Third Year MBBS 2023

Study Guide

Foundation Module -I

Date: 18th February, 2023 by DME, New Teaching Block

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Foundation Module Team

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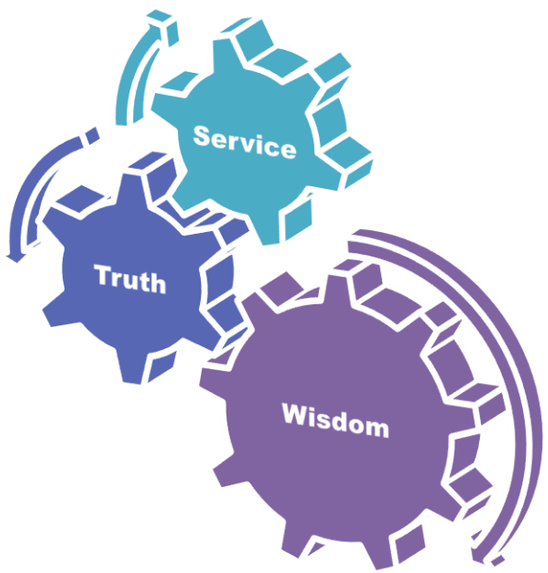
University Moto, Vision, Values & Goals

RMU Motto



Mission Statement

To impart evidence-based research-oriented health professional education in order to provide best possible patient care and inculcate the values of mutual respect, ethical practice of healthcare and social accountability.

Vision and Values

Highly recognized and accredited centre of excellence in Medical Education, using evidence-based training techniques for development of highly competent health professionals, who are lifelong experiential learner and are socially accountable.

Goals of the Undergraduate Integrated Modular Curriculum

The Undergraduate Integrated Learning Program is geared to provide you with quality medical education in an environment designed to:

- Provide thorough grounding in the basic theoretical concepts underpinning the practice of medicine.
- Develop and polish the skills required for providing medical services at all levels of the Health care delivery system.
- Help you attain and maintain the highest possible levels of ethical and professional conduct in your future life.
- Kindle a spirit of inquiry and acquisition of knowledge to help you attain personal and professional growth & excellence.

Module I - Foundation Module

Introduction: Foundation module provides integration of core concepts that underlie the foundation of basic sciences and their use in clinical medicine. This will eventually lead to develop critical thinking for integration and application of basic knowledge for clinical application.

Rationale: The foundation module is designed to impart basic knowledge about Pharmacology, Pathology, Forensic Medicine, Community Medicine, Research, Medicine & Surgery. This knowledge will serve as a base on which the student will construct further knowledge about the etiology, pathogenesis and prevention of diseases; the principles of their therapeutics and management.

Module Outcomes

Each student will be able to:

Knowledge

Acquire knowledge about the basic terminologies used in Pharmacology, Pathology & Forensic Medicine as well as the concepts of diseases in the community

- Use technology based medical education including Artifical Intelligence.
- Appreciate concepts & importance of Family Medicine , Biomedical Ethics And Research.

Skills

Interpret and analyze various practicals of Pre-clinical Sciences

Attitude

- Demonstrate a professional attitude, team building spirit and good communication skills

This module will run in 4 weeks duration. The content will be covered through introduction of topics. Instructional strategies are given in the time table and learning objectives are given in the study guides. Study guides will be uploaded on the university website. Good luck!

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Section I - Terms & Abbreviations

Contents

Tables & Figures

Table1.

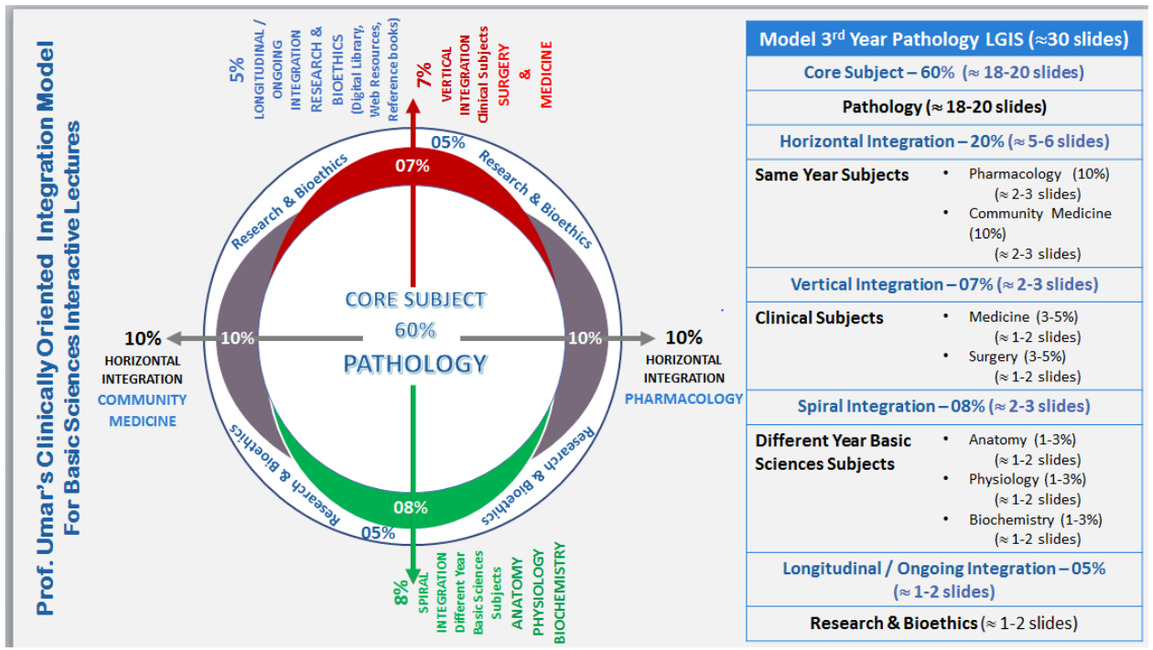
Domains of learning according to Blooms Taxonomy

Sr. #	Abbreviation	Domains of learning
1.	C	**Cognitive Domain:** knowledge and mental skills.
	• C1	Remembering
	• C2	Understanding
	• C3	Applying
	• C4	Analyzing
	• C5	Evaluating
	• C6	Creating
2.	P	**Psychomotor Domain:** motor skills.
	• P1	Imitation
	• P2	Manipulation
	• P3	Precision
	• P4	Articulation
	• P5	Naturalization
3.	A	**Affective Domain:** feelings, values, dispositions, attitudes, etc
	• A1	Receive
	• A2	Respond
	• A3	Value
	• A4	Organize
	• A5	Internalize

Teaching and Learning Methodologies / Strategies

Large Group Interactive Session (LGIS)

The large group interactive session is structured format of Prof Umar Model of Integrated lecture. It will the followed for delivery of all LGIS. Lecturer will introduce a topic or common clinical condition and explains the underlying phenomena through questions, pictures, videos of patients, interviews and exercises, etc. Students are actively involved in the learning process.



Model 3rd Year Pathology LGIS (≈30 slides)	
Core Subject – 60% (≈ 18-20 slides)	
Pathology (≈ 18-20 slides)	
Horizontal Integration – 20% (≈ 5-6 slides)	
Same Year Subjects	• Pharmacology (10%) (≈ 2-3 slides) • Community Medicine (10%) (≈ 2-3 slides)
Vertical Integration – 07% (≈ 2-3 slides)	
Clinical Subjects	• Medicine (3-5%) (≈ 1-2 slides) • Surgery (3-5%) (≈ 1-2 slides)
Spiral Integration – 08% (≈ 2-3 slides)	
Different Year Basic Sciences Subjects	• Anatomy (1-3%) (≈ 1-2 slides) • Physiology (1-3%) (≈ 1-2 slides) • Biochemistry (1-3%) (≈ 1-2 slides)
Longitudinal / Ongoing Integration – 05% (≈ 1-2 slides)	
Research & Bioethics (≈ 1-2 slides)	

Figure 1. Prof Umar's Model of Integrated Lecture

Small Group Discussion (SGD)

This format helps students to clarify concepts acquire skills and attitudes. Sessions are structured with the help of specific exercises such as patient case, interviews or discussion topics or power point presentations. Students exchange opinions and apply knowledge gained from lectures, SGDs and self study. The facilitator role is to ask probing questions, summarize and helps to clarify the concepts.

Table 2.

Standardizationof teaching content in Small Group Discussions

S.No	Topics	Approximate %
1	Title Of SGD	
2	Learning Objectives from Study Guides	
3	Horizontal Integration	5%+5%=10%
4	Core Concepts of the topic	60%
5	Vertical Integration	20%
6	Related Advance Research points	3%
7	Related Ethical points	2%

Table 3.

Steps of taking Small Group Discussions

Step 1	**Sharing of Learning objectives by using students Study guides**	**First 5 minutes**
Step 2	Asking students pre-planned questions from previous teaching sessionto develop co-relation (these questions will be standardized)	5minutes
Step 3	Students divided into groups of three and allocation of learning objectives	5minutes
Step 4	ACTIVITY: Students will discuss the learning objectives among themselves	15 minutes
Step 5	Each group of students will present its learning objectives	20 min
Step 6	Discussion of learning content in the main group	30min
Step 7	Clarification of concept by the facilitator by asking structured questions from learning content	15 min
Step 8	Questions on core concepts	
Step 9	Questions on horizontal integration	
Step 10	Questions on vertical integration	
Step 11	Questions on related research article	
Step 12	Questions on related ethics content	
Step 13	Students Assessment on online MS teams (5 MCQs)	5 min
Step 14	Summarization of main points by the facilitator	5 min
Step 15	Students feedback on the SGD and entry into log book	5 min
Step 16	Ending remarks	

Self Directed Learning (SDL)

- Self- directed learning is a process where students take primary charge of planning, continuing and evaluating their learning experiences.
- Time Home assignment
- Learning objectives will be defined
- Learning resources will be given to students = Text book (page no), web site
- Assessment: i Will be online on LMS (Mid module/ end of Module)

  ii.OSPE station

Case Based Learning (CBL)

- It's a learner centered model which engages students in discussion of specific scenarios that resemble typically are real world examples.
- Case scenario will be given to the students
- Will engage students in discussion of specific scenarios that resemble or typically are real-world examples.
- Learning objectives will be given to the students and will be based on

i. To provide students with a relevant opportunity to see theory in practice
ii. Require students to analyze data in order to reach a conclusion.
iii. Develop analytic, communicative and collaborative skills along with content knowledge.

Section II-Learning Objectives, Teaching Strategies & Assessments

Contents

Orientation Day Introduction to New Teaching Block & Hospital Disciplines

Medical Education And Integrated Disciplines				
Topic	**Facilitator**	**Learning Objectives**	**Teaching Strategy**	
Introduction to RMUand Allied Hospitals	Vice Chancellor	Honorable VC will welcome and introduce the University and Allied Hospitals.	LGIS	
The students will be able to:				
Introduction to MedicalEducation Department	Assistant Director DME	• Introduce DME • Define Medical Education • Discuss its role • Appreciate role of DME in their curriculum • Appreciate role of DME in attendance monitoring • Illustrate the application • Leave submission process	LGIS	
Introduction to Pre-Clinical Sciences	Implementation Incharge 3rd Year MBBS	• Introduction to Departments • Introduction to Hospitals • Discussion about Teaching & Learning strategies • Assessment Model • Discipline	LGIS	
Introduction to Medicine & Allied	Lecture by Dean of Medicine & Allied	• Define medicine • Discuss History of medicine • Describe Islamic concepts of medicine • Identify Basic sciences involved in medicine • Identify Clinical subjects and their role • Describe practice of medicine • Describe the process	LGIS	

