

COURSE CURRICULUM FOR SECOND PROFESSIONAL B.U.M.S

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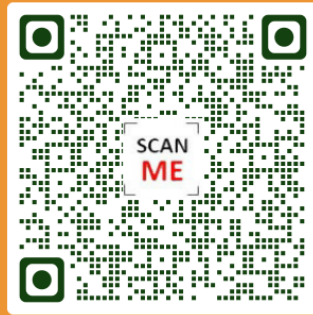
**MAHIYATUL AMRAZ
(PATHOLOGY)**

(SUBJECT CODE: UNIUG-MA)

(Applicable from 2021-22 batch, from the academic year 2023-24 onwards for 5 years or until further notification by NCISM, whichever is earlier)



**BOARD OF UNANI, SIDHA AND SOWA-RIGPA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
NEW DELHI-110058**



NCISM_II BUMS_U

PREFACE

In the Unani system of medicine, Mahiyatul Amraz is a fundamental subject for understanding Unani medical perspective of diseases. In this subject, the abnormalities in structure and functions are dealt with based on holistic philosophy. The alterations of Ṭabī‘at and Umūr Ṭabī‘iyya are studied correlating their role in the etiopathogenesis of diseases. The classical Unani concept of Aḥwāl Badan, Asbāb and ‘Alāmāt explain the etiopathogenesis, morphological changes and clinicopathological correlations of the diseases. ‘Alāmāt, Nabz, Bawl, Barāz and a few other classical methods are tools of Unani diagnosis for developing the correct management plan. In this subject, in addition to Unani pathology, the students will also study modern pathological processes such as cell injury, inflammation, thrombosis, neoplasia etc, their relevance with organ-specific pathology, essentials of microbiology including sterilization, staining techniques, pathogenesis, sensitivity, antigenic properties and other general characteristics of bacteria, viruses, fungi, and parasites. Previously, the Unani subject was limited to general pathology only, while modern medicine's both aspects i.e. general as well as systemic pathology were kept.

Considering the importance of Unani systemic pathology, Unani Mahiyat, Asbāb & Alāmāt of selected diseases are added to this curriculum. In the modern portion of pathology, updated conventional terms are used, important topics are included, topics that are not much required at the undergraduate level or may be repeated in other subjects are omitted, and diseases are categorized according to Unani description of A‘zā’ Ra’īsa. Educating both Unani and modern conceptual basics is needed at the undergraduate level rather than teaching their correlations (which are expected at the postgraduate level), hence standard terms of both systems are kept separately, avoiding confusion. After mastering this syllabus, hopefully the students will be capable of applying the holistic philosophy of ‘Ilmul Amrāz in emerging diseases for their diagnosis according to Unani medicine and will become competent Unani medical professionals to deal with the current health challenges.

NCISM
II Professional Kamile Tib o Jarahat
(Bachelor of Unani Medicine and Surgery – B.U.M.S)

Subject Code : UNIUG-MA

MAHIYATUL AMRAZ
(PATHOLOGY)

Summary

Total number of Teaching hours: 420			
Lecture hours (LH) - Theory		160 Hours	160 Hours (LH)
Paper I	75 Hours		
Paper II	85 Hours		
Non-Lecture hours (NLH) – Theory		78 Hours	260 Hours (NLH)
Paper I	39 Hours		
Paper II	39 Hours		
Non-Lecture hours (NLH) - Practical		182 Hours	

Examination (Papers & Mark Distribution)					
Item	Theory Component Marks	Practical Component Marks			
		Practical	Viva	Elective	IA
Paper I	100	100	30	-	20
Paper II	100				
Sub-Total	200	150			
Total Marks	350				

Important Note:-The User Manual II BUMS is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual II before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic. In case of difficulty and questions regarding curriculum write to cur.imp@ncismindia.org

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Course Code and Name of Course

