





THE GASTROINTESTINAL TRACT (GIT)

MODULE GUIDE - 2022

FIRST PROFESSIONAL M.B.B.S

BAQAI MEDICAL COLLEGE

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BAQAI MEDICAL UNIVERSITY

51-Deh Tor, Gadap Road, Super Highway. P.O Box: 2407, Karachi-75340, Pakistan. Phone (092-21)34410-293 to 298, 34410-427 to 430. Fax: (092-21)34410-317, 34410-43. Email: info@baqai.edu.pk, Web: www.baqai.edu.pk

BMC Baqai Medical College

BMU Baqai Medical University

CBL Case Based Learning

LGIF Large Group Interactive Format

LOs Learning Objectives

MCQs Multiple Choice Questions

MSK Musculoskeletal

OSCE Objective Structured Clinical Examination

OSPE Objective Structured Practical Examination

PEaRLS Professionalism, Ethics, Research, Leadership, Communication Skills





PW Practical Work

SDL Self Directed Learning

SGD / SGT Small Group Discussion / Small Group Teaching

TS Teaching Strategy



BAQAI MEDICAL UNIVERSITY

VISION STATEMENT

To evolve as a nucleus for higher learning with a resolution to be socially accountable, focused on producing accomplished health care professionals for services in all spheres of life at the national and global level.



BAQAI MEDICAL UNIVERSITY

MISSION STATEMENT

University is dedicated to the growth of competencies in its potential graduates through dissemination of knowledge for patient care, innovation in scholarship, origination of leadership skills, and use of technological advancements and providing





BAQAI MEDICAL COLLEGE

MISSION STATEMENT

To produce medical graduates, who are accomplished and responsible individuals and have skills for problem solving, clinical judgment, research & leadership for medical practice at the international level and are also aware of the health problems of the less privileged rural and urban population of Pakistan.





Write and report focused history, perform physical examination, formulate a diagnosis and management plan for common health problems. Acquire professional behaviours that embodies lifelong learning, Identify problems, critically altruism, empathy and cultural review literature, conduct sensitivity in provision health research and disseminate care service. knowledge. **OUTCOMES OF** THE M.B.B.S **PROGRAM** By the end of five years MBBS program, The Baqai Medical College graduate will be able to: **Apply evidence-based practices** Lead other team members as per for protecting, maintaining and situational needs for quality promoting the health of health service. individuals, families and community. Page **5** of **67** Utilize knowledge of basic and clinical sciences for patient care.





MODULAR PLANNING COMMITTEE

Prof. Dr. Jameel Ahmed (Medicine)	Chairman Curriculum Committee
Prof. Dr. Syed Inayat Ali (Anatomy)	Chairman Modular Committee
Dr. Syed Adnan Ahmed (Physiology)	Co-Chairman Modular Committee
Dr. Benish Zafar (Biochemistry)	Secretary Modular Committee
Prof. Dr. Nazia Jameel (CommunityMedicine)	Member
Dr. Maeesa Sajeel (Pathology)	Member
Dr. Hina Masood (Pharmacology)	Member
Dr. Rafay Ahmed Siddiqui (Forensic Medicine)	Member
Dr. Sidra (Surgery)	Member
Dr. Masooda (Medicine)	Member
Department of Medical Education	All Members





INTRODUCTION TO GASTROINTESTINAL TRACT MODULE GUIDE:

The gastrointestinal tract (GIT) is a part of the digestive system. The organs include mouth, pharynx (throat), esophagus, stomach, small intestine, large intestine, rectum and anus. Other organs include pancreas, liver and gall bladder. The food and liquid travel through when they are swallowed, digested, absorbed and leave the body as feces.

In this module, medical students will learn in detail the normal structure, function and diseases of GIT.

The students go to the hospitals to observe the signs and symptoms of some of very common illnesses related to GIT & Liver including vomiting, chronic diarrhea, constipation, peptic ulcers, enteric fever, malnutrition, jaundice etc.

This module will provide students opportunities to understand the





YEAR TO BE TAUGHT:

First Professional M.B.B.S.

PLACEMENT OF GIT MODULE:

Sixth

DURATION OF GIT MODULE:

9 weeks

DATE:

25.10, 22 - 22.12, 2022

END OF MODULE ASSESSMENT (EOA):

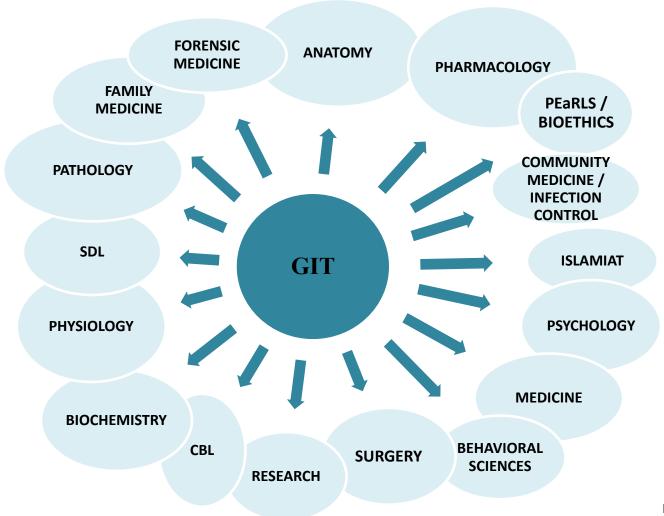
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DEPARTMENT OF PHYSIOLOGY				
By the end of lecture/module, first professional MBBS student will be				
TOPIC AND OBJECTIVES	TEACHING	LOCATION	FACILITATOR	ASSESSMENT
	STRATEGY			
GUT WALL 1	Lecture	Lecture hall 1	Dr. Adnan	SEQs, BCQs
• List the Parts & the Organs that are Associated with G.I Tract.			Ahmed	
 List the Functions of different Parts of G.I Tract. 				
Name the Layers of Gut with their role.				
List & Describe the Electrical Activity / Membrane				
Potentials of G.I Tract.				
GUT WALL 2	Lecture	Lecture hall 1	Dr. M. Ali	SEQs, BCQs
Layers of GI wall				
Basic electrical rhythm, slow wave & spike potential				
Cells responsible for pacemaker activity in GIT & their				
location in small & large intestine				
Difference between action potential of GI smooth muscles &				
other muscles				
• Factors increasing or decreasing frequency of spike potential				
& Phenomenon of tone, a property of GI muscles.				
ENTERIC NERVOUS SYSTEM 1	Lecture	Lecture hall 1	Dr. Adnan	SEQs, BCQs
Define Enteric Nervous System			Ahmed	





GASTROTHESTINAL	110101	11) 111020	EE CCIDE 2	
 List the Divisions of Enteric Nervous System Mention Location of Meissner's & Myenteric Nerve Plexus in the Gut Wall 				
 Describe the Role of Enteric System in Control of G.I Functions. 				
ENTERIC NERVOUS SYSTEM 2	Lecture	Lecture hall 1	Dr. Saba Leeza	SEQs, BCQs
• List the types of plexus with their arrangement.				
Differentiate between Myenteric & Submucosal Plexus				
Name the neurotransmitters released from the enteric				
neurons				
 List & define the GIT Reflexes 				
AUTONOMIC CONTROL OF GIT 1	Lecture	Lecture hall 1	Dr. Adnan	BCQs
 Define "Autonomic Nervous System" with its 			Ahmed	
Characteristic Feature				
 List the Divisions of Autonomic Nervous System 				
 Explain the Role of Autonomic Nervous System in 				
Controlling G.I Functions				
AUTONOMIC CONTROL OF GIT 2	Activity	Lecture hall 1	Dr. Saba Leeza	SEQs, LEQs,
 To make students more focused on the topic which is 				BCQs
covered in lecture. For practice of BCQs and SEQs				
G.I REFLEXES 1	Lecture	Lecture hall 1	Dr. Adnan	SEQs, BCQs
• Define "Reflex" & "Reflex Arc"			Ahmed	
 List the Gastrointestinal Reflexes 				
• Categorize G.I Reflexes according to the Level of their				
Integration.				





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ABDOMINAL EXAMINATION 1	Skill lab	Physiology	Dr. Saba Leeza	OSPE
 Follow the ethical rules to greet the patient. 		laboratory	& Dr. Fizza	
 Inspect the abdomen properly. 				
• Look for shape, symmetry, equal movement of abdomen				
with respiration.				
 Look for any mass, swelling, scar, pigmentation, strias. 				
 Look for position of umbilicus. 				
 Look groins for any abnormality. 				
ABDOMINAL EXAMINATION 2	Skill lab	Physiology	Dr. Fizza & Dr.	OSPE
 Follow the ethical rules to greet the patient. 		laboratory	Sobia Khan	
 Superficially palpate the abdomen for temp and 				
tenderness.				
 Deeply palpatethe abdomen for any painful mass 				
identification				
 Palpate all the viscera's 				
 Palpate liver with liver span measurement and palpate spleen and kidneys. 				