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Learning objectives
Week 1

Code No	Topic	Discipline	At the end of the lecture student should be able to	C/P/A	Teaching strategies	Assessment tools
L-1	Orientation lecture					
L-2	Surgical ethics	**Surgery**	• Establish importance of ethics in operating room **C3**	**C3**	**LGIS**	**MCQs**
			• Establish common ethical issues in operating room (Exposure of body, Dress, People gathering and traffic, Noise, Comments and behavior, Honesty, Consent.) **C3**	**C3**		
L-3	Reversible and irreversible cell injury	**Pathology**	• Define Ischemia and cell injury, **C1**	**C1**	**LGIS**	**MCQs SEQs VIVA**
			• Define Reversible and Irreversible Cell injury	**C1**		
			• Describe causes of cell injury and ischemia, **C2**	**C2**		
			• Describe morphology of reversible & irreversible cell injury **C2**	**C2**		
			• Explain depletion of ATP, mitochondrial damage and dysfunction, influx of Calcium and loss of calcium, hemostasis, free radical injury(oxidative stresses), defects in membrane permeability, damage to DNA and protein. **C2**	**C2**		
			• Define adaptation **C1**	**C1**		
			• Classify types of adaptation **C1**	**C1**		
			• Describe mechanism of hypertrophy hyperplasia, atrophy and metaplasia **C2**	**C2**		
L-4	Introduction to Forensic Medicine	**Forensic Medicine**	• Define forensic medicine, medical jurisprudence, state medicine and forensic pathology **C1**	**C1**	**LGIS**	**MCQs SEQs VIVA**
			• Define inquest with examples of its application in Medicolegal work **C1**	**C1**		
			• Describe various methods of judicial investigations **C2**	**C2**		
L-5	Iemaniyat-I	**The Holy Quran**	Comprehend about the Ayat of Sorat Furqan	**C3**	**LGIS**	**MCQ SEQ**
L-6	Medicine in Practice	**Medicine**	• Recognize importance of clinical medicine and context for theoretical learning so that one can see how learning about body system and	**C3**	**LGIS**	**MCQs**

			social sciences are applied to care of patient. **C3**			
			• Recognize importance of clinical decision making. **C3**	**C3**		
			• Explain clinical reasoning and clinical skills. **C2**	**C2**		
			• Understands problems with diagnostic errors. **C3**	**C3**		
			• Explain the use and interpretation of diagnostic tests. **C2**	**C2**		
			• Analysis of patient- physician relationship. **C4**	**C4**		
			• Explain evidence based medicine. **C2**	**C2**		
			• Explain expanding role of physician **C2**	**C2**		
S-1	Cellular adaptation	**Pathology**	• Classify various cellular adaptations to stress	**C1**	**SGD**	**MCQs, SEQs/VIVA**
S-2	Routes of drug administration and dosage forms	**Pharmacology**	• Enlist different routes of drug administration	**C1**	**SGD**	**OSPE**
			• Discuss the merits and demerits of each route of administration **C2**	**C2**		
			• Enumerate different dosage forms **C1**	**C1**		
			• Discuss the utility of different dosage form in different clinical situations **C2**	**C2**		
S-3	Routes of drug administration and dosage forms	**Pharmacology**	• Enlist different routes of drug administration	**C1**	**SGD**	**OSPE**
			• Discuss the merits and demerits of each route of administration **C2**	**C2**		
			• Enumerate different dosage forms **C1**	**C1**		
			• Discuss the utility of different dosage form in different clinical situations **C2**	**C2**		
L-7	Patient safety and quality improvement	**Surgery**	• Discuss the importance of understanding human behavior if patient care is to improve.	**C2**	**LGIS**	**MCQs** **SEQs**
			• Describe the importance of patient safety and the scale of the problem.	**C2**		
			• Explain medical error and its definitions including adverse events and near misses.	**C2**		
			• Discuss patient safety strategies and solutions.	**C3**		
L-8	Absorption of drugs	**Pharmacology**	• Define absorption of drugs. C1	**C1**	**LGIS**	**MCQs** **SEQs** **VIVA**
			• Describe the processes by which drugs are absorbed through different barriers.C2	**C2**		
L-9	Importance of Medical consent	**Forensic Medicine**	• Describe various types of medical evidences	**C2**	**LGIS**	**MCQs** **SEQs** **VIVA**
			• Describe principles of a medical witness **C2**	**C2**		
S-4	Absorption of drugs	**Pharmacology**	• Discuss different factors (drug based and biological) affecting absorption of drugs.C2	**C2**	**SGD**	**MCQs** **SEQs**
L-10	Medical ethics introduction	**Medicine**	• Recognize and evaluate different ethical problems including gap block, priority setting, moral dilemma and resolving conflict. **C1**	**C1**	**LGIS**	**MCQs** **SEQs** **VIVA**

			• Analysis different ethical problems and knows different approaches. **C4**	**C4**		
			• Recognize importance of informed consent before examining a patient or any procedure. **C1**	**C1**		
			• Recognize importance of counseling of patients and attendants in different clinical settings. **C1**	**C1**		
			• Recognize respect for patient autonomy and acting in best interest of patient and maintaining confidentiality. **C1**	**C1**		
S-5	Cellular aging & intracellular accumulations	**Pathology**	• Define the Mechanisms that causes and counteracts cellular aging, **C1**	**C1**	**SGD**	**MCQs** **SEQs** **VIVA**
			• Discuss the causes of DNA damage **C2**	**C2**		
			• Describe mechanism of decreased cellular replication **C2**	**C2**		
			• Explain role of telomers and telomerase and defective protein homeostasis leading to cellular aging **C2**	**C2**		
			• Define intracellular accumulations **C1**	**C1**		
			• Describe causes , mechanisms and clinical correlations of the following abnormal accumulations in cells and tissues: **C2**	**C2**		
P-1	Pharmacological calculations-I	**Pharmacology**	• Solve the pharmacological calculations using the basic formulae		**Practical**	**OSPE**
P-2	Documentary record (ID Card)	**Forensic Medicine**	• Describe Importance of personal identity. Describe the Parameters of personal identity with special emphasis on the CNIC **C2**	**C2**	**Practical**	**OSPE**
			• Enlist the detail of entries on CNIC.			
			• Identify a person in the light of CNIC.			
P-3	Cellular adaptations to stress	**Pathology**	• Classify various cellular adaptations to stress	**C1**	**Practical**	**OSPE**
			• Identify various clinical conditions which lead to hypertrophy, atrophy and metaplasia	**P2**		
			• Identify the morphology of hypertrophy, atrophy and metaplasia	**P3**		
			• Demonstrate positive attitude towards safe handling of laboratory specimens **A3**	**A3**		

2nd Week

Code no	Topic	Discipline	At the end of the lecture student should be able to	C/P/A	Teaching strategies	Assessment tools
C-1	Pathological calcification	**Pathology**	• Explain causes of calcification in given scenario **C2**	**C2**	**CBL**	**PBQs**
			• Discuss other sites and types of calcification **C2**	**C2**		
			• Discuss morphological appearance and complications of calcification **C2**	**C2**		
			• Differentiate between various types of calcifications with respect to their sites and association with different pathological conditions	**C2**		
			• Apply knowledge in identifying the significance of calcification with normal and abnormal pathological circumstances **P2**	**P2**		
			• Demonstrate collaborative team work and problem solving aptitude **A3**	**A3**		
L-11	Distribution of drugs -I	**Pharmacology**	• Define drug distribution **C1**	**C1**	**LGIS**	**MCQs SEQs VIVA**
			• Describe the distribution of a drug through various body compartments **C2**	**C2**		
			• Define volume of distribution **C1**	**C1**		
			• Express volume of distribution mathematically **C1**	**C1**		
			• Calculate the volume of distribution of given drug			
L-12	Distribution of drugs-II	**Pharmacology**	• Discuss the characteristics of plasma protein binding & their clinical significance.**C2**	**C2**	**LGIS**	**MCQs SEQs VIVA**
			• Describe relationship among volume of distribution & PPB.**C2**	**C2**		
			• Discuss the drug reservoirs in the body.**C2**	**C2**		
			• Discuss different factors affecting distribution of drugs**C2**	**C2**		
L-13	Biotransformation I	**Pharmacology**	• Define Biotransformation **C1**	**C1**	**LGIS**	**MCQs SEQs VIVA**
			• Describe the outcomes and clinical significance of Biotransformation **C2**	**C2**		
			• Enlist types of biotransformation (microsomal and non – microsomal) **C1**	**C1**		
			• Describe characteristics of Phase 1 and Phase 2 biotransformation reactions **C2**	**C2**		
L-14	Biotransformation II	**Pharmacology**	• Discuss different factors affecting biotransformation **C2**	**C2**	**LGIS**	**MCQs SEQs VIVA**
			• Discuss enzyme induction and inhibition **C2**	**C2**		
L-15	Ethics in primary	**Family Medicine**	• Define ethics in medicine	**C1**	**LGIS**	**MCQs**

	care		• to understand the scope of ethical practice • To understand the value and significance of applying ethics in medical practice • To learn the principles of medical ethics	**C2** **C2** **C3**		**SEQs**
L-16	Iemaniyat-II	**The Holy Quran**	Comprehend ayat from Sorat Nimmal	**C3**	**LGIS**	**MCQs**
L-17	Surgical infections	**Surgery**	• The characteristics of the common surgical pathogens and their sensitivities • The classification of sources of infection and their severity. • The clinical presentation of surgical infections. • The indications for and choice of prophylactic antibiotic. • To learn the management of abscesses	**C3** **C2** **C2** **C2**	**LGIS**	**MCQs** **SEQs**
S-6	Role of enzyme inducers and inhibitors in drug metabolism	**Pharmacology**	• Recall the phenomenon of enzyme induction and inhibition **C1** • Recognize the effect of enzyme induction and enzyme inhibition on co administered drugs **C2**	**C1** **C2**	**SGD**	**MCQs** **SEQs** **VIVA**
L-18	Professional Medical negligence, PM& DC rules and regulation governing medical procedures	**Forensic Medicine**	• Define to Medical Ethics **C1** • Define and describe the medical negligence with examples **C1** • Define and describe contributory negligence and precautions against medical negligence **C1** • • Describe the structure of PM &DC **C2** • Describe role and function of PM &DC **C2** • Discuss duties of a Medical practitioner & duties of patients	**C1** **C1** **C1** **C2** **C2**	**LGIS**	**MCQs** **SEQs** **VIVA**
L-19	Acute inflammation vascular events	**Pathology**	• Describe Stimuli for acute inflammation **C2** • Explain vascular Changes including vascular flow, caliber, and increased vascular permeability. **C2** • (vascular Leakage)	**C2** **C2**	**LGIS**	**MCQs** **SEQs** **VIVA**
L-20	Confidentiality and legal medical practice	**Forensic Medicine**	• Preparation of Medical Certificate **C3** • Preparation of Medicolegal report **C3** • Preparation of Postmortem report **C3**	**C3** **C3** **C3**	**LGIS**	**MCQs** **SEQs** **VIVA**
L-21	Sterilization and disinfection	**Surgery**	• To understand: • The concept of sterilization and disinfection. • The importance of aseptic and antiseptic techniques.		**LGIS**	**MCQs** **SEQs** **VIVA**
L-22	Bioavailability	**Pharmacology**	• Define bioavailability **C1**	**C1**	**LGIS**	**MCQs**

			• Express it mathematically and graphically **C1**	**C1**		**SEQs** **VIVA**
			• Describe the clinical significance of bioavailability **C2**	**C2**		
			• Define first pass metabolism **C1**	**C1**		
			• Recognize the effect of first pass metabolism on bioavailability of drugs **C2**	**C2**		
			• Discuss the factors affecting bioavailability of drugs **C2**	**C2**		
			• Differentiate between bioequivalence, therapeutic equivalence & chemical equivalence **C3**	**C3**		
L-23	Half life of drugs	**Pharmacology**	• Define half-life **C1**	**C1**	**LGIS**	**MCQs** **SEQs** **VIVA**
			• Express it mathematically **C1**	**C1**		
			• Discuss phases with graphical representation of half-life.(alpha and beta half life) **C2**	**C2**		
			• Discuss first and zero order kinetics **C2**	**C2**		
			• Describe factors affecting half-life.**C2**	**C2**		
			• Discuss the clinical significance of half-life.**C2**	**C2**		
			• Discuss steady state concentration and its importance**C2**	**C2**		
			• Determine the half life of the given drug.			
L-24	Cellular Events Of Acute Inflammation	**Pathology**	• Describe cellular events (Extravasation and phagocytosis) **C2**	**C2**	**LGIS**	**MCQs** **SEQs** **VIVA**
			• Describe Leukocytes Adhesions and Transmigration **C2**	**C2**		
			• Describe Chemotaxis, Leukocyte Activation, **C2**	**C2**		
			• Phagocytosis and Release of Leukocytes Products			
			• Describe Leukocyte-Induced Tissue injury and Defects in Leukocytes Function **C2**	**C2**		
S-7	Chemical Mediators of inflammation	**Pathology**	• Classify Cell Derived Mediators **C1**	**C1**	**SGD**	**MCQs** **SEQs** **VIVA**
			• Discuss mechanism of actions of all mediators **C2**	**C2**		
			• Demonstrate effective collaboration within the group as a member or leader **A3**	**A3**		
P-4	Pharmacological calculations-II	**Pharmacology**	• Solve the pharmacological calculations using the basic formulae		**Practical**	**OSPE**
P-5	Identification of male and female skull	**Forensic Medicine**	• Describe the distinguishing features of male and female skull **C2**	**C2**	**Practical**	**OSPE**
			• Knowledge of estimation of stature, Race, Age and anatomical details of skull with special reference of MLC/Autopsy **C3**	**C3**		