Course code	Name of Course
UNIUG-MA	Mahiyatul Amraz

Table 1- Course learning outcomes and matched PO

SRI CO No	A1 Course learning Outcomes (CO) UNIUG-MA At the end of the course UNIUG-MA, the students should be able to-	B1 Course learning Outcomes matched with program learning outcomes.
CO1	Illustrate the basic concept of Aḥwāl Badan (احوال بدن) and its Asbāb (اسباب) & ‘Alāmāt (علامات) in order to explain etiopathogenesis, morphological changes and clinico-pathological correlations of the diseases.	PO1,PO2
CO2	Relate alterations of Ṭabī‘at (طبیعت) and Umūr Ṭabī‘iyya (امور طبیعی) with etiopathogenesis of diseases.	PO1,PO2
CO3	Apply Ajnās Amrāz (اجناس امراض) i.e. Sū’i Mizāj (سوء مزاج), Sū’i Tarkeeb (سوء ترکیب), Tafarruq Ittiṣāl (تفرق اتصال) & Awrām (اورام) in etiopathogenesis and clinical presentations of diseases of different organ systems.	PO1,PO2
CO4	Diagnose the diseases with the help of ‘Alāmāt (علامات), Nabz (نبض), Bawl (بول), Barāz (براز) and other classical methods of Tashkhīṣ (تشخیص) for developing the correct plan of management.	PO1,PO2
CO5	Demonstrate understanding of essential basic pathological processes (such as cell injury, inflammation, thrombosis, neoplasia etc.) and their relevance with organ specific pathology required in diagnosis of diseases according to contemporary medical science.	PO2,PO3,PO6
CO6	Elucidate basic concepts of microbiology including sterilization, staining techniques, pathogenesis, sensitivity, antigenic properties and other general characteristics of bacteria, viruses, fungi, and parasites.	PO2,PO3

CO7	Perform, interpret & communicate laboratory tests and identify histopathological slides adhering to ethics.	PO2,PO3,PO4,PO5,PO6,PO7
CO8	Apply holistic philosophy of 'Ilmul Amrāz (علم الامراض) in emerging diseases for interpretation according to Unani medicine.	PO1,PO2,PO3,PO7

Table 2 : Contents of Course (Theory)

Paper 1					
Sr.No	A2 List of Topics	B2 Term	C2 Marks	D2 Lecture hours	E2 Non- Lecture hours (Theory)
1	<p>علم الاحوال 'Ilmul Aḥwāl</p> <p>(a) Sabab, Maraz & 'Araz سبب، مرض اور عرض</p> <p>(b) احوال بدن: صحت، مرض، حالت ثالثه</p> <p>Aḥwāl Badan: Ṣiḥḥat, Maraz, Ḥālat Sālisa</p> <p>(c) Ajnās Amrāz اجناس امراض</p> <p>امراض مفردہ: سوء مزاج، سوء ترکیب، تفرق اتصال اور ان کی اقسام</p> <p>Amrāz Mufrada: Sū'i Mizāj, Sū'i Tarkeeb, Tafarruq Ittiṣāl & their classification</p> <p>(d) امراض مرکبہ: اورام و بخور اور ان کی اقسام</p> <p>Amrāz Murakkaba: Awrām & Busūr and their classification</p> <p>(e) امراض کے نام رکھنے کے اصول (وجہ تسمیہ)</p> <p>Principles of nomenclature of disease (Wajah Tasmiya)</p> <p>(f) دیگر اقسام امراض: امراض ظاہرہ و باطنہ، امراض خاصہ و مشترکت، مرض مسلم اور غیر مسلم، امراض معدیہ، تعدیہ، امراض متوارثہ، امراض جنسیہ، درجات (مدارج) صحت و مرض، اوقات امراض</p> <p>Other types of diseases: Amrāz Zāhira & Bāṭina, Amrāz Khāṣṣa & Shirkat, Maraz Musallim & Ghayr Musallim, Amrāz Mu'diya, Ta'diya, Amrāz Mutawārisa, Amrāz Jinsiyya, Darajāt Ṣiḥḥat & Maraz, Awqāt Amrāz</p>	1	10	10	4
2	<p>علم الاسباب 'Ilmul Asbāb</p> <p>اسباب عامہ 'Asbāb 'Āmma</p> <p>2.1. اسباب سابقہ، اسباب واصلہ، اسباب بادیہ</p> <p>Asbāb Sābiqa, Asbāb Wāṣila, Asbāb Bādiya</p> <p>2.2. Sharā'it Ta'sirāt اسباب کے شرائط</p> <p>2.3. اسباب مختلفہ و غیر مختلفہ</p>	1	20	15	6

