrepreneurial venture	● Marketing Aspects ● Building a Brand ● Marketing Mix ● Advertising and PR ● Be able to suggest/devise marketing compaign for a new entrepreneurial venture		