			• Distinguish male and female skull.			
			• Relate anatomical details of skull with reference to personal identity.			
			• The student keen enough to utilize the basic anatomical details of skull for its Medicolegal utilization			
P-6	Fatty change, Calcification, Pigmentation	**Pathology**	• Enlist various conditions which can lead to fatty change calcification and pigmentation		**Practical**	**OSPE**
			• Identify various clinical conditions which lead to fatty change, calcification and pigmentation **P2**	**P2**		
			• Identify the morphology of fatty change, calcification and pigmentation **P3**	**P3**		
			• Demonstrate collaborative working skills **A2**	**A2**		

3rd Week

Code no	Topic	Discipline	At the end of the lecture student should be able to	C/P/A	Teaching strategies	Assessment tools
SL-1	Morphological Patterns and complications of Acute inflammation	**Pathology**	• Identify Morphologic Patterns of Acute inflammation **C1**	**C1**	**LGIS**	**MCQs SEQs VIVA**
			• Describe the termination events of acute inflammation **C2**	**C2**		
			• Describe complications of Acute inflammation **C2**	**C2**		
			• Demonstrate responsibility of self learning **A3**	**A3**		
L-25	Excretion Of drugs	**Pharmacology**	• Define excretion of drug **C1**	**C1**	**LGIS**	**MCQs SEQs VIVA**
			• Identify sites of drug excretion **C1**	**C1**		
			• Discuss processes involved in drug excretion **C2**	**C2**		
			• Define drug clearance **C1**	**C1**		
			• Express it mathematically **C1**	**C1**		
			• Define extraction ratio **C1**	**C1**		
			• Describe factors affecting CL**C2**	**C2**		
			• Outline the significance of clearance **C2**	**C2**		
S-8	Chronic Inflammation	**Pathology**	• Describe the causes of chronic Inflammation.**C2**	**C2**	**SGD**	**MCQs SEQs VIVA**
			• Describe Role of Macrophages **C2**	**C2**		
L-26	Mechanism of drug action- I	**Pharmacology**	• Discuss different ways of drug interactions **C2** • Chemical & physical interaction • Drug –Receptor interaction	**C2**	**LGIS**	**MCQs SEQs VIVA**
			• Define receptor, its types and distribution **C1**	**C1**		
			• Define ligand **C1**	**C1**		
			• Discuss different receptor ligand interaction (agonist, partial agonist, inverse agonist and antagonist) **C2**	**C2**		
C-2	Granulomatous inflammation	**Pathology**	• Demonstrate the pathogenesis , morphology , etiology, and causes and reasons of granulomatous inflammation **C2**	**C2**	**CBL**	**PBQs**
			• Differentiate between different granulomatous diseases **C4**	**C4**		

			• Identify diagnostic criteria for granulomatous inflammation **P2**	**P2**		
			• Demonstrate clinical reasoning and problem solving attitude with collaborative team work **A3**	**A3**		
L-27	Courts and legal procedures (Pakistan)	**Forensic Medicine**	• Describe Legal procedures in Pakistan **C2**	**C2**	**LGIS**	**MCQs SEQs VIVA**
			• Describe various type of courts in Pakistan **C2**	**C2**		
L-28	Acute and chronic inflammation ;Medical perspective	**Medicine**	• Recognize mechanism of acute inflammation. **C1**	**C1**	**LGIS**	**MCQs SEQs VIVA**
			• Describe what acute phase response are. **C2**	**C2**		
			• Explain acute phase proteins. **C2**	**C2**		
			• Explain mechanism of sepsis and septic shock. **C2**	**C2**		
			• Differentiate between acute and chronic inflammation. **C4**	**C4**		
			• Recognize the investigations involved in inflammation. **C1**	**C1**		
			• Describe presenting modes of inflammation and problems related to it. **C2**	**C2**		
L-29	Iemaniyat-III	**The Holy Quran**	Comprehend Ayat from Sorat Al- Ehzab & Sorat Furqan	**C3**	**LGIS**	**MCQ**
S-9	Consequences of inflammation	**Pathology**	• Explain Systemic effects of inflammation **C2**	**C2**	**SGD**	**MCQs SEQs VIVA**
			• Describe consequences of defective or excessive inflammation **C2**	**C2**		
L-30	Mechanism of drug action- II	**Pharmacology**	• Discuss different receptor signal transduction mechanisms **C2**	**C2**	**LGIS**	**MCQs SEQs**
L-31	Normal distribution curve	**Research**	• Define inferential statistics	**C1**	**LGIS**	**MCQs SEQs VIVA**
			• Explain role of inferential statistics in health research decision making	**C2**		
			• Appreciate concept of normal distribution curve and standard normal curve	**C2**		
			• Enlist properties of normal distribution curve and application of concept of normal distribution curve to solve community problems	**C2**		
			• Conceptualize the methods of generalization of result of sample over population	**C3**		
			• Explain concept standard error, confidence interval, coefficient of variation and degree of freedom with interpretation.	**C2**		
L-32	Physiological response to infection	**Medicine**	• Recall infectious agents including prions, viruses, prokaryotes and eukaryotes. **C1**	**C1**	**LGIS**	**MCQs SEQs**
			• Recognize the meaning of normal flora. **C1**	**C1**		
			• Describe host pathogen interactions. **C2**	**C2**		
			• Explain pathogenesis of infectious diseases. **C2**	**C2**		
			• Recognize investigations required for diagnosis of infections. **C1**	**C1**		

			• Recall epidemiology of infection. **C1**	**C1**		
			• Know modes of transmission of infections. **C1**	**C1**		
L-33	Metabolic response to injury	**Surgery**	• Classical concepts of homeostasis.	**C2**	**LGIS**	**MCQs SEQs VIVA**
			• Mediators of metabolic response to injury	**C2**		
			• Physiological and biochemical changes that occur during injury.	**C2**		
			• Avoidable factors that enhance metabolic response to injury	**C2**		
L-34	Dose response curve -I	**Pharmacology**	• Define Dose response curve **C1**	**C1**	**LGIS**	**MCQs SEQs VIVA**
			• Discuss different types of dose response curve **C2**	**C2**		
			• Describe the information that can be obtained from a Graded Dose Response Curve with its clinical significance **C2**	**C2**		
L-35	Dose response curve-II	**Pharmacology**	• Explain Quantal Dose Response Curve **C2**	**C2**	**LGIS**	**MCQs SEQs VIVA**
			• Describe the information that can be obtained from a Quantal Dose Response Curve **C2**	**C2**		
			• Describe differences between Graded and Quantal Dose Response Curve **C2**	**C2**		
L-36	Introduction to personal identity	**Forensic Medicine**	• Describe Importance of personal identity. **C2**	**C2**	**LGIS**	**MCQs SEQs VIVA**
			• Describe the Parameters of personal identity with special emphasis on the following • Teeth, Age, Sex, Race and communal characters, Complexion, Features, Hairs, Stature, Deformities, Tattoo marks, Scars, Occupational, stigmata, Anthropometry **C2**	**C2**		
S-10	Control of normal cell Proliferation and Tissue Growth	**Pathology**	• Explain tissue proliferative activity of Stem cell **C2**	**C2**	**SGD**	**MCQs SEQs VIVA**
			• Explain signaling Mechanism in Cell Growth **C2**	**C2**		
			• Describe cell Cycle and the Regulation of cell Replication **C2**	**C2**		
P-7	Half life and Bioavailabillity	**Pharmacology**	• Discuss the clinical pharmacology and application of these pharmacokinetic parameters in real life settings **C2**	**C2**	**Practical**	**OSPE**
P-8	Identification of male and female skull	**Forensic Medicine**	• Describe the distinguishing features of male and female skull **C2**	**C2**	**Practical**	**OSPE**
			• Knowledge of estimation of stature, Race, Age and anatomical details of skull with special reference of MLC/Autopsy **C3**	**C3**		
			• Distinguish male and female skull.	**C3**		
			• Relate anatomical details of skull with reference to personal identity.	**C2**		
			• The student keen enough to utilize the basic anatomical details of skull for its Medicolegal utilization	**C3**		
P-9	Diagnosis of Acute inflammation	**Pathology**	• Identify acute inflammatory condition on the basis of gross and microscopic findings.**P3**	**P3**	**Practical**	**OSPE**
			• Value the role of basic investigations in clinical management **A3**	**A3**		

4th Week						
Code no	**Topic**	**Discipline**	**At the end of the lecture student should be able to**	**C/P/A**	**Teaching strategies**	**Assessment tools**
S-11	Dose response curve (clinical applications)	**Pharmacology**	• Discuss the clinical application of different types of dose response curves **C2**	**C2**	**SGD**	**MCQs SEQs VIVA**
L-37	Tolerance and tachyphylaxis	**Pharmacology**	• Define Tolerance & Tachyphylaxis with clinical examples **C2**	**C2**	**LGIS**	**MCQs SEQs VIVA**
			• Differentiate between Tolerance and Tachyphylaxis **C2**	**C2**		
			• Discuss different types and mechanism of drug tolerance **C2**	**C2**		
			• Define drug dependence **C1**	**C1**		
			• Discuss the stages of drug dependence **C2**	**C2**		
L-38	Factors affecting drug actions I	**Pharmacology**	• Discuss different factors affecting drug dose and action **C2** • Physiological • Pathological • Psychological • Genetic • Drug related (drug interactions) • Environmental	**C2**	**LGIS**	**MCQs SEQs VIVA**
L-39	Factors affecting drug actions II	**Pharmacology**	• Explain Synergism, Summation and Potentiation , Accumulation **C2**	**C2**	**LGIS**	**MCQs SEQs VIVA**
S-12	Mechanism of Tissue Regeneration	**Pathology**	• Describe mechanism of tissue regeneration	**C2**	**SGD**	**MCQs SEQs VIVA**
			• Define: Collagen, Elastin, Fibrillin,cell adhesion Proteins, Glycosaminoglycans, Proteoglycans **C1**	**C1**		
			• Demonstrate collaborative team work and problem solving aptitude **A3**	**A3**		
L-40	Identification in mass disasters	**Forensic Medicine**	• Define mass disaster **C1**	**C1**	**LGIS**	**MCQs SEQs VIVA**
			• Mention the objective of Forensic investigations **C2**	**C2**		
			• Describe the importance of fragmentary remains **C2**	**C2**		
			• Describe role of photography in mass disasters **C2**	**C2**		
L-41	Common Medical Issues-I	**Medicine**	• Describe patho-physiology of pain. **C2**	**C2**	**LGIS**	**MCQs SEQs**
			• Describe evaluation of patient with pain. **C2**	**C2**		
L-42	Wound healing and repair	**Surgery**	• Normal healing and how it can be adversely affected.	**C2**	**LGIS**	**MCQs SEQs**
			• Management of wounds of different types.	**C3**		

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			• Differentiation between acute and chronic wounds	**C3**		
C-3	Healing by secondary intention	**Pathology**	• Differentiate between repair and regeneration **C4**	**C4**	**CBL**	**PBQs**
			• Describe Mechanism of Angiogenesis **C2**	**C2**		
			• Wound healing by first and second intention			
			• Describe factors that influence the inflammatory reparative response. **C2**	**C2**		
			• Describe wound remodeling, formation of granulation tissue and complications of wound healing. **C2**	**C2**		
			• Apply his/her knowledge to identify the mechanism of healing in different circumstances	**A2**		
			• Demonstrate critical thinking attitude needed for application of basic knowledge into clinical situations.**A3**	**A3**		
L-43	Adverse drug reactions	**Pharmacology**	• Define adverse drug reaction(ADR) **C1**	**C1**	**LGIS**	**MCQs SEQs VIVA**
			• Classify ADRs based on type and severity **C1**	**C1**		
			• Describe the characteristic of each type of ADR **C2**	**C2**		
			• Identify predisposing risk factors and approaches to ADR prevention **C2**	**C2**		
			• Illustrate ways of ADR detection during pre & post marketing evaluation of drugs **C2**	**C2**		
L-44	Hypothesis testing	**Research**	• Elaborate the concept of hypothesis testing	**C2**	**LGIS**	**MCQs SEQs VIVA**
			• Enlist the steps of hypothesis testing	**C1**		
			• Explain role of statistical test of significance in hypothesis testing	**C2**		
			• Differentiate between parametric , non-parametric	**C2**		
			• Interpret p-value and Confidence Interval in published research result	**C3**		
			• Describe concept of generalization of results to the population	**C2**		
			• Illustrate source of type I and type II errors	**C2**		
L-45	Common medical issues-II	**Medicine**	• Evaluate cause of chest discomfort and describe approach to a patient with fever.	**C3**	**LGIS**	**MCQs SEQs VIVA**
			• Differentiate between faintness, syncope, dizziness and vertigo.	**C4**		
			• Describe approach to a patient with hypertension.	**C2**		
			• Describe approach to a patient with lymphadenopathy and splenomegaly	**C2**		
L-46	Pharmacovigilance	**Biomedical Ethics**	• Conceptualize the Pharmacovigilance	**C2**	**LGIS**	**MCQs SEQs VIVA**
			• Define Pharmacovigilance (WHO,DRAP) guidelines on the management of high alert medication	**C2**		
			• Elaborate adverse events reporting guidelines for healthcare professionals. **C2**	**C2**		