<p>Asbāb Mukhallifa & Ghayr Mukhallifa</p> <p>2.4. اسباب ضروریہ و غیر ضروریہ</p> <p>Asbāb Zarūriyya & Ghayr Zarūriyya</p> <p>اسباب جزئیہ Asbāb Juz'iyya</p> <p>2.5. اسباب سوء مزاج: مسخّنات، مبردات، مرطبات، محففات</p> <p>Asbāb Sū'i Mizāj: Musakhkhināt, Mubarridāt, Murattibāt, Mujaffifāt</p> <p>2.6. مفسّدات شکل Mufsidāt Shakl</p> <p>2.7. اسباب سده Asbāb Sudda</p> <p>2.8. اسباب ضیق مجاری Asbāb Zīq Majārī</p> <p>2.9. اسباب اتساع مجاری Asbāb Ittisā' Majārī</p> <p>2.10. اسباب خشونت Asbāb Khushūnat</p> <p>2.11. اسباب ملاست Asbāb Malāsāt</p> <p>2.12. اسباب خلع و مفارقت وضع</p> <p>Asbāb Khal' & Mufaraqat Waz'</p> <p>2.13. اسباب سوء مجاورت قریب</p> <p>Asbāb Sū'i Mujāwirat Qarīb</p> <p>2.14. اسباب سوء مجاورت بعید</p> <p>Asbāb Sū'i Mujāwirat Ba'īd</p> <p>2.15. اسباب حرکات غیر طبیعیہ</p> <p>Asbāb Ḥarakāt Ghayr Ṭabī'iyya</p> <p>2.16. اسباب زیادتی عدد و مقدار</p> <p>Asbāb Ziyādatī 'Adad & Miqdār</p> <p>2.17. اسباب نقصان عدد و مقدار</p> <p>Asbāb Nuqṣān 'Adad & Miqdār</p> <p>2.18. اسباب تفرق اتصال Asbāb Tafarruq Ittiṣāl</p> <p>2.19. اسباب قرحہ Asbāb Qarḥa</p> <p>2.20. ورم کے اسباب (بلحاظ مادہ و ہیئت اعضاء)</p> <p>Asbāb Waram (according to Madda & Hay'at A'za)</p> <p>2.21. وجع کے مطلق اسباب Mutlaq Asbāb Waja'</p> <p>2.22. وجع کی مختلف اقسام کے اسباب</p>				
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	<p>Asbāb of different types of Waja‘</p> <p>2.23. اسباب تسکین وجع. Asbāb Taskīn Waja‘</p> <p>2.24. وجع کے اثرات. Asarāt Waja‘</p> <p>2.25. اسباب لذت. Asbāb Lazzat</p> <p>2.26. حرکت سے وجع پیدا ہونے کے اسباب</p> <p>Asbāb Waja‘ originating from Ḥarakat</p> <p>2.27. خلط ردی سے وجع پیدا ہونے کے اسباب</p> <p>Asbāb Waja‘ originating from Khilṭ Radī</p> <p>2.28. ریح سے وجع پیدا ہونے کے اسباب</p> <p>Asbāb Waja‘ originating from Riyāḥ</p> <p>2.29. اسباب تھمہ وامتلاء. Asbāb Tukhma & Imtilā‘</p> <p>2.30. اسباب احتباس و استفرغ. Asbāb Iḥtibās & Istifrāgh</p>				
3	<p>علم العلامات ‘Alāmāt</p> <p>(a) دال، مذکر، تقدیم، المعرفہ، علامات کی اقسام اور تشخیصی اہمیت</p> <p>علامات صحیہ (جوہریہ، عرضیہ، تمامیہ)، علامات مرضیہ</p> <p>Types of ‘Alāmāt and their diagnostic importance: Dāll, Muzakkir, Taqdimatul Ma‘rafa, ‘Alāmāt Ṣiḥḥiyya (‘Alāmāt Jawhariyya, Alāmāt ‘Arziyya, ‘Alāmāt Tamāmiyya), ‘Alāmāt Maraziyya</p> <p>(b) علامات امراض ظاہرہ</p> <p>‘Alāmāt Amrāz Zāhira</p> <p>(c) علامات امراض باطنہ</p> <p>‘Alāmāt Amrāz Bāṭina</p> <p>(d) امراض خاصہ (اصلیہ) و مشارکہ کے درمیان علامات فارقہ</p> <p>‘Alāmāt Fāriqa between Amrāz Khāṣṣa (Aṣliyya) & Mushāraka.</p> <p>(e) (سوء مزاج حار، بارد، رطب، یابس) غیر طبعی (عارضی) مزاج کی علامات</p> <p>‘Alāmāt Ghayr Ṭab‘ī (‘Ārzi) Mizāj (Sū‘i Mizāj Ḥarr, Bārid, Raṭb, Yābis)</p> <p>(f) علامات امتلاء (امتلاء بحسب الاوعیہ، امتلاء بحسب القوۃ)</p> <p>Alāmāt Imtilā‘ (Imtilā‘ bi Ḥasbi‘l Aw‘iya, Imtilā‘ bi Ḥasbi‘l Quwwa)</p> <p>(g) علامات غلبہ اخلاط</p> <p>Alāmāt Ghalaba‘ Akhlāt</p> <p>(h) علامات ریح</p> <p>Alāmāt Riyāḥ</p>	2	15	8	5