GASIKUMIESIMAL		IIIMODO		1022
 G.I REFLEXES 2 Reflexes that occur entirely via enteric nervous system, Reflexes that are mediated via sympathetic ganglia, Reflexes that occur via spinal cord or brain stem, Effects & causative factors of entero-gastric reflex Role of gastrocolic&duodenocolic reflexes in movements of colon, Colonoileal reflex & Other reflexes i.e. peritoneo-intestinal, reno&vesico-intestinal reflexes. 	Lecture	Lecture hall 1	Dr. M. Ali	OPSE, BCQs
 Define deglutition. List the phases of deglutition. Locate the deglutition center in the brain. 	Lecture	Lecture hall 1	Dr. Ruqaya Nangrejo	OPSE, BCQs
 DEGLUTITION 2 Summarize the process of deglutition & the deglutition reflex BCQ activity on deglutination 	Lecture	Lecture hall 1	Dr. Saba Leeza	OPSE, BCQs, SEQs
 MOTOR FUNCTIONS OF STOMACH 1 List & Define the Physiologic Division of Stomach. Explain the Arrangement of Smooth Muscles in Stomach. List & Explain the Motor Functions of the Stomach. Describe Hunger Contractions & the Vomiting. 	Lecture	Lecture hall 1	Dr. Adnan Ahmed	SEQs, BCQs





GASTROTTESTICAL	(0.	11) 11102	EE GUIDE -	
 MOTOR FUNCTIONS OF STOMACH 2 List the Motor Functions of Stomach Categorize the Factors that Affects Gastric Emptying List & Describe the Factors that Promotes Gastric Emptying List & Describe the Factors that Inhibit Gastric Emptying 	Lecture	Lecture hall 1	Dr. Adnan Ahmed	SEQs, BCQs
 MOVEMENTS OF SMALL INTESTINE 1 Types of movements of small intestine. Their functions. Different patterns of mixing contractions of small intestine. Role of enteric nervous system in small intestinal movements &Peristaltic rush. 	Lecture	Lecture hall 1	Dr. M. Ali	SEQs, BCQs
 MOVEMENTS OF SMALL INTESTINE 2 Role of CGRP (calcitonin gene receptor peptide) in movements & its significance, Hormonal control of propulsive movements of small intestine i.e. hormones that stimulate & that inhibit movements Movements of villi. 	Lecture	Lecture hall 1	Dr. M. Ali	SEQs, BCQs
MOVEMENTS OF COLON 1 • Define Colon (Large Intestine).	Lecture	Lecture hall 1	Dr. Adnan Ahmed	SEQs, BCQs





GASTROINTESTINAL		IJMODO		022
 List the Functions of Large Intestine. Explain Arrangement of Smooth Muscles with Movements in Colon. Categorize & Compare Colonic Movements with Small Intestinal Movements. Mention Abnormalities associated with Colonic 				
Movements				
 MOVEMENTS OF COLON 2 Assessment was taken on the topic in the form of Bcq and SEQ 	Lecture	Lecture hall 1	Dr. Sobia Khan	SEQs, BCQs
 DEFECATION 1 Define "Defecation". List Physiologic Arrangement that Favors Defecation Reflex. List & Explain the Levels of Integration of Defecation Reflex. Explain the Mechanism of Defecation. List Factors that Affects Large Bowel Activity. 	Lecture	Lecture hall 1	Dr. Adnan Ahmed	SEQs, BCQs
 DEFECATION 2 Assessment was taken on the topic in the form of Bcq and SEQ 	Lecture	Lecture hall 1	Dr. Sobia Khan	SEQs, BCQs
 SALIVA AND IT'S FUNCTIONS Locate the G.I Glands & their secretions Summarize the types of salivary gland with their secretions 	Lecture	Lecture hall 1	Dr. Saba Leeza	OPSE, BCQs, SEQs





UASTROINTESTINAL I		II) MODE	LE GUIDE 2	ULL .
 Describe the components & importance of saliva. Explain the mechanism of salivary secretion. Discuss the factor regulating salivary secretions 				
ASSESSMENT BCQ/ SEQ activity is conducted related to all previous topics covered in the module.	Formative assessment	Lecture hall 1	Dr. Saba Leeza	BCQs, SEQs
 GASTRIC ACID SECRETION 1 List the gastric gland, their secretions & functions Describe physiological arrangement of the gastric (oxyntic) gland Discuss the mechanism of HCl secretion Name the factors that affect the gastric acid secretion List & define the phases of gastric secretion 	Lecture	Lecture hall 1	Dr. Sobia Khan	SEQs, BCQs
 PANCREATIC SECRETION Define "Pancreas". List the Types of Pancreatic Secretions. Categorize Pancreatic Exocrine Secretion with their Functions. List Stimuli & Phases of Pancreatic Exocrine Secretions. Explain the Mechanism of Exocrine Secretions of Pancreas. 	Lecture	Lecture hall 1	Dr. Adnan Ahmed	SEQs, BCQs
 SECRETION OF BILE Define bile List the components of biliary secretion. 	Lecture	Lecture hall 1	Dr. Saba Leeza	BCQs, SEQs





Skill lab	Physiology	Dr. Saba Leeza	OSPE
	laboratory	& Dr. Fatima	
Lecture	Lecture hall 1	Dr. Saba Leeza	BCQs, SEQs
Lecture	Lecture hall 1	Dr. Adnan	SEQs, BCQs
		Ahmed	
	Skill lab Lecture	Skill lab Physiology laboratory Lecture Lecture hall 1	Lecture Lecture hall 1 Dr. Saba Leeza Lecture Lecture hall 1 Dr. Adnan





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 Explain Formation & Functions of Bile Salts. Describe Enterohepatic Circulation of Bile Salts with its 				
Importance.				
FUNCTIONS OF COLON	Activity	Lecture hall 1	Dr. Saba Abrar	SEQs
 To conduct SEQs on the topic of functions of colon 				
JOURNAL CHECKING	Laboratory	Physiology	Dr. Fatima	OSPE
To check the entire practicals' performed and checked if the results are written in physiology and haematology journal.		lab	Dr. Asma Dr. Fizza	
 MCQs BASED ACTIVITY To know Chewing, Functions & components of saliva, Motor functions of stomach & Gastric secretion To understand Pancreatic secretions (exocrine), Bile, Movements of colon & Defecation reflex 	Activity	Lecture hall 1	Dr. M. Ali Dr. Saba Leeza	BCQs
 OSPE BASED ACTIVITY To recall the Knowledge Regarding GIT Functions. To have clear concept about movements & functions of colon. To integrate the Knowledge with Reference to Figures Shown. To deal the OSPEs during Final Examination. 	Activity	Lecture hall 1	Dr. Saleem & Dr. M.Ali	OSPE
 SEQs BASED ACTIVITY To conduct the SEQs of all previous topics covered in the module 	Activity	Lecture hall 1	Dr. Saba Leeza	SEQs





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FUNCTIONS OF LIVER 1	Lecture	Lecture hall 1	Dr. Saba Leeza	SEQs, BCQs
 List the metabolic functions of liver. 				
 Identify the role of liver in storage of blood. 				
 Discuss the role of liver in plasma protein synthesis. 				
 Summarize the storage functions of liver 				
FUNCTIONS OF LIVER 2	Lecture	Lecture hall 1	Dr. Adnan	SEQs, BCQs
• List the function of "Liver".				
• Describe the Role of Liver in; Metabolism, Storage,				
Synthesis & Degradation of Substances.				
ACHALASIA AND MEGA COLON	Lecture	Lecture hall 1	Dr. Saleem	SEQs, BCQs
 Enlist the esophageal motility disorders 				
• Define the achalasia.				
 Describe the esophago-gastric junction. 				
 Describe the pathology, clinical presentation & 				
diagnosis of achalasia.				
 Describe the Megacolon (Hirschsprung's Disease) 				
GROUP DISCUSSION	Activity	Physiology	Dr. Saba Leeza	OSPE
 Know how all the lab practicals are performed 		lab	Dr. Sobia Khan	
 How questions can be attempted 				
 How OSPE can be attempted 				
PEPTIC ULCER	Lecture	Lecture hall 1	Dr. Adnan	SEQs, BCQs
• Define "Peptic Ulcer".				
 Describe Mucosal Barrier Preventing the Digestive 				
Action of Acids & Pepsin.				