			• Enlist the various tools available to minimize the medical errors **C1**	**C1**		
			• Elaborate the disclosure policy	**C2**		
			• Role of Pharmaceutical industry in research enterprise • and how the "conflict of interest" affects research. (some overlap with Pharma-physician issues in • clinical ethics)	**C3**		
SL-2	Therapeutic drug monitoring	**Pharmacology**	• Define therapeutic drug monitoring **C1**	**C1**	**LGIS**	**MCQs SEQs VIVA**
			• Identify the need/significance of therapeutic drug monitoring **C1**	**C1**		
			• Discuss the characteristics and process of therapeutic drug monitoring **C2**	**C2**		
			• Enumerate the factors affecting therapeutic drug monitoring **C1**	**C1**		
C-4	Pharmacogenetics	**Pharmacology**	• Describe the importance of Pharmacogenetics in this specific case **C2**	**C2**	**CBL**	**PBQs**
L-47	Test of significance	**Research**	• Explain application of sampling distribution of means in calculating SE and 95% Cl for sample mean	**A2**	**LGIS**	**MCQs SEQs VIVA**
			• Compute SE of difference between two sample means	**C3**		
			• Apply student t-test for computing difference between 2 means and interpret the results	**A3**		
			• Elaborate types of t-test	**C3**		
			• Differentiate between one sample, independent and paired t test	**C3**		
L-48	Problem oriented history taking	**Family medicine**	• Comprehend the concept of doctor patient relationship. • Llearn the important components of history taking. • Iinterpret patients history findings to formulate a diagnosis		**LGIS**	**MCQs SEQs VIVA**
P-10	Biostatistics	**Pharmacology**	• Define mean, median, mode& standard Deviation C1	**C1**	**Practical**	**OSPE**
			• Interpret the data.	**C3**		
P-11	Dactylography	**Forensic Medicine**	• Describe the pattern of fingerprints and different methods for recording of fingerprints.**C2**	**C2**	**Practical**	**OSPE**
			• Define the forensic importance and application of DNA finger printing **C1**	**C1**		
			• Identify the pattern of a fingerprint.	**C2**		
			• Record a finger print.	**P1**		
P-12	Chronic and granulomatous inflammation	**Pathology**	• Identify the microscopic features and gross • appearance of Chronic and Granulomatous Inflammation	**P1**	**Practical**	**OSPE**
			• Value the role of basic investigations in clinical management **A3**	**A3**		

SDL Curriculum
(Self Directed Learning)

Date: 18th February, 2023 by DME, New Teaching Block

Week-1		
Pharmacology		
Topic	Learning Objectives	References
Drug development and new therapeutic approaches	• Define drug • Identify sources of drug • Discuss the phases of drug development • Outline the new therapeutic approaches	1. Basic and Clinical Pharmacology by Bertram Z. Katzung 15th Edition Chapter 1, Page 2-6, 15-24 2. Goodman and Gillmans The Pharmacological basics of Therapeutics, 13th Edition, Chapter 1, Pg 1-8 **3.** Alamgir, A.N.M. (2017). Drugs: Their Natural, Synthetic, and Biosynthetic Sources. In: Therapeutic Use of Medicinal Plants and Their Extracts: Volume 1. Progress in Drug Research, vol 73. Springer, Cham. https://doi.org/10.1007/978-3-319-63862-1_4
Pathology		
The genome and cellular house keeping	• Describe the components and regulators of gene function • Describe the functions of coding and non-coding genome • Describe the components of cell and regulation of cell function	Robbins & Cotran Pathologic Basis OF Disease 10th Edition Chapter 1 Pg 1--15
Forensic Medicine		
Importance of Medical consent	• Describe various types of medical evidences and consent • Describe principles of a medical witness	Parikh"text book of medical jurisprudence forensic medicine and toxicology Edition 9

Week-2		
Pharmacology		
Topic	Learning Objectives	References
Pharmacokinetic interactions & Their mechanisms	• Define drug interactions and its types • Classify drug interactions at different pharmacokinetic processes with examples absorption, distribution, metabolism and excretion • Discuss clinical implications of these interactions	• Important Drug Interactions & Their Mechanisms, Chapter 67, Page No:1156,1173, Basic & Clinical Pharmacology, Katzung • DuBuske, L.M., 2005. The role of P-glycoprotein and organic anion-transporting polypeptides in drug interactions. *Drug safety*, *28*, pp.789-801
Pathology		
Cell Growth	• Describe the cell signaling pathways • Describe the cell cycle and its regulators • Describe the role of growth factors and their receptors in cell growth • Describe the role of extracellular matrix in cell growth • Describe the role of stem cells in replenishing cellular populations	Robbins & COTRAN Pathologic Basis OF Disease 10th Edition Chapter 1 Pg 15--29
Forensic Medicine		
Professional Medical negligence	• Introduction to Medical Ethics • Define and describe the medical negligence with examples • Define and describe contributory negligence and precautions against medical negligence	Parikh"text book of medical jurisprudence forensic medicine and toxicology Edition 9

Week-3		
Pharmacology		
Topic	Learning Objectives	References
Principles of Prescription Order Writing and Patient Compliance	• Describe different steps of writing a rational prescription • Identify different components of prescription • Enlist and discuss different abbreviations and terms used in prescriptions and chart orders • Recognize main prescription errors	• Rational Prescribing & Prescription Writing, Chapter 66, Page Number:1146-1150 Basic & Clinical Pharmacology, Katzung • Ozavci, G., Bucknall, T., Woodward-Kron, R., Hughes, C., Jorm, C., Joseph, K. and Manias, E., 2021. A systematic review of older patients' experiences and perceptions of communication about managing medication across transitions of care. Research in Social and Administrative Pharmacy, 17(2), pp.273-291.
Pathology		
Morphological Patterns and complications of Acute inflammation	• Identify Morphologic Patterns of Acute inflammation • Describe the termination events of acute inflammation • Describe complications of Acute inflammation • Demonstrate responsibility for self-learning	Robbins & Cotran Pathologic Basis OF Disease 10th Edition Chapter 3 Pg 93--96
Forensic Medicine		
Personal identity	• Describe Importance of personal identity. • Describe the Parameters of personal identity with special emphasis on the following Teeth, Age, Sex, Race and communal characters, Complexion, Features, Hairs, Stature, Deformities, Tattoo marks, Scars, Occupational, stigmata, Anthropometry,	Parikh"text book of medical jurisprudence forensic medicine and toxicology Edition 9

Week-4		
Pharmacology		
Topic	**Learning Objectives**	**References**
Therapeutic drug monitoring	• Define therapeutic drug monitoring • Identify the need/significance of therapeutic drug monitoring • Discuss the characteristics and process of therapeutic drug monitoring • Enumerate the factors affecting therapeutic drug monitoring	1. Ali, A.S., Abdel-Rhaman, M.S., Rahman, A.F., & Osman, O.H. (2013). Basic Principles of Therapeutic Drug Monitoring. 2. Goodman and Gillmans The Pharmacological basics of Therapeutics, 13th Edition, Chapter 2, Pg 29
Pathology		
Phagocytosis and Clearance of the Offending Agent	• Describe the role of cells involved in Phagocytosis and Clearance of the Offending Agent • Describe the process of phagocytosis and opsonization • Describe the mechanism of action of NETs	Robbins & Cotran Pathologic Basis OF Disease 10th Edition Chapter 3 Pg 80--85
Forensic Medicine		
Identification in mass disasters	• Define mass disaster • Mention the objective of Forensic investigations • Describe the importance of fragmentary remains • Role of photography in mass disasters	Parikh"text book of medical jurisprudence forensic medicine and toxicology Edition 9

Integrated Modular Curriculum

Foundation Module I

3rd Year MBBS

Time Table 2023

Date: 18th February, 2023 by DME, New Teaching Block

Duration Of Module: O4 Weeks

Coordinator:

Dr. Zunera Hakim

Co-Coordinators:

Dr. Zoefishan, Dr Omaima

Reviewed by: Module committee

Members Of Module Committee

PROF.DR.MUHAMMAD UMAR	**Chairman**	**Vice Chancellor RMU**
Prof. Dr. Ayesha Yousaf	Dean of Basic Sciences/Convener	Anatomy Department
Prof. Dr Idrees Anwar	Dean & Member Curriculum Committee	Surgery Department
Dr Asma Khan	Incharge 3rd year Modular Curriculum	Pharmacology Department
Dr Omaima Asif	Overall Modular Coordinator	Pharmacology Department
Dr Zunera Hakim	Focal Person	Pharmacology Department
Dr Mudassira Zahid	Focal Person	Pathology Department
Dr Shahida	Focal Person	Forensic Medicine Department
Dr Saima Ambreen	Focal Person	Medicine Department
Dr Huma Sabir	Focal Person	Surgery Department

Approved by: Curriculum Committee

Documented By
Dr Omaima Asif

Prepared By
DR. Zunera Hakim
AP Pharmacology Department

Date: 18th February, 2023 by DME, New Teaching Block

Time Table 3rd Year MBBS -FOUNDATION MODULE I -2023 (1st Week)

DATE / DAY	8:00 AM 11:00 AM	11:00am – 12:00pm	12:00 PM – 02:00 PM				
	Clinical Clerkship						
	08:00 AM – 11:00 AM	**11:00 AM – 12:00 PM**	**12:00 PM – 02:00 PM**				
Wednesday 08-02-2023	**Batch : A Medicine** **Batch : B Surgery** **Batch : C Sub-Specialty** **(Refer to annexure 2)**	**Pharmacology * L-1** Orientation Lecture **Even** Dr.Asma Khan / **Odd** Dr Omaima	**Batch** / **Discipline** / **Topic of Practical** C – Pharmacology P-1 – Pharmacological Calculations-I – Dr.Haseeba – Pharmacology Lab A – Forensic Medicine P-2 – Documentary record (ID Card) – Dr. Raheel Baig – Forensic Lab B – Pathology P-3 – Cellular adaptation to stress – Dr Fatima Rizvi – Pathology Lab, NTB			
Thursday 09-02-2023		**Surgery * L-2** Surgical Ethics **Even** Dr Yasmeen / **Odd** Dr Ruqia Mushtaq	**Pathology *L-3** **12:00 PM – 01:00 PM** Reversible and irreversible cell injury **Even** Prof. Mobina / **Odd** Prof. Wafa Omer			**Forensic Medicine *L-4** **01:00 PM – 02:00 PM** Introduction to Forensic Medicine **Even** Dr Gulzaib / **Odd** Dr Raheel	
Friday 10-02-2023	**08:00am - 08:45am** **Quran * L-5** Iemaniyat-I **Even** Mufti Wahid / **Odd** Mufti Wahid	**08:45am – 09:30am** **Medicine *L-6** Medicine in practice **Even** Dr. Javeria / **Odd** Dr Tahir	**09:30am – 10:15am** **Pathology **S-1** Cellular adaptations **Even** Dr Rabbiya Khalid, Dr Tayyaba Ali / **Odd** Dr Sara Rafi, Dr Assiya Naizi	**10:15am - 11:00am** **Pharmacology ** S-2** Routes of drug administration and dosage forms **Even** Dr. Rubina, Dr. Zaheer / **Odd** Dr Zoefishan, Dr . Arsheen	**11:00am – 12:00pm** **Pharmacology **S-3** Routes of drug administration and dosage forms **Even** Dr. Rubina, Dr. Zaheer / **Odd** Dr Zoefishan, Dr . Arsheen		
Saturday 11-02-2023	**08:00am - 08:45am** **Surgery *L-7** Patient safety and quality improvement **Even** Dr.Rahat / **Odd** Dr Nazan	**08:45am – 09:30am** **Pharmacology *L-8** Absorption of drugs (processes of drug absorption) **Even** Dr Sobia Javed / **Odd** Dr Asma Khan	**09:30am – 10:30am** **Forensic Medicine *L-9** Importance of Medical consent **Even** Dr. Gulzaib / **Odd** Dr. Raheel	**10:130m - 11:00am** BREAK 	**11:00am – 12:00pm** **Pharmacology **S-4** Absorption of drugs (factors affecting absorption of drugs) **Even** Dr. Rubina, Dr. Zaheer / **Odd** Dr Zoefishan, Dr . Arsheen	**12:00:pm – 01:00pm** **Medicine *L-10** Medical ethics introduction **Even** Dr. Javeria / **Odd** Dr Tahir	**01:00pm – 02:pm** **Pathology **S5** Cellular aging and intra cellular accumulations **Even** Dr Rabbiya, Dr Huma / **Odd** Dr Sara, Dr Mudassira