GASTROINTESTINAL TRACT (GIT) MODULE GUIDE 2022

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List the Factor that Result in Development of Peptic				
Ulcer.				
Mention Treatment to Cure a Person from Peptic Ulcer				
VOMITING AND DIARRHEA	Lecture	Lecture hall 1	Dr. Saleem	SEQs, BCQs
 Define the nausea, retching and vomiting 				
 Enlist the causes of vomiting. 				
 Describe the vomiting center. 				
 Describe the vomiting reflex. 				
 Describe the antiperistalsis. 				
 Describe the vomiting act 				
Define diarrhea				
 Describe the classification of diarrhea 				
• Describe the enteritis, ulcerative colitis & psychogenic				
diarrhea				

DEPARTMENT OF BIOCHEMISTRY





By the end of lecture/module, first professional MBBS student will be a	able to:	·		
TOPIC AND OBJECTIVES	TEACHING STRATEGY	LOCATION	FACILITATOR	ASSESSMENT
 DIGESTION AND ABSORPTION OF CARBOHYDRATES List the principal carbohydrates present in the foodstuffs which we take. Describe the biochemical composition of saliva, with special stress to pH range, activating factors and action of carbohydrate splitting enzymes which is α- amylase. Outline the characteristics of α- amylase and its mode of action on starch and glycogen. Describe the biochemical composition of gastric juice, with special stress to pH ranges and enzymes present. 	Lecture	Lecture hall 1	Dr. Farhan	MCQs SEQs
 DIGESTION AND ABSORPTION OF CARBOHYDRATES IN SMALL INTESTINE Recognize the role of carbohydrate splitting enzyme-pancreatic amylase. List the carbohydrate splitting enzymes present in intestinal epithelial cells. Recognize the site and rate of absorption of monosaccharides from GIT. List the sugars which are actively transported in GIT. Describe the characteristics of the receptor molecule which actively transports the sugars. Discuss about glucose transporters (GluT). Name the sugars absorbed by facilitated diffusion. 	Lecture	Lecture hall 1	Dr. Farhan	MCQs SEQs
DIGESTION OF LIPIDS IN STOMACH	Lecture	Lecture hall 1	Dr. Farhan	MCQs SEQs





GIBTROTTESTITIE I	111101 (0.	11,11000		
 List the principal lipids present in the foodstuff which we take in normal diet. Outline the problems faced in digestion of lipids in GIT and how it differs from carbohydrates. Identify the role of lingual and gastric lipase in stomach. Recognize that fat in stomach delays gastric emptying. Describe the role of GI hormone "enterogastroen". Defend that fats have high satiety value. DIGESTION AND ABSORPTION OF LIPIDS IN SMALL	Lecture	Lecture hall 1	Dr. Farhan	MCQs
 INTESTINE Recognize the factors that make small intestine the major site for fat digestion. Describe the role of the hormones:secretin and cholecystokinin. Describe the composition of bile. List the lipolytic enzymes present in pancreatic juice along with their pH range, mode of action and activators. List the products formed from hydrolysis of triglycerides. Point the percentage of lipids which is absorbed. Describe the mechanism of absorption of TG products. Identify that triglycerides are packaged in chylomicrons and transported to liver. 				SEQs
 DIGESTION AND ABSORPTION OF PROTEINS List the principal proteins present in the foodstuffs which we take in our diet. List the proteolytic enzymes present in gastric juice. 	Lecture	Lecture hall 1	Dr. Farhan	MCQs SEQs





 Discuss in detail the pH range, activators of the enzymes, substrates on which they act and the products formed. List the proteolytic enzymes present in the pancreatic juice. Discuss in detail the pH range, activators of the enzymes, substrates on which they act and the products formed. List the proteolytic enzymes present in the intestinal juice. Discuss in detail the pH range, activators of the enzymes, substrates on which they act and the products formed. Point the site of absorption of amino acids. Explain how absorbed products are carried to liver. GASTRIC FUNCTION TESTS-1 Recall the constituents of gastric juice. 	Lecture	Lecture hall 1	Dr. Farhan	MCQs
 Identify the clinical indications for performing. Gastric function tests. Describe the procedure of obtaining a sample of gastric juice from the patients. Classify gastric function tests. Outline the normal response of fractional test meal analysis seen commonly in patients with no gastric pathologies. (FTM). Outline the abnormal response of FTM seen commonly in patients. 				
 GASTRIC FUNCTION TESTS-2 Define Hypercholrhydria, Hypochlorhydria and achylia gastric. Discuss about hyperchlorhydria, hypochlorhydria and achylia Gastric. 	Lecture	Lecture hall 1	Dr. Farhan	MCQs





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List the stimulation tests performed to induce gastric acid				
production.				
• Outline the interpretations of the results of stimulation tests.				
 Discuss about tubeless gastric analysis and its importance. 				
GLYCOLYSIS (CARBOHYDRATE METABOLISM)	Lecture	Lecture hall 1	Ms. Nazish	MCQs
 Define glycolysis. 				SEQs
 Differentiate between aerobic and anaerobic glycolysis. 				
 Identify the biomedical importance of glycolytic pathway. 				
 Describe the sequence of reactions involved in glycolytic 				
pathway.				
 Define substrate level phosphorylation. 				
 Name the end product formed in aerobic and anerobic 				
glycolysis.				
 Describe the regulation of glycolysis via substrates, end- 				
products and hormones.				
 Calculate the total and net number of ATPs produced of in 				
aerobic and anaerobic glycolysis.				
• List the fates of pyruvate.				
KREB CYCLE (CARBOHYDRATE METABOLISM)	Lecture	Lecture hall 1	Dr. Farhan	MCQs
 Describe the conversion of pyruvate into acetyl CoA in 				SEQs
mitochondria.				
 Identify that TCA cycle is a common and final pathway for 				
breakdown of acetyl CoA obtained from carbohydrates,				
proteins and lipids to CO ₂ and H ₂ O.				
 Describe the reactions of TCA cycle. 				
Define "anaplerotic reactions"				
• Identify the reaction of TCA cycle involved in substrate level				
			•	





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phosphorylation.				
 Identify that TCA cycle is "amphibolic" in nature. 				
 Describe the regulation of krebs cycle. 				
GLUCONEOGENESIS (CARBOHYDRATE METABOLISM)	Lecture	Lecture hall 1	Dr. Iffat	MCQs
Define gluconeogenesis.				SEQs
 List the non-carbohydrate sources of 				
• glucose.				
 Identify the importance of gluconeogenesis to occur in the body. 				
 Describe the reactions of gluconeogenesis. 				
Describe Cori cycle.				
 List the fates of lactic acid. 				
 Describe the regulation of gluconeogenesis 				
GLYCOGENESIS (GLYCOGEN METABOLISM) 1	Lecture	Lecture hall 1	Dr. Iffat	MCQs
 Identify that glycogen is the major storage form of glucose in human beings 				SEQs
 Describe the reactions of glycogenesis. 				
 Describe the regulation of glycogen synthesis. 				
GLYCOGENESIS (GLYCOGEN METABOLISM) 2	Lecture	Lecture hall 1	Dr. Iffat	MCQs
Identify that glycogen breakdown is not the reversal of glycogenesis.			211 111 W	SEQs
 Describe the reactions of glycogenolysis. 				
 Describe the regulation of glycogenolysis. 				
INTRODUCTION TO NUTRITION	Lecture	Lecture hall 1	Ms. Nazish	MCQs
 Define caloric value of food. 				
 Define unit of energy-kilocalorie 				
• Define BMR				





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Define balanced diet				
 Describe the role of proteins in the nutrition 				
 List the factors influencing biological value of proteins 				
 Identify the quantity of proteins required in the diet. 				
PROTEIN CALORIE MALNUTRITION	Lecture	Lecture hall 1	Ms. Nazish	MCQs
 Outline the role of carbohydrates in diet. 				
 Identify the requirement of carbohydrates in diet. 				
 Outline the role of lipids in diet. 				
 Define protein calorie malnutrition. 				
 Differentiate in a tabular form marasmus and kwashiorkor. 				
LIVER FUNCTION TEST 1	Lecture	Lecture hall 1	Dr. Farhan	MCQs
 Discuss functions of liver such as metabolic functions, 				
secretory functions, excretory functions, hematologic				
functions, protective functions and storage functions				
 Outline the interpretation of results of protein, albumin 				
estimation and fibrinogen.				
• Relate the interpretation of the results of serum cholesterol				
with the degree of function of liver.				
 Describe the test prothrombin time and outline the 				
interpretation of the results.				
 Identify the importance of estimation of ammonia to assess 				
the degree of liver damage				
LIVER FUNCTION TEST 2	Lecture	Lecture hall 1	Dr. Farhan	MCQs
• Explain the procedure of oral and IV hippuric acid test.				
Identify the importance for assessing detoxification function				
of liver with hippuric acid test.				
Indicate the use of MEGX test for evaluating the capacity of				





GASTROINTESTINAL		II) MIODO	LL GUIDL 2	
metabolising drugs by the liver.				
Recognize BSP retention test for estimating the excretory Constitute of Clients Constitute of Constitute				
function of liver.				
Explain the procedure of galactose tolerance test.				
Identify the importance of this test in assessing liver				
dysfunction.				0.000
ESTIMATION OF TOTAL PROTEINS	Practical	Biochemistry	Dr. Farhan	OSPE
State the normal range of Total plasma proteins.		Laboratory	Ms. Nazish	
Identify that Serum Total Proteins is made up of Serum				
Albumin and Serum Globulin.				
 Name the reagents to be used in the experiment. 				
 Read the instructions to prepare the stock standard solutions 				
and the sample.				
 Describe the principle of the reaction taking place in the experiment. 				
 Record the readings of transmittance and optical density of 				
stock standard solutions and sample with the use of spectrophotometer.				
• Calculate the concentration of stock standard solutions of 'S'				
test tubes.				
 Draw the graph to obtain the concentration of total proteins 				
for the sample.				
 Define the terms hypoproteinemia and hyperproteinemia. 				
 Interpret the result of whether the working sample is 				
hypoproteinemia/hyperproteinemia or within the normal				
range.				
Discuss a few clinical causes of hypoproteinemia and				