*The batches whose practical is missed due to commencement of module mid week will be adjusted in 2 week along with the scheduled practical

Date: 18th February, 2023 by DME, New Teaching Block

TIME TABLE 3rd YEAR MBBS -FOUNDATION MODULE I -2023 (2nd Week)

DATE / DAY	8:00 AM 11:00 AM	11:00am – 12:00pm	12:00 PM – 02:00 PM				
Monday 13-02-2023	**Clinical Clerkship**	**Pathology ***C-1**	**Batch**	**Discipline**	**Topic of Practical**		
	Batch : A Medicine Batch : B Surgery Batch : C Sub-Specialty(Refer to annexure 2)	Pathological Calcification	A	Pharmacology P-4	Pharmacological Calculations-II	Dr. Arsheen	Pharmacology Lab
		Even / **Odd**	B	Forensic Medicine P-5	Identification of male and female skull	Dr.Gulzaib	Forensic Lab
		Dr Fatima, Dr Nida / Dr Iqbal, Dr Saeed	C	Pathology P-6	Fatty change, Calcification, Pigmentation	Dr. Syeda Aisha	Pathology Lab, NTB
Tuesday 14-02-2023		**Pharmacology * L-11**	**Batch**	**Discipline**	**Topic of Practical**		
		Distribution of drugs-I	B	Pharmacology P-4	Pharmacological Calculations -II	Dr. Arsheen	Pharmacology Lab
		Even / **Odd**	C	Forensic Medicine P-5	Identification of male and female skull	Dr. Gulzaib	Forensic Lab
		Dr Sobia Javed / Dr Haseeba	A	Pathology P-6	Fatty change, Calcification, Pigmentation	Dr. Syeda Aisha	Pathology Lab, NTB
Wednesday 15-02-2023		**Pharmacology * L-12**	**Batch**	**Discipline**	**Topic of Practical**		
		Distribution of drugs-II (factors affecting distribution)	C	Pharmacology P-4	Pharmacological Calculations -II	Dr. Arhseen	Pharmacology Lab
		Even / **Odd**	A	Forensic Medicine P-5	Identification of male and female skull	Dr.Gluzaib	Forensic Lab
		Dr Sobia Javed / Dr Haseeba	B	Pathology P-6	Fatty change, Calcification, Pigmentation	Dr. Syeda Aisha	Pathology Lab, NTB
Thursday 16-02-2023		**Pharmacology *L-13**	**Pharmacology *L-14**			**Family Medicine *L-15**	
		Biotransformation -I	**12:00 PM – 01:00 PM**			**01:00 PM – 02:00 PM**	
			Biotransformation -II			Ethics in primary care	
		Even / **Odd**	**Even**		**Odd**	**Even**	**Odd**
		Dr Zunera / Dr Attiya	Dr Zunera		Dr Attiya	Dr Sadia	
Friday 17-02-2023	**08:00am - 08:45am**	**08:45am – 09:30am**	**09:30am – 10:15am**	**10:15am - 11:00am**		**11:00am – 12:00pm**	
	Quran *L-16	**Surgery (LGIS)* L-17**	**Pharmacology * *S-6**	**Forensic Medicine * L-18**		**Pathology *L-19**	
	Iemaniyat -II	Surgical Infection	Role of enzyme inducers and inhibitorsin drug metabolism	Professional Medical negligence PM& DC rules and regulation governing medical procedures		Acute inflammation vascular events	
	Even / **Odd**	**Even** / **Odd**	**Even** / **Odd**	**Even** / **Odd**		**Even** / **Odd**	
	Mufti Wahid	Dr Muhammad Qasim / Dr Irfan Malik	Dr. Rubina, Dr. Zaheer / Dr Zoefishan, Dr .Omaima	Dr Naila / Dr Shahida		Prof. Mobina / Prof. Wafa Omer	
Saturday 18-02-2023	**08:00am - 08:45am**	**08:45am – 09:30am**	**09:30am – 10:30am**	**10:30am - 11:00am**	**11:00am – 12:00pm**	**12:00:pm – 01:00pm**	**01:00pm – 02:00pm**
	Forensic Medicine * L-20	**Surgery * L-21**	**Pharmacology * L-22**	**BREAK** 	**Pharmacology *L-23**	**Pathology * L-24**	**Pathology **S-7**
	Confidentiality and legal medical practice	Sterilization and disinfection	Bioavailability of drugs		Half life	Cellular events of acute inflammation	Chemical mediators of inflammation
	Even / **Odd**	**Even** / **Odd**	**Even** / **Odd**		**Even** / **Odd**	**Even** / **Odd**	**Even** / **Odd**
	Dr Naila / Dr Shahida	Dr Aurangzeb / Dr Muhammad Arif	Dr. Zunera Hakim / Dr Attiya Munir		Dr Attiya Munir / Dr Asma Khan	Prof. Mobina Prof. Wafa	Dr Tayyaba, Dr Abid / Dr Ayesha, Dr. Asiya

Date: 18th February, 2023 by DME, New Teaching Block

TIME TABLE 3rd YEAR MBBS -FOUNDATION MODULE I -2023 (3rd Week)

<table>
<tr><th>DATE / DAY</th><th colspan="3">8:00 AM 11:00 AM</th><th colspan="3">11:00am – 12:00pm</th><th colspan="5">12:00 PM – 02:00 PM</th></tr>
<tr><td rowspan="4">Monday
20-02-2023</td><td colspan="3">Clinical Clerkship</td><td colspan="3">Pathology ****SL-1</td><td>Batch</td><td>Discipline</td><td colspan="2">Topic of Practical</td><td></td></tr>
<tr><td rowspan="3" colspan="3">Batch : A Medicine
Batch : B Surgery
Batch : C Sub-Specialty
(Refer to annexure 2)</td><td colspan="3">Morphological Patterns and complications of acute inflammation</td><td>A</td><td>Pharmacology P-7</td><td colspan="2">Half life
Bioavailability</td><td>Dr Rubina
Dr Zaheer</td><td>Pharmacology Lab</td></tr>
<tr><td>Even</td><td colspan="2">Odd</td><td>B</td><td>Forensic Medicine P-8</td><td colspan="2">Identification of male and female pelvis</td><td>Dr Naila</td><td>Forensic Lab</td></tr>
<tr><td>Dr Saeed</td><td colspan="2">Dr Iqbal</td><td>C</td><td>Pathology P-9</td><td colspan="2">Diagnosis of acute inflammation</td><td>Dr. Fariha Sardar</td><td>Pathology Lab, NTB</td></tr>
<tr><td rowspan="4">Tuesday
21-02-2023</td><td colspan="3"></td><td colspan="3">Pharmacology *L-25</td><td>Batch</td><td>Discipline</td><td colspan="2">Topic of Practical</td><td></td></tr>
<tr><td colspan="3"></td><td colspan="3">Excretion of drugs</td><td>B</td><td>Pharmacology P-7</td><td colspan="2">Half life
Bioavailability</td><td>Dr Rubina
Dr Zaheer</td><td>Pharmacology Lab</td></tr>
<tr><td colspan="3"></td><td>Even</td><td colspan="2">Odd</td><td>C</td><td>Forensic Medicine P-8</td><td colspan="2">Identification of male and female pelvis</td><td>Dr Naila</td><td>Forensic Lab</td></tr>
<tr><td colspan="3"></td><td>Dr Asma</td><td colspan="2">Dr Haseeba</td><td>A</td><td>Pathology P-9</td><td colspan="2">Diagnosis of acute inflammation</td><td>Dr. Fariha Sardar</td><td>Pathology Lab, NTB</td></tr>
<tr><td rowspan="4">Wednesday
22-02-2023</td><td colspan="3"></td><td colspan="3">Pathology **S-8</td><td>Batch</td><td>Discipline</td><td colspan="2">Topic of Practical</td><td></td></tr>
<tr><td colspan="3"></td><td colspan="3">Chronic Inflammation</td><td>C</td><td>Pharmacology P-7</td><td colspan="2">Half life
Bioavailability</td><td>Dr Rubina
Dr Zaheer</td><td>Pharmacology Lab</td></tr>
<tr><td colspan="3"></td><td>Even</td><td colspan="2">Odd</td><td>A</td><td>Forensic Medicine P-8</td><td colspan="2">Identification of male and female pelvis</td><td>Dr Naila</td><td>Forensic Lab</td></tr>
<tr><td colspan="3"></td><td>Dr Mudassira
Dr Huma</td><td colspan="2">Dr Fareeha
Dr Unaiza</td><td>B</td><td>Pathology P-9</td><td colspan="2">Diagnosis of acute inflammation</td><td>Dr. Fariha Sardar</td><td>Pathology Lab, NTB</td></tr>
<tr><td rowspan="4">Thursday
23-02-2023</td><td colspan="3"></td><td colspan="3">Pharmacology * L-26</td><td colspan="3">Pathology ***C-2</td><td colspan="2">Forensic Medicine * L-27</td></tr>
<tr><td colspan="3"></td><td colspan="3">Mechanism of drug action-I</td><td colspan="3">12:00 PM – 01:00 PM</td><td colspan="2">01:00 PM – 02:00 PM</td></tr>
<tr><td colspan="3"></td><td colspan="3"></td><td colspan="3">Granulomatous inflammation</td><td colspan="2">Courts and legal practices (Pakistan)</td></tr>
<tr><td colspan="3"></td><td>Even</td><td colspan="2">Odd</td><td colspan="2">Even</td><td colspan="2">Odd</td><td>Even</td><td>Odd</td></tr>
<tr><td colspan="3"></td><td>Dr. Zunera Hakim</td><td colspan="2">Dr Attiya Munir</td><td colspan="2">Dr Iqbal
Dr. Fatima</td><td colspan="2">Dr. Nida
Dr. Saeed</td><td>Dr Gulzaib</td><td>Dr Naila</td></tr>
<tr><td rowspan="4">Friday
24-02-2023</td><td colspan="2">08:00am - 08:45am</td><td colspan="2">08:45am – 09:30am</td><td colspan="2">09:30am – 10:15am</td><td colspan="2">10:15am - 11:00am</td><td colspan="2">11:00am – 12:00pm</td><td colspan="2" rowspan="4"></td></tr>
<tr><td colspan="2">Medicine * L-28</td><td colspan="2">Quran *L-29</td><td colspan="2">Pathology **S-9</td><td colspan="2">Pharmacology * L-30</td><td colspan="2">Research *L-31</td></tr>
<tr><td colspan="2">Acute and chronic inflammation; Medical related perspectives</td><td colspan="2">Iemaniyat -III</td><td colspan="2">Consequences of inflammation</td><td colspan="2">Mechanism of drug action-II</td><td colspan="2">Normal distribution curve</td></tr>
<tr><td>Even</td><td>Odd</td><td>Even</td><td>Odd</td><td>Even</td><td>Odd</td><td>Even</td><td>Odd</td><td>Even</td><td>Odd</td></tr>
<tr><td>Dr Seemab</td><td>Dr.Iqra</td><td colspan="2">Mufti Wahid</td><td>Dr Mudassira
Dr Huma</td><td>Dr Fareeha
Dr Unaiza</td><td>Dr. Zunera Hakim</td><td>Dr Attiya Munir</td><td>Dr Imrana</td><td>Dr Abdul Qadoos</td></tr>
<tr><td rowspan="4">Saturday
25-02-2023</td><td colspan="2">08:00am - 08:45am</td><td colspan="2">08:45am – 09:30am</td><td colspan="2">09:30am – 10:30am</td><td colspan="2">10:30am - 11:00am</td><td colspan="2">11:00am – 12:00pm</td><td>12:00:pm – 01:00pm</td><td>01:00pm – 02:pm</td></tr>
<tr><td colspan="2">Medicine * L-32</td><td colspan="2">Surgery * L-33</td><td colspan="2">Pharmacology *L-34</td><td rowspan="3">BREAK
  </td><td colspan="2">Pharmacology *L-35</td><td>Forensic Medicine * L-36</td><td>Pathology **S 10</td></tr>
<tr><td colspan="2">Physiological response to infection</td><td colspan="2">Metabolic response to injury</td><td colspan="2">Dose response curve-I
(Graded dose response curve)</td><td colspan="2">Dose response curve-II
(Quantal dose response curve)</td><td>Introduction to personal identity</td><td>Control of normal cell proliferation & tissue growth</td></tr>
<tr><td>Even</td><td>Odd</td><td>Even</td><td>Odd</td><td>Even</td><td>Odd</td><td>Even</td><td>Odd</td><td>Even</td><td>Odd</td><td>Even</td><td>Odd</td></tr>
<tr><td>Dr Seemab</td><td>Dr.Iqra</td><td>Dr Huma Sabir</td><td>Dr Muhammad Iqbal</td><td>Dr Sobia Javed</td><td>Dr Asma Khan</td><td>Dr Sobia Javed</td><td>Dr Asma Khan</td><td>Dr Gulzaib
Dr Naila</td><td></td><td>Dr Mudassira
Dr Huma</td><td>Dr Fareeha
Dr Unaiza</td></tr>
</table>