GASTROINTESTINAL	THE CT (311) 11102 0	EE GUIDE	
hyperproteinemia.				
ESTIMATION OF ALDUMIN . CLODIN IN DATIO	Donation 1	Die de mietre	D. Fadan	OCDE
ESTIMATION OF ALBUMIN: GLOBULIN RATIO	Practical	Biochemistry	Dr. Farhan	OSPE
• State the normal range of Albumin: globulin ratio.		Laboratory	Ms. Nazish	
 Name the reagents to be used in the experiment. 				
• Read the instructions to prepare the stock standard solutions				
of Albumin and the sample.				
• Describe the principle of the reaction taking place in the				
experiment.				
 Record the readings of transmittance and optical density of 				
stock standard solutions and sample with the use of				
spectrophotometer.				
• Calculate the concentration of stock standard solutions of 'S	,			
test tubes.				
 Draw the graph to obtain the concentration of Serum 				
Albumin for the sample.				
Apply the formula of (Serum Total Proteins – Serum				
Albumin) to obtain the value of Serum Globulin.				
• Quote the value of Serum Total Proteins obtained from the				
previous practical.				
• Calculate the Albumin: Globuli				
 Interpret the result of whether the ratio of the working sample 	e			
is above the range, below the range or within the normal				
range.				
 Discuss a few clinical causes of increased and decreased 				
Albumin:Globulin ratio.				





DEPARTMENT OF ANATOMY				
By the end of lecture/module, first professional MBBS student will be	able to:			
TOPIC AND OBJECTIVES	TEACHING	LOCATION	FACILITATOR	ASSESSMENT
	STRATEGY			
ANTEROLATERAL ABDOMINAL WALL	Lecture	Lecture hall 1	Dr. Shahid	BCQs, SEQs
• What is the extent of anterolateral abdominal wall?				
 Describe the components of anterolateral abdominal wall? 				
 Name the muscles, their attachments, actions and innervation 			_	
of anterolateral abdominal wall?	Practical	Anatomy	Dr. Fatima	OSPE
 Describe the blood supply and innervation of anterolateral 		LRC		
abdominal wall?				
RECTUS SHEET, INGUINAL CANAL AND HERNIAS I	Lecture	Lecture hall 1	Dr. Hina	BCQs, SEQs
• Define the rectus sheet?				
 Describe the composition and contents of rectus sheet? 				
• What is inguinal canal?				
	Practical	Anatomy	Dr. Fatima	OSPE
		LRC		
RECTUS SHEET, INGUINAL CANAL AND HERNIAS II	Lecture	Lecture hall 1	Dr. Aneela	BCQs, SEQs
• Describe the boundaries and contents of inguinal canal?				
• Define inguinal hernia?				
What is the classification of inguinal hernias?				





GASTROINTESTINAL		JII) MODU		
Differentiate the direct and indirect inguinal hernias in detail?	Practical	Anatomy LRC	Dr. Fatima	OSPE
ORAL CAVITY AND ESOPHAGUS	Lecture	Lecture hall 1	Dr. Farhan	BCQs, SEQs
 What are the boundaries of oral cavity? 				
Describe the oral mucosa and tongue?				
 Describe the extent of esophagus? 				
 What are the constrictions of esophagus? 	Practical	Anatomy	Dr. Fatima	OSPE
		LRC		
Describe the lower esophageal sphincter?				
Describe the blood supply, innervation and lymphatic desired a few places 2.				
drainage of esophagus?				
What is gastro esophageal reflux disease (GERD)?	_		- a	7.00 07.0
STOMACH	Lecture	Lecture hall 1	Dr. Shahid	BCQs, SEQs
What are the parts of stomach?				
 Describe the attachments of stomach? 				
 Describe the blood supply, innervation and lymphatic 				
drainage of stomach?	Practical	Anatomy	Dr. Fatima	OSPE
What is pyloric stenosis?		LRC		
PERITONEUM I	Lecture	Lecture hall 1	Dr. Hina	BCQs, SEQs
• Define peritoneum?				
• What is parietal and visceral peritoneum?				
Describe the terms intraperitoneal, extraperitoneal,				
retroperitoneal and subperitoneal visceras with examples?	Practical	Anatomy	Dr. Fatima	OSPE
• Describe the modifications of peritoneum?		LRC		
 What is greater and lesser sac? 				
 Define the lesser sac and describe its boundaries? 				
What is epiploic foramen and describe its boundaries?				





GASTROTULESTINAL				
PERITONEUM II	Lecture	Lecture hall 1	Dr. Farhan	BCQs, SEQs
 Describe the mesentry in detail? 				
 Describe the ligaments of stomach? 				
 Describe the ligaments of liver? 			_	
 Describe the ligaments of spleen? 	Practical	Anatomy	Dr. Fatima	OSPE
What is peritoneal adhesions?		LRC		
Define ascites?				
DIAPHRAGM	Lecture	Lecture hall 1	Dr. Aneela	BCQs, SEQs
Define diaphragm?				
What are the attachments of diaphragm?				
• Describe the openings of diaphragm with their contents?				
 Describe the blood supply, innervation and lymphatic 	Practical	Anatomy	Dr. Fatima	OSPE
drainage of diaphragm?		LRC		
What are diaphragmatic hernias?				
POSTERIOR ABDOMINAL WALL	Lecture	Lecture hall 1	Dr. Shahid	BCQs, SEQs
 What are the muscles involves in posterior abdominal wall? 				
 Describe the attachments, nerve supply and actions of 				
muscles of posterior abdominal wall?				
 Describe other structures present in the posterior abdominal 	Practical	Anatomy	Dr. Fatima	OSPE
wall?		LRC		
 Describe formation, termination and tributaries of IVC? 				
LARGE BLOOD VESSELS OF GIT	Lecture	Lecture hall 1	Dr. Hina	BCQs, SEQs
 Describe abdominal aorta in detail? 				
What are branches of abdominal aorta?				
• What is the level of entrance and its termination in abdomen?				
 Describe celiac trunk its branches and area of supply? 	D (: 1		D. E. C	OGDE
 Describe SMA its branches and area of supply? 	Practical		Dr. Fatima	OSPE





GASTROINTESTINAL		II) MODU	LL GUIDL 2	
Describe IMA its branches and area of supply?Describe portal vein its formation, course and termination?		Anatomy LRC		
What is a ortic dissection and a ortic aneurysm?				
SMALL INTESTINE I	Lecture	Lecture hall 1	Dr. Shahid	BCQs, SEQs
Describe the parts of small intestine?What is duodenum?				
 Describe the parts of duodenum and their important relations? Describe blood supply, innervation and lymphatic drainage of duodenum? 	Practical	Anatomy LRC	Dr. Fatima	OSPE
What is duodenal atresia?What is duodenal ulcer?				
SMALL INTESTINE II	Lecture	Lecture hall 1	Dr. Farhan	BCQs, SEQs
 Describe the anatomy jejunum? Describe the anatomy of ileum? What are the differences between jejunum and ileum? 	n di l		D. F. C	OCDE
 Describe the blood supply, innervation and lymphatic drainage of jejunum and ileum? Describe the mesentery of small intestine, its root its relations? 	Practical	Anatomy LRC	Dr. Fatima	OSPE
LIVER	Lecture	Lecture hall 1	Dr. Aneela	BCQs, SEQs
 What are the lobes of liver? Describe the ligamentous attachments of liver? Describe the peritoneal relations of liver? Describe the structures present within the hilum of liver? What is the accessory lobe of liver? What are hepatic segments? Define hepatic cirrhosis? 	Practical	Anatomy LRC	Dr. Fatima	OSPE





UASTRUMTESTINAL		dii) Mobe	LL GOIDI	1 2022
• What is CLD?				
EXTRA BILIARY APPARATUS	Lecture	Lecture hall 1	Dr. Hina	BCQs, SEQs
• What is gall bladder?				
 Define the relations of gall bladder? 				
 Describe the parts of gall bladder? 			Dr. Fatima	OSPE
 Describe the blood supply, innervation and lymphatic drainage of gall bladder? 	Practical	Anatomy LRC		
What is portal triad?				
 Describe bile duct, its relations and opening? 				
APPENDIX AND CECUM	Lecture	Lecture hall 1	Dr. Shahid	BCQs, SEQs
• What are the parts of large intestine?				
 Describe cecum and appendix? 				
 Describe the cecal recess? 		Anatomy	Dr. Fatima	OSPE
 Describe mesoappandix and blood supply of appendix? 	Practical			
 What is appendicitis and appendectomy? 		LRC		
LARGE INTESTINE I	Lecture	Lecture hall 1	Dr. Farhan	BCQs, SEQs
• Describe the parts of large intestine and its peritoneal relations?			Dr. Fatima	OSPE
• What is appendices epiploici, tenia coli?				
 Describe ascending colon relations? 	Practical	Anatomy		
• What are the relations of transverse colon?		LRC		
• What is transverse mesocolon and greater omentum?				
LARGE INTESTINE II	Lecture	Lecture hall 1	Dr. Aneela	BCQs, SEQs
 Describe the relations of descending colon? 				
 Describe the relations of sigmoid colon? 				
 What are the recesses of sigmoid colon? 				





GASTROTTESTINAL	111101 (JII) WODE		
What is sigmoid mesocolon?	Practical	Anatomy LRC	Dr. Fatima	OSPE
LARGE INTESTINE III	Lecture	Lecture hall 1	Dr. Hina	BCQs, SEQs
 What is the blood supply, innervation and lymphatic drainage of large intestine? 				
 What is intussusception and volvulus? 				
Describe diverticulitis?	Practical	Anatomy LRC	Dr. Fatima	OSPE
SPLEEN AND PANCREAS	Lecture	Lecture hall 1	Dr. Shahid	BCQs, SEQs
• What are the relations of spleen?				
• Describe the attachments of spleen?				
Describe the blood supply, innervation and lymphatic				
drainage of spleen?	Practical	Anatomy	Dr. Fatima	OSPE
• What are the relations of pancreas and its parts?		LRC		
• Describe the borders of pancreas with their relations?				
Describe the main pancreatic and accessory pancreatic ducts				
with their openings in duodenum?				
• What is pancreatitis?				
RECTUM	Lecture	Lecture hall 1	Dr. Farhan	BCQs, SEQs
• What are the peritoneal relations of rectum?				
• What is the location of sigmoid rectal junction?				
• Describe the internal structure of rectum?				
 Describe the blood supply, innervation and lymphatic 	Practical	Anatomy	Dr. Fatima	OSPE
drainage of rectum?		LRC		
• What is rectal proplapse?				
ANAL CANAL	Lecture	Lecture hall 1	Dr. Aneela	BCQs, SEQs
What are the peritoneal relations of anal canal?				





GASTROINTESTINAL		II) MODU					
 Describe the dentate/ pectinate line? Describe the differences in the anal canal above and anal canal below the dentate line? Describe the blood supply, innervation and lymphatic drainage of anal canal? What are hemorrhoids? What is anal fissure and abscess? 	Practical	Anatomy LRC	Dr. Fatima	OSPE			
EMBRYOLOGY							
DIVISION OF GUT TUBE Describe the formation of gut tube? What are the divisions of the cut tube?	Lecture	Lecture hall 1	Dr. Tayyaba	BCQs, SEQs			
 What are the divisions of the gut tube? Describe the derivatives of endoderm and visceral mesoderm? Describe the molecular regulation of gut tube formation? 	Practical	Dissection Hall	Dr. Fatima	OSPE			
 DERIVATIVES OF FOREGUT; ESOPHAGUS Describe the derivatives of foregut? Describe the formation of esophagus in detail? What is esophageal atresia? Describe tracheoesphageal fistula (TEF)? What is congenital hiatal hernia? 	Lecture Practical	Lecture hall 1 Dissection Hall	Dr. Tayyaba Dr. Fatima	BCQs, SEQs OSPE			
 DERIVATIVES OF FOREGUT; STOMACH Describe the formation of stomach? Describe the rotation of the stomach in embryo? What is pyloric stenosis? 	Lecture Practical	Lecture hall 1 Dissection Hall	Dr. Tayyaba Dr. Fatima	BCQs, SEQs OSPE			





GASIKUMIESIMAL	U) LOANI	II) MIODO	LE GUIDE	2022
DERIVATIVES OF FOREGUT; DUODENUM	Lecture	Lecture hall 1	Dr. Tayyaba	BCQs, SEQs
 Describe the formation of duodenum? 				
 Describe the rotation of duodenum? 				
What is duodenal atresia?	Practical	Dissection Hall	Dr. Fatima	OSPE
DERIVATIVES OF FOREGUT; LIVER AND GALL	Lecture	Lecture hall 1	Dr. Tayyaba	BCQs, SEQs
BLADDER				
 Describe the formation of liver? 				
 Describe the formation of gall bladder? 	Practical	Dissection	Dr. Fatima	OSPE
 Explain the molecular regulation of liver induction? 		Hall		
 Describe the accessory hepatic duct? 				
 Explain duplication of gall bladder? 				
What is intra and extra hepatic billiary duct atresia?				
DERIVATIVES OF FOREGUT; PANCREAS	Lecture	Lecture hall 1	Dr. Tayyaba	BCQs, SEQs
 Explain the formation of pancreas? 				
• Describe the molecular regulation of pancreas development?			_	
• What is annular pancreas?	Practical	Dissection	Dr. Fatima	OSPE
Describe accessory pancreatic tissue?		Hall		
DERIVATIVES OF MDGUT I	Lecture	Lecture hall 1	Dr. Tayyaba	BCQs, SEQs
 Describe the derivatives of mid gut? 				
 Describe the physiological herniation? 				
• Explain the rotation of mid gut?	Practical	Dissection	Dr. Fatima	OSPE
 Describe the retraction of mid gut herniation and when it 		Hall		
occurs?				
DERIVATIVES OF MIDGUT II	Lecture	Lecture hall 1	Dr. Tayyaba	BCQs, SEQs
What is omphalocele?				
Describe gastroschisis?				





Practical Lecture Practical	Dissection Hall Lecture hall 1 Dissection Hall	Dr. Fatima Dr. Tayyaba Dr. Fatima	OSPE BCQs, SEQs OSPE
Practical	Lecture hall 1 Dissection		
Practical	Dissection		
Practical	Dissection		
		Dr. Fatima	OSPE
		Dr. Fatima	OSPE
		Dr. Fatima	OSPE
TOLOGY	Hall		
FOLOGY			
TOLOGY			
Lecture	Lecture hall 1	Dr. Inavat	BCQs, SEQs
			(2, 2 - (2
Practical	Histology	Dr. Fatima	OSPE
	Lab		
Lecture	Lecture hall 1	Dr. Inayat	BCQs, SEQs
Practical	Histology	Dr. Fatima	OSPE
	Lab		
		Practical Histology Lab Lecture Lecture hall 1 Practical Histology	Practical Histology Dr. Fatima Lecture Lecture hall 1 Dr. Inayat Practical Histology Dr. Fatima





STOMACHDescribe the general histology of stomach?	Lecture	Lecture hall 1	Dr. Inayat	BCQs, SEQs
 Explain mucosa, submucosa, muscularis and serosa of stomach? 	Practical	Histology Lab	Dr. Fatima	OSPE
• Describe the cells of stomach in detail?				
SMALL INTESTINEDescribe the general histology of small intestine?	Lecture	Lecture hall 1	Dr. Inayat	BCQs, SEQs
 Explain mucosa, submucosa, muscularis and serosa of small intestine? 	Practical	Histology Lab	Dr. Fatima	OSPE
• Describe the cells of small intestine?				
• What are plicacirculares?				
 Describe villi and microvilli? 				
• Describe the payer's patches?				
LARGE INTESTINE • Describe the general histology of large intestine?	Lecture	Lecture hall 1	Dr. Inayat	BCQs, SEQs
 Explain mucosa, submucosa, muscularis and serosa of large intestine? 	Practical	Histology Lab	Dr. Fatima	OSPE
• Describe the cells of large intestine?				





LIVER • Describe the general histology of liver? • What is hepatic lobule, hepatic acinus and portal lobule? • Describe the contents of portal triad? • Describe the contents of portal triad?

• What is space of Disse and its con	tents?					
• Describe the general histology of	gall bladder?	Lecture	Lecture hall 1	Dr. Inayat	BCQs, SEQs	
Explain mucosa, muscularis and se	erosa of gall bladder?	Practical	Histology Lab	Dr. Fatima	OSPE	

DEPARTMENT OF PHARMACOLOGY By the end of lecture/module, first professional MBBS student will be able to:						
TOPIC AND OBJECTIVES	TEACHING STRATEGY	LOCATION	FACILITATOR	ASSESSMENT		
 OVERVIEW OF PHARMACOLOGY OF EMESIS Describe the physiology of emesis. Explain the pathophysiology of emesis. Discuss and understand the mechanistic pharmacology of emesis. 	Lecture	Lecture hall 1	Dr. Hina	BCQs, SEQs		
 OVERVIEW OF PHARMACOLOGY OF DIARRHEA Describe the physiology of diarrhea. 	Lecture	Lecture hall 1	Dr. Hina	BCQs, SEQs		





	 		_
 Explain the pathophysiology of diarrhea. 			l
 Discuss and understand the mechanistic pharmacology of 			l
diarrhea.			l

DEPARTMENT OF FORENSIC MEDICINE By the end of lecture/module, first professional MBBS student will be able to:					
TOPIC AND OBJECTIVES	TEACHING STRATEGY	LOCATION	FACILITATOR	ASSESSMENT	
 GASTRIC LAVAGE Apply General Principles of Treatment of Poisoning. Describe the Procedure of Gastric Lavage / Stomach Wash. 	Lecture	Lecture hall 1	Dr. Rafay. A. Siddiqui	BCQs, SEQs	
 POISONS ACTING ON THE GIT List the Uses of Heavy Metals (Arsenic, Copper, Zinc, Lead & Discribe the Mechanism of Action of all these. Diagnose the Acute & Diagnose the Acute & Diagnose the Acute & Diagnose Symptoms of Poisoning by all above. List the Treatment options for Acute & Discribe Poisoning by all above Identify Fatal Doses & Discribe Poisoning by them. Describe Postmortem Appearances of Poisoning by them. Give ML importance. 	Lecture	Lecture hall 1	Dr. Rafay. A. Siddiqui	BCQs, SEQs	





DEPARTMENT OF FAMILY MEDICINE						
By the end of lecture/module, first professional MBBS student will be a	able to:					
TOPIC AND OBJECTIVES TEACHING LOCATION FACILITATOR ASSESSMENT						
	STRATEGY					
GIT MODULE	Lecture	Lecture hall 1	Dr. Faisal Ahmed	MCQs		
 Discuss common symptoms associated with GI related problems 						
Role of family physician in the management of GI related problems.						