Date: 18th February, 2023 by DME, New Teaching Block

TIME TABLE 3rd YEAR MBBS -FOUNDATION MODULE I -2022 (4th Week)

DATE / DAY	8:00 AM 11:00 AM	11:00am – 12:00pm	12:00 PM – 02:00 PM				
Monday 27-02-2023	**Clinical Clerkship** **Batch : A Medicine** **Batch : B Surgery** **Batch : C Sub-Specialty** **(Refer to annexure 2)**	**Pharamcology **S-11** Dose response curve (clinical applications) **Even** / **Odd** Dr. Rubina, Dr. Zaheer / Dr Haseeba, Dr .Arsheen	**Batch** / **Discipline** / **Topic of Practical**				
			A	Pharmacology P-10	Biostatistics	Dr Uzma	Pharmacology Lab
			B	Forensic Medicine P-11	Dactylography	Dr Raheel Baig	Forensic Lab
			C	Pathology P-12	Diagnosis of chronic and granulomatous inflammation	Dr. Iqbal Haider	Pathology Lab, NTB
Tuesday 28-02-2023		**Pharmacology *L-37** Tolerance and tachyphylaxis **Even** / **Odd** Dr Zunera / Dr Attiya	**Batch** / **Discipline** / **Topic of Practical**				
			B	Pharmacology P-10	Biostatistics	DrUzma	Pharmacology Lab
			C	Forensic Medicine P-11	Dactylography	Dr Raheel Baig	Forensic Lab
			A	Pathology P-12	Diagnosis of chronic and granulomatous inflammation	Dr. Iqbal Haider	Pathology Lab, NTB
Wednesday 01-03-2023		**Pharmacology *L-38** Factors affecting drug action -I **Even** / **Odd** Dr Attiya / Dr Asma	**Batch** / **Discipline** / **Topic of Practical**				
			C	Pharmacology P-10	Biostatistics	Dr Uzma	Pharmacology Lab
			A	Forensic Medicine P-11	Dactylography	Dr Raheel Baig	Forensic Lab
			B	Pathology P-12	Diagnosis of chronic and granulomatous inflammation	Dr. Iqbal Haider	Pathology Lab, NTB
Thursday 02-03-2023		**Pharmacology *L-39** Factors affecting drug action -II **Even** / **Odd** Dr Attiya / Dr Asma	**Pathology **S 12** **12:00 PM – 01:00 PM** Mechanism of Tissue Regeneration **Even**: Dr Tayyaba, Dr Abid **Odd**: Dr Ayesha, Dr. Asiya			**Forensic Medicine *L-40** **01:00 PM – 02:00 PM** Identification in mass disaster **Even**: Dr Raheel **Odd**	
Friday 03-03-2023	**08:00am - 08:45am** **Medicine *L-41** Common Medical Issues-I **Even**: Dr Seemab / **Odd**: Dr.Iqra	**08:45am – 09:30am** **Surgery *L-42** Wound healing & repair **Even**: Dr Muhammad Zafar / **Odd**: Dr Gohar Rasheed	**09:30am – 10:15am** **Pathology ***C-3** Healing by Secondary intention **Even**: Dr Iqbal, Dr. Fatima / **Odd**: Dr. Nida, Dr. Saeed	**10:15am - 11:00am** **Pharmacology *L-43** ADR **Even**: Dr Zunera / **Odd**: Dr Sobia	**11:00am – 12:00pm** **Research *L-44** Hypothesis testing **Even**: Dr Imrana / **Odd**: Dr Abdul Qadoos		
Saturday 04-03-2023	**08:00am - 08:45am** **Medicine *L-45** Common Medical Issues-II **Even**: Dr Seemab / **Odd**: Dr.Iqra	**08:45am – 09:30am** **Ethics *L- 46** Pharmacovigilance **Even** / **Odd**: Prof Akram Randhawa	**09:30am – 10:30am** **Pharmacology****SL-2** Therapeutic drug monitoring **Even**: Dr Zunera / **Odd**: Dr Asma	**10:30am - 11:00am** **BREAK** 	**11:00am – 12:00pm** **Pharmacology ***C-4** Pharmcogenetics **Even**: Dr. Rubina, Dr. Zaheer / **Odd**: Dr Omaima, Dr .Arsheen	**12:00:pm – 01:00pm** **Research *L-47** Test of significance **Even**: Dr Imrana, Dr Abdul Qadoos / **Odd**	**01:00pm – 02:pm** **Family Medicine * L-48** Problem oriented history taking **Even**: Dr Sadia / **Odd**

Date: 18th February, 2023 by DME, New Teaching Block

Teaching Hours

Sr. No.	Disciplines	LGIS	SGD	CBL	SDL	Hours
1.	Pharmacology	17	05	01	04	27
2.	Pathology	03	07	03	04	17
3.	Forensic Medicine	07	0	0	04	11
4.	Surgery	06	0	0	0	06
5.	Medicine	06	0	0	0	06
6.	Family Medicine	02	0	0	0	02
7.	Research	03	0	0	0	03
8.	Ethics	01	0	0	0	01
9.	Quran	03	0	0	0	03
	Total hours	48	12	04	12	**76**

Practical & Clerkship Hours

Disciplines	Practical hours	Disciplines	Clerkship hours
Pharmacology	2x4 = 08 hrs	Surgery	2.5 x 14 = 35 hrs
Pathology	2x4 = 08 hrs	Medicine	2.5 x 14 = 35 hrs
Forensic Medicine	2x4 = 08 hrs	Sub Specialty	2.5 x 14 = 35 hrs

- LGIS (L) *
- SGD (S) **
- CBL (C) ***
- SDL (SL) ****

VENUES FOR ACADEMIC SESSIONS 3rd YEAR MBBS

- **LARGE GROUP INTERACTIVE SESSIONS (LGIS)**

  Odd roll numbers: Lecture Hall 01

  Even roll numbers: Lecture Hall 02

- **SMALL GROUP DISCUSSION (SGD) /CASE BASED LEARNING (CBL)**

  Lecture Hall 01
  Lecture Hall 02
  Lecture Hall 04
  Lecture Hall 05

  } In case of non availability of these venues due to 3rd /4th Year Prof CPC will be used for two batches

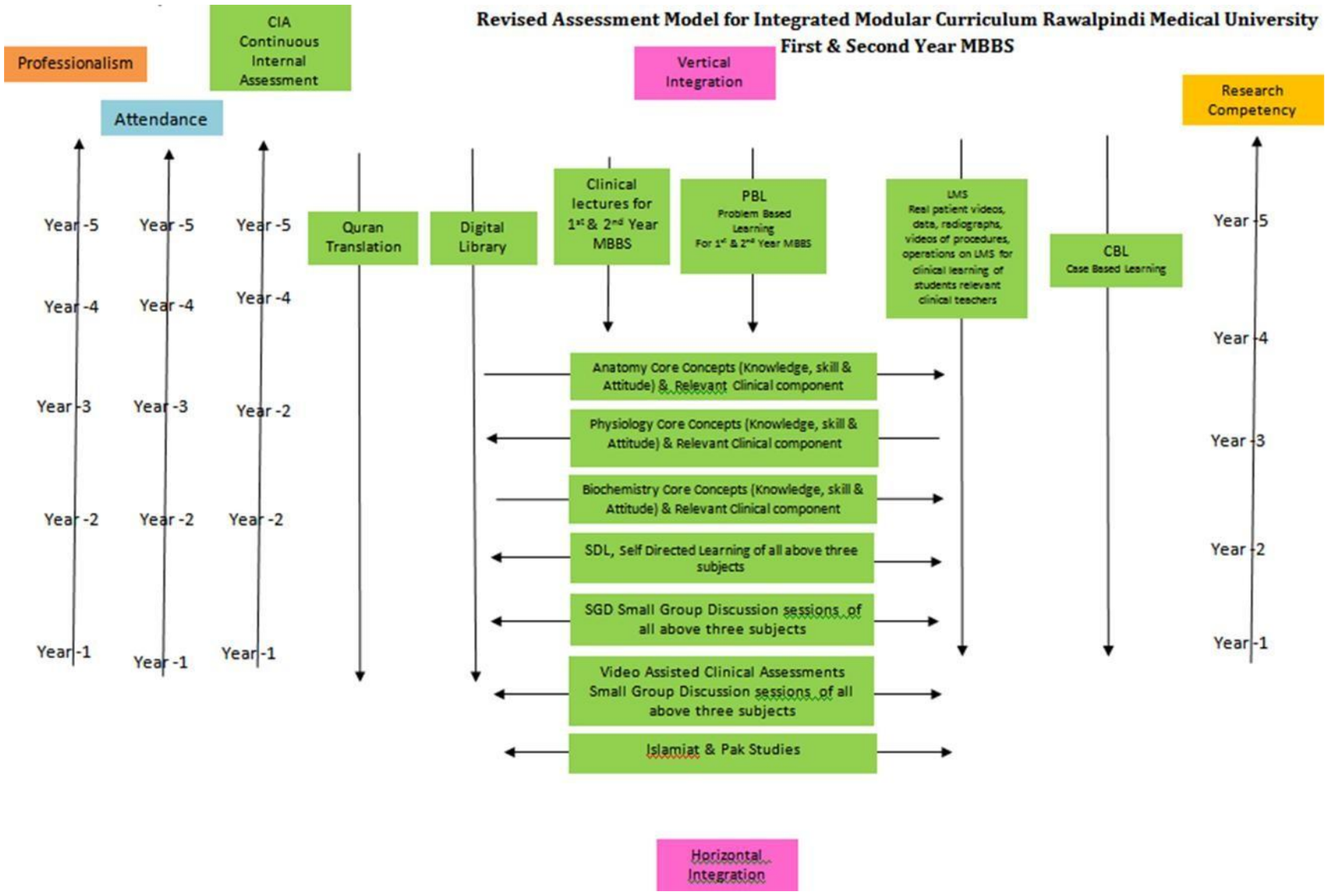
The batch distribution & venues for whole year are fixed with no change except for extra ordinary situations.

Rawalpindi Medical University Rawalpindi

Date: 18th February, 2023 by DME, New Teaching Block

Section IV- Assessment Policies

Contents



Gauge for Continuous Internal Assessment (CIA)

Red Zone	High Alert	Yellow Zone	Green Zone	Excellent	Extra Ordinary
0 - 25%	26 - *50%	51 - 60%	61 – 70%	71 – 80%	81 - 100%

*50% and above is Passing Marks.

Gauge for attendance percentage

Red Zone	High Alert	Yellow Zone-1	Yellow Zone-2	Green Zone	Excellent
0 - 25%	26 - 50%	51 - 60%	61 – 74%	*75 – 80%	81 - 100%

*75% is eligibility criteria for appearing in professional examination.

Date: 18th February, 2023 by DME, New Teaching Block

Assessment plan

University has followed the guidelines of Pakistan Medical and Dental Council for assessment. Assessment is conducted at the mid modular,modular and block levels.

Types of Assessment:

The assessment is formative and summative.

Formative Assessment

Formative assessment is taken at modular (2/3rd of the module is complete) level through MS Teams. Tool for this assessment is best choice questions and all subjects are given theshare according to their hour percentage.

Summative Assessment:

Summative assessment is taken at the mid modular (LMS Based),modular and block levels.