DEPARTMENT OF COMMUNITY MEDICINE						
By the end of lecture/module, first professional MBBS student will be able to:						
TOPIC AND OBJECTIVES	TEACHING	LOCATION	FACILITATOR	ASSESSMENT		
	STRATEGY					
FOOD POISONING	Lecture	Lecture hall 1	Prof. Dr Nazia	MCQs, SEQs,		
 Define food poisoning. 			Jameel	OSPE, Viva		
 Discuss types of food 						
 poisoning. 						
 Difference between cholera & food poisoning. 						
INSTESTINAL INFECTIONS:	Lecture	Lecture hall 1	Prof. Dr Nazia	MCQs, SEQs,		
 Define & amp; enlist some common intestinal infections. 			Jameel	OSPE, Viva		
 Discuss common intestinal infection. 						





Describe the prevention & control of intestinal infection.				
 NUTRITION Define Nutrition, nutrient, food and diet. Discuss the classification of Nutrients. Discuss Macro-Nutrients. Describe the important functions of macronutrients 	Lecture	Lecture hall 1	Prof. Dr Nazia Jameel	MCQs, SEQs, OSPE, Viva

DEPARTMENT OF PATHOLOGY					
By the end of lecture/module, first professional MBBS student will be able to:					
TOPIC AND OBJECTIVES	TEACHING	LOCATION	FACILITATOR	ASSESSMENT	
	STRATEGY				
HEPATITIS	Lecture	Lecture hall 1	Dr. Sidra Izhar	SEQs, MCQs	
Briefly explain the followings;					
- definition, etiology, pathogenesis, types, clinical features, lab tests					
and treatment					

DEPARTMENT OF SURGERY						
By the end of lecture/module, first professional MBBS student will be able to:						
TOPIC AND OBJECTIVES	TEACHING	LOCATION	FACILITATOR	ASSESSMENT		
	STRATEGY					
ABDOMINAL WALL HERNIA:	Lecture	Lecture hall 1	Dr. Sidra	MCQs, SEQs		
 Summarize the basic anatomy of abdominal wall and its 						
natural or acquired						





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Lecture	Lecture hall 1	Dr. Sidra	MCQs, SEQs
Lecture	Lecture hall 1	Dr. Sidra	MCQs, SEQs
Lecture	Lecture hall 1	Dr. Sidra	MCQs, SEQs
	Lecture	Lecture Lecture hall 1 Lecture Lecture hall 1	Lecture Lecture hall 1 Dr. Sidra





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Lecture	Lecture hall 1	Dr. Sidra	MCQs, SEQs
Lecture	Lecture hall 1	Dr. Sidra	MCQs, SEQs
Lecture	Lecture hall 1	Dr. Sidra	MCQs, SEQs
	Lecture	Lecture Lecture hall 1 Lecture Lecture hall 1	Lecture Lecture hall 1 Dr. Sidra





GASTROINTESTINAL TRACT (GIT) MODULE GUIDE 2022					
ANORECTAL DISEASES	Lecture	Lecture hall 1	Dr. Sidra	MCQs, SEQs	
 To describe the anatomy of the anus and anal canal and their 					
relationship to surgical disease and its treatment					
 Explain the pathology, clinical presentation of diseases that 					
affect the anus and anal canal					
 Enlist the common perianal diseases 					
 Enumerate causes of painful and painless bleeding per rectum 					
 Define and Classify fistula-in-ano 					
 Define fissure and explain its clinical presentation 					
 Define and Classify Perianal Abscess and its clinical 					
presentation					
 Define and classify haemorrhoids. 					
 Enlist the risk factors for haemorrhoids 					
PERFORATED PEPTIC ULCER:	Lecture	Lecture hall 1	Dr. Sidra	MCQs, SEQs	
 To summarize the basic anatomy and physiology of stomach 					
and duodenum					
 Describe the pathophysiology of development of peptic ulcer 					
 Enlist the causes of peptic ulcer 					
 Differences between duodenal ulcer and gastric ulcer 					
presentation.					
 Enumerate the risk factors for perforated peptic ulcer 					
 Explain the clinical presentation of patient with perforated 					
peptic ulcer					
NUTRITION IN SURGICAL PATIENTS:	Lecture	Lecture hall 1	Dr. Sidra	MCQs, SEQs	
 Explain The causes and consequences of malnutrition in the 					
surgical patient					





	 ,	
Describe the Fluid and electrolyte requirements in the pre-		
and postoperative patient		
 Discuss The nutritional requirements of surgical patients 		
 Enlist The different methods of providing nutritional support 		
and their complications.		

DEPARTMENT OF RESEARCH							
By the end of lecture/module, first professional MBBS student will be able to:							
TOPIC AND OBJECTIVES	TEACHING	LOCATION	FACILITATOR	ASSESSMENT			
	STRATEGY						
HOW TO REVIEW THE LITERATURE-1	Lecture	Lecture hall 1	Dr. Ruqaya	Formative			
Define the literature review							
 Recall the sources of literature review 							
HOW TO REVIEW THE LITERATURE-2	Lecture	Lecture hall 1	Dr. Ruqaya	Formative			
 Describe the steps of literature review 							
 Recall the search engines and techniques of reviewing 							
literature							
REINFORCEMENT OF THE PREVIOUS LECTURE	_			Formative			
Define the literature review	Lecture	Lecture hall 1	Ms. Maria Rahim				
 Recall the sources of literature review 							
 Describe the steps of literature review 							





Recall the search engines and techniques of reviewing	·	
literature		

DEPARTMENT OF ISLAMIAT								
By the end of lecture/module, first professional MBBS student will be able to:								
TOPIC AND OBJECTIVES	TEACHING	LOCATION	FACILITATOR	ASSESSMENT				
	STRATEGY							
PERIOD OF KHILAFAT-E-RASHIDA (HAZRAT ABUBAKAR	Lecture	Lecture hall 1	Madam Uzma	BCQs, SEQs				
SIDDUI RZ)			Waseem					
 Explain the caliphate of Hazrat Abubakar RZ 								
PERIOD OF KHILAFAT-E-RASHIDA (HAZRAT UMAR	Lecture	Lecture hall 1	Madam Uzma	BCQs, SEQs				
FAROOQ RZ)			Waseem					
Explain the caliphate of Hazrat Umar Farooq RZ								
PERIOD OF KHILAFAT-E-RASHIDA (HAZRAT USMAN RZ)	Lecture	Lecture hall 1	Madam Uzma	BCQs, SEQs				
 Explain the caliphate of Hazrat Usman RZ 			Waseem					
PERIOD OF KHILAFAT-E-RASHIDA (HAZRAT ALI RZ)	Lecture	Lecture hall 1	Madam Uzma	BCQs, SEQs				
• Explain the caliphate of Hazrat Ali RZ			Waseem					

DEPARTMENT OF MEDICINE





GASTROINTESTINAL TRACT (GIT) MODULE GUIDE 2022							
By the end of lecture/module, first professional MBBS student will be a	able to:						
TOPIC AND OBJECTIVES	TEACHING	LOCATION	FACILITATOR	ASSESSMENT			
	STRATEGY						
PEPTIC ULCER DISEASE I AND II	Lecture	Lecture hall 1	Dr. Masooda	BCQs, SEQs,			
 Describe pathogenesis of peptic ulcer disease 			Fatima	OSCE			
 Identify clinical features and diagnostic investigations of the disease 							
Develop a treatment plan to control the disease							
FUNCTIONAL DYSPEPSIA							
 Define and diagnose functional dyspepsia on the basis of ROME CRITERIA 							
 Review drugs which can be used to treat the disease 							
GERD							
 Define gastroesophageal reflux disease and describe its risk factors and pathogenesis 							
 Distinguish common clinical signs and symptoms of the disease 							
Enlist the diagnostic investigations and prescribe treatment of the disease							
IRRITABLE BOWEL SYNDROME							
 Define and describe irritable bowel syndrome according to 							
ROME criteria							
 Discuss the pathogenesis and clinical presentation of disease 							
State regarding diagnostic investigation and treatment							
CIRRHOTIC LIVER DISEASE							
Identify etiology and pathogenesis of cirrhotic liver disease							





 Restate various clinical presentations of cirrhotic liver disease 		
 Analyze the role of investigations to diagnose the disease 		
 Formulate plan for treatment of signs and symptoms as well 		
as precautious measures to decrease risk of complications		
INFLAMMATORY BOWEL DISEASE		
 Define and classify inflammatory bowel disease 		
 Discuss its etiology and pathogenesis 		
 Distinguish the clinical features of ulcerative colitis and 		
crohn's disease		
• Enlighten the investigations done for diagnosis and prescribe		
treatment of the disease		
CONSTIPATION		
 Describe etiology and pathogenesis of constipation 		
 Demonstrate diagnostic investigations and treatment of 		
constipation		

DEPARTMENT OF PEARLS							
By the end of lecture/module, first professional MBBS student will be a	able to:						
TOPIC AND OBJECTIVES TEACHING LOCATION FACILITATOR ASSESSMENT							
	STRATEGY						
LECTURE 1	Lecture	Lecture hall 1	Dr. Talal	Formative			
Discuss reflective practices.							
• Develop a reflective portfolio.							
•							
LECTURE 2:	Lecture	Lecture hall 1	Dr. Saima	Formative			





Feedback session on reflective portfolios		

CASE-BASED LEARNING (CBL)





1. JAUNDICE

By the end of lecture/module, first professional MBBS student will be able to:

- Describe the structure of liver. What is portal triad?
- What are hepatic sinusoids? What are the cells present in liver?
- What is jaundice?
- Classification of jaundice?
- What are the types of bilirubin?
- How jaundice is diagnosed?

2.ESOPHAGEAL DISORDER

By the end of lecture/module, first professional MBBS student will be able to:

- What is dysphagia?
- What is achalasia?
- What are the sign and symptoms of achalasia?
- What are the causes of achalasia?
- Define stages of swallowing?
- What is the Role of esophageal peristalsis in normal swallowing
- What is LES and mention its function
- Define innervations of lower esophageal sphincter.
- How many parts does the esophagus have?
- Name the epithelium.
- Name the muscles present in different parts of esophagus?
- What is the blood supply in all 3 parts of esophagus?





TIME TABLES FOLLOWED IN THE GIT MODULE:

BAQAI MEDICAL COLLEGE

DATE & DAY	8:30-9:30	9:30-10:15	10:15- 10:30	10:30-11:30	11:30-12:30	12:30-1:15	1:15- 1:30	1:30-3:30
24-10-2022 MONDAY	Blood Mod	ule exam		Blood module exam				Blood module exam
25-10-2022	PHYSIOLOGY	ANATOMY		ANATOMY	BIOCHEMISTRY	HISTOLOGY		PHYSIOLOGY
TUESDAY	Gut Wall-I	Introduction of		GROSS of	Digestion of carbohydrates 1	TONGUE		Gut Wall-II
		oral cavity		TONGUE				
26-10-2022	EMBRYO	PHYSIOLOGY		ANATOMY	PHYSIOLOGY	SDL		EMBRYO
WEDNESDAY	Development of	Enteric nervous		GROSS of	Enteric nervous system-II			Development of
	TONGUE	system-I		salivary gland				salivary gland
27-10-2022	BIOCHEMISTRY	HISTOLOGY		PATIENT	PHYSIOLOGY	SDL		PHYSIOLOGY
THURSDAY	Digestion &	salivary glands		SAFTEY	Autonomic control of GIT-I			Autonomic control of
	absorption of carbohydrate 2							GIT-II





GASTROINTESTINAL TRACT (GIT) MODULE GUIDE 2022

28-10-2022	BIOCHEMISTRY	ANATOMY	SDL	BIOCHEMISTRY	ISLAMIAT	ANATOMY
FRIDAY	Digestion of lipids	LRC		Absorption of lipids		Mastication Muscles

DATE & DAY	8:30-9:30	9:30-10:15	10:15- 10:30	10:30- 11:30	11:30-12:30	12:30-1:15	1:15- 1:30	1:30-3:30
31-10-2022 MONDAY	PHYSIOLOGY GIT Reflexes-I	ANATOMY ABDOMINAL WALL		ANATOMY	bdomen examination)	Digestion and absorption of proteins 1		ANATOMY ABDOMINAL QUADRANTS
1-11-2022 TUESDAY	ANATOMY PHARYNX	MEDICINE		ANATOMY	bdomen examination)	SDL		BIOCHEMISTRY Digestion and absorption of proteins2
2-11-2022 WEDNESDAY	HISTOLOGY OESOPHAGUS AND STOMACH	PHYSIOLOGY GIT Reflexes-II		PRACTICAL: PHYSIO (Abdomen examination)		SDL		ANATOMY LRC PHARYNX module





GASTROINTESTINAL TRACT (GIT) MODULE GUIDE 2022

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				ANATOMY BIOCHEM	(tongue) (Estimation of Protein)		
3-11-2022 THURSDAY	ANATOMY PERITONEUM	PHYSIOLOGY Deglutition-I		РАТНО	PHYSIOLOGY Deglutition-II	BIOCHEMISTRY Gp Discussion	PHYSIOLOGY Motor functions of stomach-I
4-11-2022 FRIDAY	MEDICINE	BIOCHEMISTRY Gastric function Test 1		SDL	PHARMACOLOGY	ISLAMIAT	ANATOMY LRC

DATE & DAY	8:30-9:30	9:30-10:15	10:15-	10:30-11:30	11:30-12:30	12:30-1:15	1:15-1:30	1:30-3:30
			10:30					
7-11-2022	ANATOMY	PHYSIOLOGY		PRACTICAL:		ANATOMY		PHYSIOLOGY
MONDAY	Esophagus	Motor functions of stomach-II		PHYSIOLOGY :SGT ANATOMY: salivary	glands	stomach structure,		Movement of small intestine-I
		of stomach-II		BIOCHEM : clinical in	nterpretations	relations		





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8-11-2022 TUESDAY	Gastric function Test 2	Surgery		PRACTICAL: PHYSIOLOGY: SGT ANATOMY: salivary glands BIOCHEM: clinical interpretation		SDL	PHYSIOLOGY Movement of small intestine-II
9-11-2022 WEDNESDAY OFF IQBAL DAY	ANATOMY stomach N/S AND B/S	SDL		PRACTICAL: PHYSIOLOGY; SGT ANATOMY: salivary BIOCHEM: Clinical in	glands	COMMUNITY MEDICINE	EMBRYOLOGY Fore gut
10-11-2022 THURSDAY	MEDICINE	PHYSIOLOGY Movements of colon-I		ANATOMY Jejunum & ileum	S	SDL .	ANATOMY Colon, Sigmoid colon
11-11-2022 FRIDAY	ANATOMY Cecum, appendix	SURGERY		SDL		CBL revious topics	PHYSIOLOGY Movements of colon-I

DATE & DAY	8:30-9:30	9:30-10:15	10:15- 10:30	10:30-11:30	11:30-12:30	12:30-1:15	1:15- 1:30	1:30-3:30
14-11-2022	PHYSIOLOGY	SURGERY		Practical		SDL		PHYSIOLOGY
MONDAY				HISTOLOGYO	esophagus stomach			Defecation-II
				BIOCHEM: Es	timation of Albumin			





	Defecation-I		PHYSIO:(Abd Inspection)	omen examination-		
15-11-2022 TUESDAY	Carbohydrates metabolism	PEARLS	DIOCHEM. Estimation of Albumin		PHYSIOLOGY Saliva & functions	EMBRYOLOGY Development of GUT
16-11-2022 WEDNESDAY	MEDICINE	BIOCHEMISTRY Glycolysis 1	BIOCHEM: E	HISTOLOGYoesophagus stomach BIOCHEM: Estimation of Albumin PHYSIO: (Abdomen examination-		PHYSIOLOGY FORMATIVE ASSESMENT
17-11-2022 THURSDAY	BIOCHEMISTRY Glycolysis 2	MEDICINE	SURGERY	SDL		ANATOMY rectum & anal canal
18-11-2022 FRIDAY	.BIOCHEMISTRY TCA cycle 1	RESEARCH	BIOETHICS	EMBRYOLOGY Development of GUT	ISLAMIAT	PHYSIOLOGY Secretions of gastric acid-I





DATE & DAY	8:30-9:30	9:30-10:15	10:15- 10:30	10:30-11:30	11:30-12:30	12:30-1:15	1:15- 1:30	1:30-3:30
21-11-2022 MONDAY	BIOCHEMISTRY TCA cycle 2	РАТНО		Anatomy Poster/ Model Competition				Anatomy Poster/Model Competition
22-11-2022 TUESDAY	PHYSIOLOGY Pancreatic secretion-I	COMMUNITY MEDICINE		Anatomy Poster/Model Competition				Anatomy Poster/Model Competition
23-11-2022 WEDNESDAY	MEDICINE	PEARL			omy Poster/N Competition			Anatomy Poster/Model Competition
24-11-2022 THURSDAY	PHYSIOLOGY FORMATIVE ASSESMENT	PEARL		Anatomy Poster/Model Competition			Anatomy Poster/Model Competition	
25-11-2022 FRIDAY	PHYSIOLOGY Secretion of Bile	RESEARCH		Anatomy Poster/Model Competition			Anatomy Poster/Model Competition	