Modular Examinations

Theory Paper

There is a module examination at the end of first module of each block. The content of the whole teaching of the module are tested in this examination.
It consists of paper with objective type questions and structured essay questions. The distribution of the questions is based on the Table of Specifications of the module. (Annexure I attached)

Viva Voce:

Structured table viva voce is conducted including the practical content of the module.

Block Examination

On completion of a block which consists of two modules, there is a block examination which consists of one theory paper and a structured viva with OSPE.

Theory Paper

There is one written paper for each subject. The paper consists of objective type questions and structured essay questions. The distribution of the questions is based on the Table of Specifications of the module.

Block OSPE

This covers the practical content of whole block.

Table 4-Assessment Frequency & Time In Foundation Module I

Block	Module – 1		Type of Assessments	Total Assessments Time			No. of Assessments	
	Sr #	Foundation Module Components		Assessment Time	Summative Assessment Time	Formative Assessment Time		
Block-I	1	Mid Module Examinations LMS based (Pharmacology, Pathology, Forensic Medicine, Medicine, Surgery, Paeds)	Summative	30 Minutes (Every Thursday)	7 Hours Minutes	30 Minutes	1 Formative	5 Summative
	2	Topics of SDL Examination on MS Team	Formative	30 Minutes				
	3	End Module Examinations (SEQ & MCQs Based)	Summative	6 Hours				
	4	Pharmacology Structured and Clinically Oriented Viva	Summative	10 Minutes				
	5.	Forensic Medicine Structured and Clinically oriented Viva	Summative	10 Minutes				
	5	Pathology Structured & Clinically oriented Viva	Summative	10 Minutes				

Learning Resources

Subject	Resources
Community Medicine	**TEXT BOOKS** 1. Community Medicine by Parikh 25th edition. 2. Community Medicine by M Illyas 8th edition. 3. Basic Statistics for the Health Sciences by Jan W Kuzma 5th edition.
Pathology/Microbiology	**TEXT BOOKS** 1. Robbins & Cotran, Pathologic Basis of Disease, 10th edition. 2. Rapid Review Pathology, 5th edition by Edward F. Goljan MD. 3. http://library.med.utah.edu/WebPath/webpath.html
Pharmacology	**TEXT BOOKS** 1. Lippincot Illustrated Pharmacology 9th edition.
Forensic Medicine	**TEXT BOOKS** 1. Parikh Text Book of Medical Jurisprudence Forensic Medicine & Toxicology Edition 9

SECTION VI

Table of Specification (TOS) For Foundation Module Examination for 3rd Year MBBS Modules during running academic session:

Sr. #	Discipline	No. of MCQs (%)	No. of MCQs according to cognitive domain			No. of SEQs (%)		No. of SEQs according to cognitive domain			Viva voce	Total Marks
			C1	C2	C3	No. of items	Marks	C1	C2	C3		
1.	Pharmacology	20	3	13	4	4	20	1	3	1	10	50
2.	Forensic Medicine	10	2	5	3	2	10	0	2	0	5	25
3.	Pathology	15	3	10	2	2	10	0	2	0	15	50
4.	Bioethics	5	1	2	1	0	0	0	0	0	0	5
6.	Research	5	0	3	2	0	0	0	0	0	0	5
7.	Medicine	5	1	3	1	0	0	0	0	0	0	5
8.	Surgery	5	1	3	1	0	0	0	0	0	0	5
9.	Paeds	5	2	2	1	0	0	0	0	0	0	5
										Grand Total	150	

Date: 18th February, 2023 by DME, New Teaching Block

Annexure I

(Sample MCQ & SEQ papers with analysis)

Sample Of MCQs Paper

RAWALPINDI MEDICAL UNIVERSITY
DEPARTMENT OF PATHOLOGY
RMU & Allied Hospitals
SEND-UP EXAMINATION 2022
3rd Year MBBS

ROLL NO. _____

Date: -- -- --
Time: --:--

MCQs PAPER
BLOCK-I

Total Marks: 55
Time Allowed: 60min

1. A 29-year man comes to a resident surgeon for removal of plaster cast. The patient states that the plaster was applied due to fracture of his left femoral bone 8 weeks ago. After removal of the cast the resident notices that the diameter of the left calf has decreased in size as compared to the right one. What is the cause of this observation?
   A. Aplasia
   B. Atrophy
   C. Dystrophy
   D. Dysplasia
   E. Hypoplasia

   CORE C2 CELLULAR ADAPTATIONS

2. A 22-year college student developed marked right lower abdominal pain over the past day. On physical examination there is rebound tenderness on palpation at the right iliac fossa. Laparoscopic surgery was performed, and the appendix was found to be swollen, erythematous, and partly covered by a yellowish exudate. Which one of the following best describes the process?
   A. Acute inflammation
   B. Granuloma formation
   C. Chronic inflammation
   D. Tissue necrosis
   E. Fibrosis and repair

   VERTICAL INTEGRATION SURGERY C2 INFLAMMATION

3. A 34 years man presented with complains of productive cough, low grade fever and weight loss for last 6 months. After investigation he has been diagnosed as having pulmonary tuberculosis. What are the two main cell types involved in this inflammatory disease?
   A. Basophils and Macrophages
   B. Macrophages and Lymphocytes
   C. Eosinophils and neutrophils
   D. Neutrophils and lymphocytes
   E. Basophils and neutrophils

   CORE INFLAMMATION C2

4. A 35-year woman takes acetylsalicylic acid (aspirin) for arthritis. The aspirin therapy alleviates her pain mainly through reduction in the synthesis of which of the following mediators?
   A. Complement C1q
   B. Histamine
   C. Leukotriene E4
   D. Nitric oxide
   E. Prostaglandins

   HORIZONTAL INTEGRATION PHARMACOLOGY C1 INFLAMMATION

1/13

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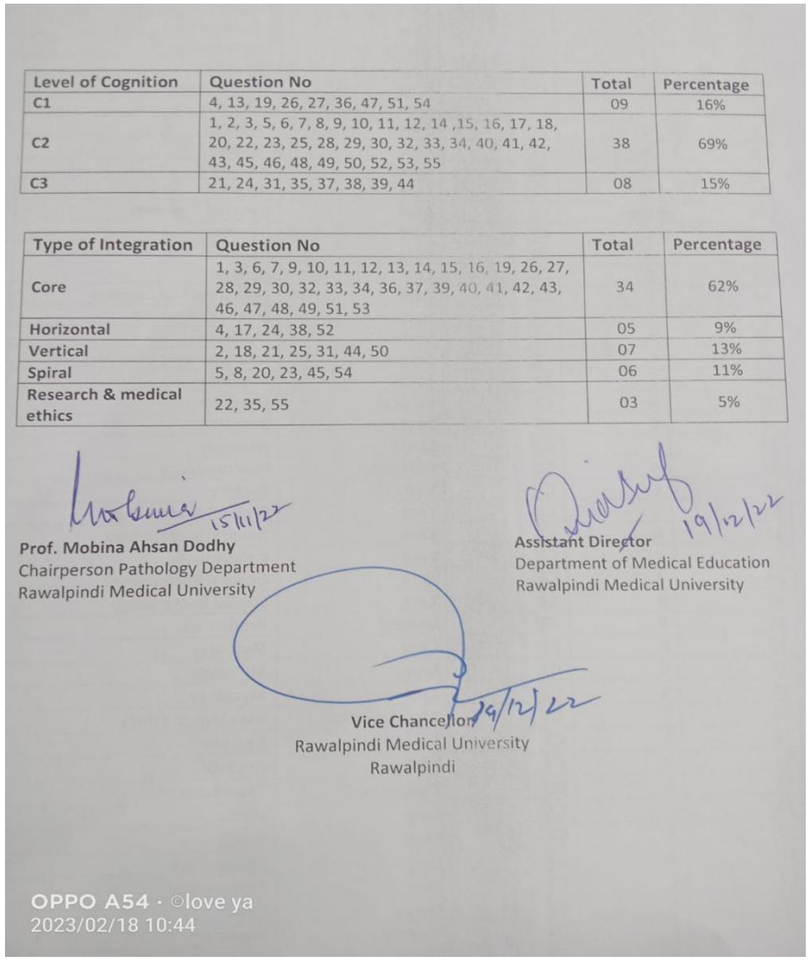
Date: 18th February, 2023 by DME, New Teaching Block

Detailed Analysis Of Sample Of MCQs Paper



Level of Cognition	Question No	Total	Percentage
C1	4, 13, 19, 26, 27, 36, 47, 51, 54	09	16%
C2	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 14 ,15, 16, 17, 18, 20, 22, 23, 25, 28, 29, 30, 32, 33, 34, 40, 41, 42, 43, 45, 46, 48, 49, 50, 52, 53, 55	38	69%
C3	21, 24, 31, 35, 37, 38, 39, 44	08	15%

Type of Integration	Question No	Total	Percentage
Core	1, 3, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 19, 26, 27, 28, 29, 30, 32, 33, 34, 36, 37, 39, 40, 41, 42, 43, 46, 47, 48, 49, 51, 53	34	62%
Horizontal	4, 17, 24, 38, 52	05	9%
Vertical	2, 18, 21, 25, 31, 44, 50	07	13%
Spiral	5, 8, 20, 23, 45, 54	06	11%
Research & medical ethics	22, 35, 55	03	5%

15/11/22

Prof. Mobina Ahsan Dodhy
Chairperson Pathology Department
Rawalpindi Medical University

19/12/22

Assistant Director
Department of Medical Education
Rawalpindi Medical University

29/12/22

Vice Chancellor
Rawalpindi Medical University
Rawalpindi

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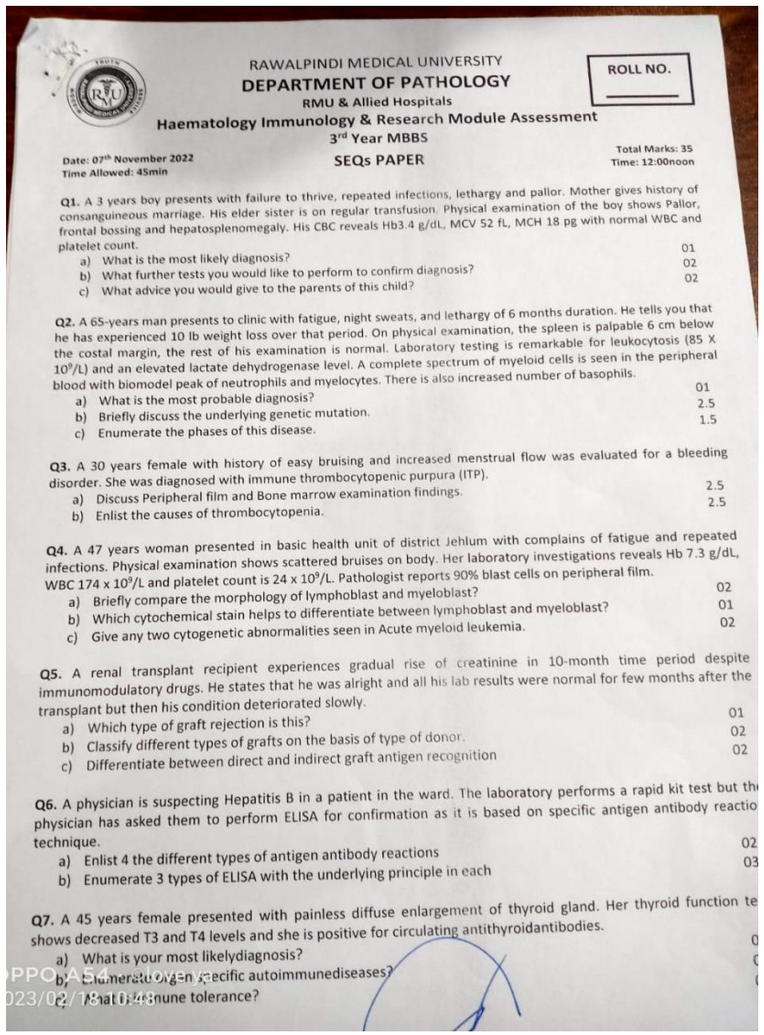
Sample Paper Of SEQs



RAWALPINDI MEDICAL UNIVERSITY

DEPARTMENT OF PATHOLOGY

RMU & Allied Hospitals

Haematology Immunology & Research Module Assessment

3rd Year MBBS

SEQs PAPER

ROLL NO. _____

Date: 07th November 2022
Time Allowed: 45min

Total Marks: 35
Time: 12:00noon

Q1. A 3 years boy presents with failure to thrive, repeated infections, lethargy and pallor. Mother gives history of consanguineous marriage. His elder sister is on regular transfusion. Physical examination of the boy shows Pallor, frontal bossing and hepatosplenomegaly. His CBC reveals Hb3.4 g/dL, MCV 52 fL, MCH 18 pg with normal WBC and platelet count.

a) What is the most likely diagnosis? 01
b) What further tests you would like to perform to confirm diagnosis? 02
c) What advice you would give to the parents of this child? 02

Q2. A 65-years man presents to clinic with fatigue, night sweats, and lethargy of 6 months duration. He tells you that he has experienced 10 lb weight loss over that period. On physical examination, the spleen is palpable 6 cm below the costal margin, the rest of his examination is normal. Laboratory testing is remarkable for leukocytosis (85 X 10^9/L) and an elevated lactate dehydrogenase level. A complete spectrum of myeloid cells is seen in the peripheral blood with biomodel peak of neutrophils and myelocytes. There is also increased number of basophils.

a) What is the most probable diagnosis? 01
b) Briefly discuss the underlying genetic mutation. 2.5
c) Enumerate the phases of this disease. 1.5

Q3. A 30 years female with history of easy bruising and increased menstrual flow was evaluated for a bleeding disorder. She was diagnosed with immune thrombocytopenic purpura (ITP).

a) Discuss Peripheral film and Bone marrow examination findings. 2.5
b) Enlist the causes of thrombocytopenia. 2.5

Q4. A 47 years woman presented in basic health unit of district Jehlum with complains of fatigue and repeated infections. Physical examination shows scattered bruises on body. Her laboratory investigations reveals Hb 7.3 g/dL, WBC 174 x 10^9/L and platelet count is 24 x 10^9/L. Pathologist reports 90% blast cells on peripheral film.

a) Briefly compare the morphology of lymphoblast and myeloblast? 02
b) Which cytochemical stain helps to differentiate between lymphoblast and myeloblast? 01
c) Give any two cytogenetic abnormalities seen in Acute myeloid leukemia. 02

Q5. A renal transplant recipient experiences gradual rise of creatinine in 10-month time period despite immunomodulatory drugs. He states that he was alright and all his lab results were normal for few months after the transplant but then his condition deteriorated slowly.

a) Which type of graft rejection is this? 01
b) Classify different types of grafts on the basis of type of donor. 02
c) Differentiate between direct and indirect graft antigen recognition 02

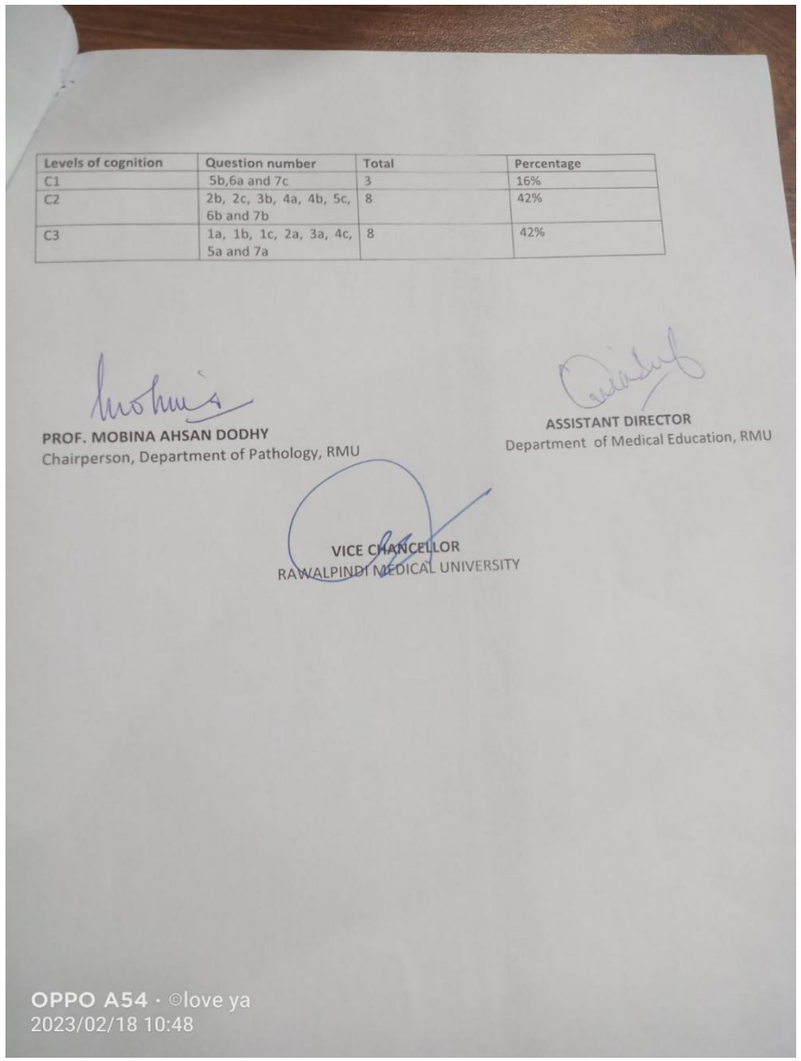
Q6. A physician is suspecting Hepatitis B in a patient in the ward. The laboratory performs a rapid kit test but th physician has asked them to perform ELISA for confirmation as it is based on specific antigen antibody reactio technique.

a) Enlist 4 the different types of antigen antibody reactions 02
b) Enumerate 3 types of ELISA with the underlying principle in each 03

Q7. A 45 years female presented with painless diffuse enlargement of thyroid gland. Her thyroid function te shows decreased T3 and T4 levels and she is positive for circulating antithyroidantibodies.

a) What is your most likelydiagnosis?
b) Enumerate [illegible] specific autoimmunediseases?
c) What is [illegible] immune tolerance?

Detailed Analysis Of SEQs Paper



Levels of cognition	Question number	Total	Percentage
C1	5b,6a and 7c	3	16%
C2	2b, 2c, 3b, 4a, 4b, 5c, 6b and 7b	8	42%
C3	1a, 1b, 1c, 2a, 3a, 4c, 5a and 7a	8	42%

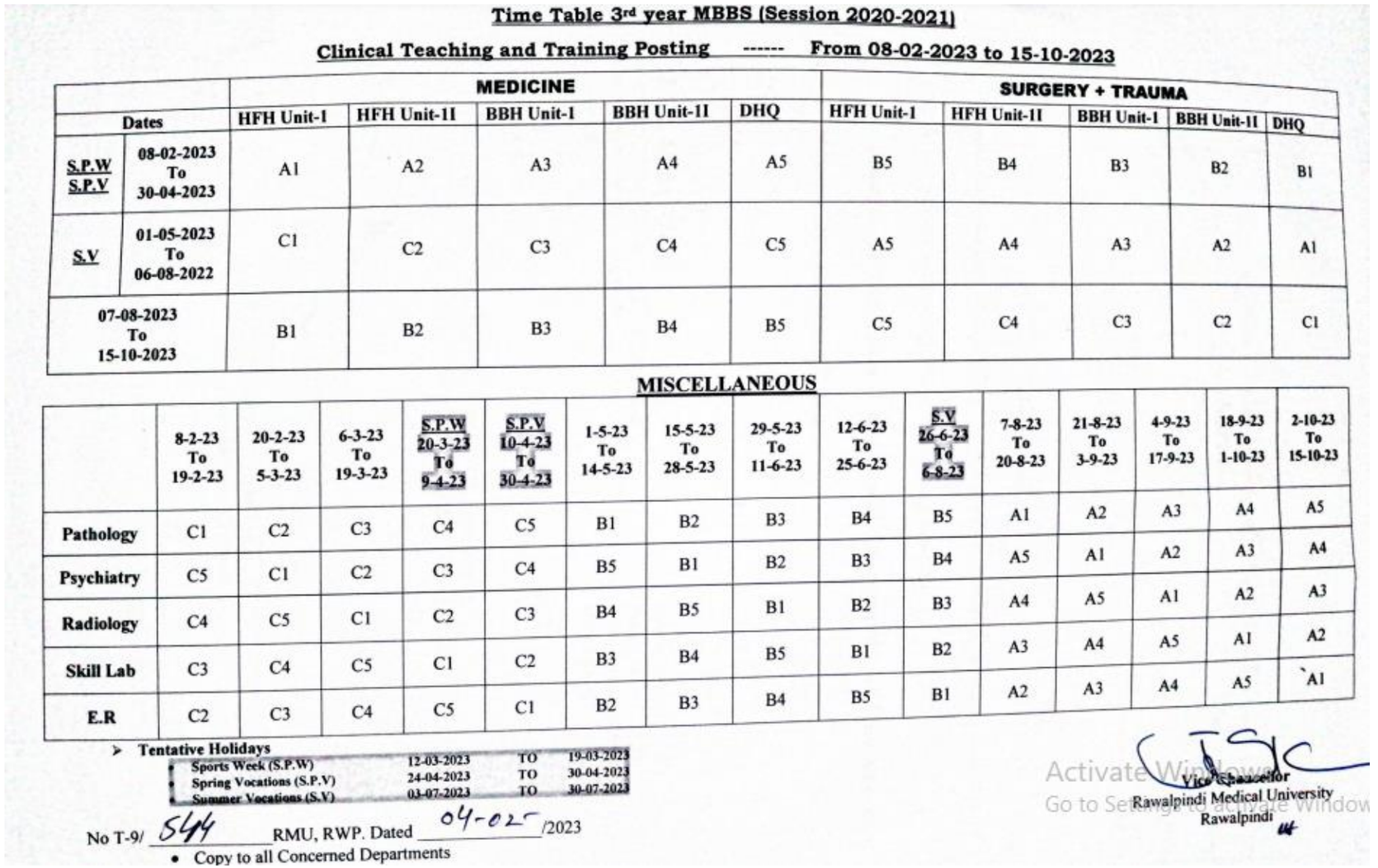
PROF. MOBINA AHSAN DODHY
Chairperson, Department of Pathology, RMU

ASSISTANT DIRECTOR
Department of Medical Education, RMU

VICE CHANCELLOR
RAWALPINDI MEDICAL UNIVERSITY

Date: 18th February, 2023 by DME, New Teaching Block

ANNEXURE II



Time Table 3rd year MBBS (Session 2020-2021)

Clinical Teaching and Training Posting ------ From 08-02-2023 to 15-10-2023

Dates		MEDICINE					SURGERY + TRAUMA				
		HFH Unit-1	HFH Unit-II	BBH Unit-1	BBH Unit-II	DHQ	HFH Unit-1	HFH Unit-II	BBH Unit-1	BBH Unit-II	DHQ
S.P.W S.P.V	08-02-2023 To 30-04-2023	A1	A2	A3	A4	A5	B5	B4	B3	B2	B1
S.V	01-05-2023 To 06-08-2022	C1	C2	C3	C4	C5	A5	A4	A3	A2	A1
07-08-2023 To 15-10-2023		B1	B2	B3	B4	B5	C5	C4	C3	C2	C1

MISCELLANEOUS

	8-2-23 To 19-2-23	20-2-23 To 5-3-23	6-3-23 To 19-3-23	S.P.W 20-3-23 To 9-4-23	S.P.V 10-4-23 To 30-4-23	1-5-23 To 14-5-23	15-5-23 To 28-5-23	29-5-23 To 11-6-23	12-6-23 To 25-6-23	S.V 26-6-23 To 6-8-23	7-8-23 To 20-8-23	21-8-23 To 3-9-23	4-9-23 To 17-9-23	18-9-23 To 1-10-23	2-10-23 To 15-10-23
Pathology	C1	C2	C3	C4	C5	B1	B2	B3	B4	B5	A1	A2	A3	A4	A5
Psychiatry	C5	C1	C2	C3	C4	B5	B1	B2	B3	B4	A5	A1	A2	A3	A4
Radiology	C4	C5	C1	C2	C3	B4	B5	B1	B2	B3	A4	A5	A1	A2	A3
Skill Lab	C3	C4	C5	C1	C2	B3	B4	B5	B1	B2	A3	A4	A5	A1	A2
E.R	C2	C3	C4	C5	C1	B2	B3	B4	B5	B1	A2	A3	A4	A5	A1

- **Tentative Holidays**
  - Sports Week (S.P.W) 12-03-2023 TO 19-03-2023
  - Spring Vocations (S.P.V) 24-04-2023 TO 30-04-2023
  - Summer Vocations (S.V) 03-07-2023 TO 30-07-2023

No T-9/ 544 RMU, RWP. Dated 04-02-2023

- Copy to all Concerned Departments

Vice Chancellor
Rawalpindi Medical University
Rawalpindi

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