DATE & DAY	8:30-9:30	9:30-10:15	10:15- 10:30	10:30-11:30	11:30-12:30	12:30-1:15	1:15- 1:30	1:30-3:30
28-11-2022 MONDAY	РАТНО	BIOCHEMISTRY gluconeogenesis		Practical HISTO small intestine BIOCHEM :clinical interpretation PHYSIO(Abdomen examination- Palpation)		SDL		ANATOMY POSTER/MODEL COMPETITION AWARDS DISTRIBUTION
29-11-2022 TUESDAY	ANATOMY Abdominal aorta & branches	PHARMA		Practical HISTO small intestine BIOCHEM: clinical interpretation PHYSIO(Abdomen examination- Palpation)		SDL	-	PHYSIOLOGY Functions of Bile salt-I
30-11-2022 WEDNESDAY	ANATOMY OMENTA	PHYSIOLOGY Functions of Bile salt-II		Practical HISTO small intestine BIOCHEM: clinical interpretation PHYSIO(Abdomen examination- Palpation)		SDL		CBL





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1-12-2022	BIOCHEMISTRY	SURGERY	COMMUNITY	SDL	FORENSIC	ANATOMY
THURSDAY	MCQS		MEDICINE		MEDICINE	Inferior Vena cava &tributaries
	DISCUSSION					
2-12-2022	MEDICINE	HISTOLOGY	SDL		ISLAMIAT	EMBRYOLOGY
FRIDAY		SMALL INTEST				Development of STOMACH
						_

DATE & DAY	8:30-9:30	9:30-10:15	10:15- 10:30	10:30-11:30	11:30-12:30	12:30-1:15	1:15- 1:30	1:30-3:30
5-12-2022 MONDAY	PHYSIOLOGY Functions of colon	LIBRARY		Practical HISTOLOGY large in BIOCHEM: graph for PHYSIO (Abdomen ex		SDL		PHYSIOLOGY MCQ- Based Activity-I
6-12-2022 TUESDAY	PHYSIOLOGY Functions of colon II	MEDICINE		Practical HISTOLOGYlarge intestine BIOCHEM: graph formation PHYSIO (Abdomen examination Percussion)		SDL		EMBRYO DEVELOPMENT OF EXTRA BILLARY APPARATUS





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7-12-2022 WEDNESDAY	BIOCHEMISTRY Glycogen metabolism 1	BIOETHICS	Practical HISTOLOGYlarge intestine BIOCHEM: graph formation		SDL	PHYSIOLOGY MCQ- Based Activity-II
			PHYSIO (Abdomen ex			
8-12-2022 THURSDAY	SURGERY	FORENSIC MEDICINE	SDL	SDL		CBL
9-12-2022 FRIDAY	PAEDS	MEDICINE	PHYSIOLOGY Activity- OSPEs	ANATOMY LRC SPOTTING	ISLAMIAT	BIOCHEMISTRY Glycogen metabolism 2

DATE & DAY	8:30-9:30	9:30-10:15	10:15- 10:30	10:30-11:30	11:30-12:30	12:30-1:15	1:15- 1:30	1:30-3:30





12-12-2022 MONDAY	ANATOMY SEQ ACTIVITY	LIBRARY	PRA HIST BIOG PHY	ACTICAL: TO: rectum CHEM: group pres (SIO: (Abdomen excultation)		SDL	PHYSIOLOGY SEQ-Based Activity-I
13-12-2022 TUESDAY	PHYSIOLOGY Functions of liver	SURGERY	HIST BIOG PHY	CTICAL: TO: rectum CHEM: group pres /SIO: (Abdomen ex		MEDICINE	BIOCHEMISTRY Liver function test1
14-12-2022 WEDNESDAY	ANATOMY Liver	COMMUNITY MEDICINE	HIST BIOG PHY	CTICAL: TO: rectum CHEM: group pres (SIO: (Abdomen ex		SDL	PHYSIOLOGY SEQ-Based Activity-II
15-12-2022 THURSDAY	RESEARCH	PHYSIOLOGY Functions of liver		SURGERY	SD	L	EMBRYO DEVELOPMENT OF EXTRA BILLARY APPARATUS
16-12-2022 FRIDAY	BIOCHEMISTRY Liver function test2	MEDICINE]	ISLAMIAT	EMBRYO DEVELOPMENT of mid gut	SDL	PHYSIOLOGY Achalasia and megacolon





DATE & DAY	8:30-9:30	9:30-10:15	10:15- 10:30	10:30-11:30	11:30-12:30	12:30-1:15	1:15- 1:30	1:30-3:30
19-12-2022 MONDAY	BIOCHEMISTRY Nutrition 1	EMBRYO DEVELOPMENT of HIND GUT		PRACTICAL HISTO: anal canal BIOCHEM: OSPE practice PHYSIO: Group Discussion		SDL		PHYSIOLOGY Formative Assessment
20-12-2022 TUESDAY	SURGERY	PHYSIOLOGY Peptic ulcer	PRACTICAL HISTO: anal canal BIOCHEM: OSPE practice PHYSIO: Group Discussion		SDL		BIOCHEMISTRY QUIZ	
21-12-2022 WEDNESDAY	MEDICINE	РАТНО	PRACTICAL HISTO: anal canal BIOCHEM: OSPE practice PHYSIO: Group Discussion		SDL		PHYSIOLOGY OSPE Practice-I	
22-12-2022 THURSDAY	BIOCHEMISTRY Nutrition 2	ANATOMY LRC SPOTTING	PHYSIOLOGY Vomiting & Diarrhea		SDL		CBL	





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23-12-2022	GIT MODULE EXAM	GIT MODULE EXAM	GIT MODULE EXAM
FRIDAY			

REFERENCE BOOKS AND OTHER READING RESOURCES:

Gross Anatomy	BD Chaurasia's Handbook of GENERAL ANATOMY Netter Atlas of Human Anatomy			
Embryology	Langman's Embryology			
Histology	Laiq Hussain Histology			
Physiology	Guyton and Hall. Textbook of Medical Physiology, 13 th Edition. Ganong's Review of Medical Physiology, 24th Edition.			
Pathology	Robin's Basic Pathology-10 th Edition			
Pharmacology	 Essential Bertram G. Katzung. Basic and Clinical Pharmacology, 14th Edition. 2017. Katzung and Trevor's pharmacology Examination and Board Review 11th Edition 2015. Recommended 			





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	Lippincott's illustrated review of Pharmacology. 6 th Edition. 2015.
Islamiat	
	Hameed ullah Muhammad, "Emergence of Islam", IRI,
	Islamabad, "Muslim Conduct of State" and "Introduction to Islam".
	 Hussain Hamid Hassan, "An Introduction to the Study of Islamic Law" leaf Publication Islamabad, Pakistan.
	Abdul Qayyum Natiq, "Sirat-E-Mustaqim.
	Farkhanda Noor Muhammad, "Islamiat".
	 Dr. Muhammad Zia-ul-Haq, "Introduction to Al Sharia Al Islamia" Allama Iqbal Open University, Islamabad (2001).

ASSESSMENT METHODS:

THEORY:

- **Essay Questions- Short Essay Questions (SEQs)** are used to assess objectives covered in each module.
 - 6 SEQs are given (no choice).
 - Time duration 90 minutes.
 - Students write their answer in an answer sheet.
- **Best Choice Questions (BCQs)** also known as MCQs (Multiple Choice Questions) are used to assess objectives covered in each module.
 - A BCQ has a statement or clinical scenario followed by four options (likely answer).
 - Students after reading the statement/scenario select ONE, the most appropriate response from the given list of options.
 - Correct answer carries one mark, and incorrect 'zero mark'. There is no negative marking.
 - Students mark their responses on specified computer-based/OMR sheet designed for BMC, BMU.





SPE/OSCE: Objective Structured Practical/Clinical Examination:

- Each student will be assessed on the same content and have same time to complete the task.
- Comprise of 12-25 stations.
- Each station may assess a variety of clinical tasks; these tasks may include history taking, physical examination, skills and application of skills and knowledge.
- Stations are observed, unobserved, interactive and rest stations.
- Observed and interactive stations will be assessed by internal or external examiners.
- Unobserved will be static stations in which there may be an X-ray, Labs reports, pictures, clinical scenarios with related questions for students to answer.
- Rest station is a station where there is no task given and in this time student can organize his/her thoughts.

INTERNAL EVALUATION:

- Students will be assessed to determine achievement of module objectives through the following: o **Module Examination:** will be scheduled on completion of each module. The method of examination comprises theory exam which includes BCQs and OSPE (Objective Structured Practical Examination).
- > Graded Assessment of students by Individual Department: Quiz, viva, practical, assignment, small group activities such as CBL, online assessment, ward activities, examination, and Practical journals.
- Marks of both modular examination and graded assessment will constitute 20% weightage which will be added to Annual Examination.

FORMATIVE ASSESSMENT:

- Individual department may hold quiz or short answer questions to help students assess their own learning.
- The marks obtained are not included in the internal evaluation.