	(i) علامات سده 'Alāmāt Sudda (j) علامات تفرق اتصال 'Alāmāt Tafarruq Ittiṣāl (k) علامات اورام 'Alāmāt Awrām				
4	Methods of Tashkhīṣ of Amrāz (a) نبض Nabz (b) بول و براز Bawl & Barāz (c) دیگر تشخیصی ذرائع: تنفس، نفث، عرق (پسینہ) Other methods of Tashkhīṣ: Tanaffus (respiration), Nafs (sputum), Araq (Sweat)	2	10	9	5
5	Microbiology (a) Classification of Microorganisms (Bacteria, Viruses, Fungi, Parasites) (b) Bacterial Toxins (exotoxin & endotoxin) (c) Gram-Positive Bacteria: Staphylococcus, Streptococcus, Pneumococcus Acid Fast Bacilli: Mycobacterium tuberculosis (d) Gram-Negative Bacteria: E. Coli, Salmonella, Shigella, Neisseria Meningitides (e) General description of viruses	2	15	12	5
6	Amrāz A'za' Nafsāniyya امراض اعضاء نفسانیہ Amrāz Ra's امراض راس (a) شقیقہ، سرسام، سہر، نسیان، مالتخولیا، فالج Shaḡīqa, Sarsām, Sahar, Nisyān, Mālankhūliyā, Fālij (b) Meningitis	3	10	6	3
7	Amrāz A'za' Zāhira امراض اعضاء ظاہرہ (a) وجع المفاصل، نقرس، عرق النساء، سمن مفطرط Waja'ul Mafāsil, Niqris, 'Irqun Nasā, Siman Mufriṭ (b) برص، قوبا، شری، انتشار شعر Baraṣ, Qūbā, Sharā, Intisār Sha'r	3	10	7	3
8	Other Amrāz امراض متفرقة (a) حمیات: حمی یوم، حمی دقید، حمی عنونی، حمی وبائی Ḥummayāt: Ḥummā Yawm, Ḥummā Diqqiyya, Ḥummā Ufūniyya, Ḥummā Wabāī (b) Anaemia	3	10	8	8

	(c) Leukaemia (d) Hypothyroidism, Hyperthyroidism				
Total Marks			100	75 hrs	39 hrs

Table 2 : Contents of Course (Theory)

Paper 2					
Sr.No	A2 List of Topics	B2 Term	C2 Marks	D2 Lecture hours	E2 Non- Lecture hours (Theory)
9	Cellular responses to Stress & Injury (a) Cell Injury (Reversible & Irreversible): Etiopathogenesis, Morphology, Cloudy swelling, Steatosis, Necrosis, Gangrene, Infarction (b) Cellular Adaptation: Atrophy, Hypertrophy, Hyperplasia, Metaplasia, Dysplasia	1	10	9	2
10	Inflammation & Repair (a) Acute inflammation: Vascular & Cellular events, Morphological Types, Effects (b) Inflammatory mediators (c) Chronic Inflammation: Tuberculosis (d) Regeneration & Repair	1	5	6	2
11	Haemodynamic Disorders (a) Hyperaemia & Congestion (b) Oedema (c) Thrombosis & Embolism (d) Shock	1	5	5	2
12	Diseases of Immune System (a) Hypersensitivity Reactions (b) Autoimmune Diseases (c) Immune Deficiency Disorders	1	5	3	2
13	Neoplasia (a) Nomenclature (b) Characteristics (c) Differences in Benign & Malignant Tumours (d) Grading & Staging of Tumours (e) Etiology of Cancer	1	5	3	2

14	<p>Amrāz A'za' Ṭabī'iyya - I أمراض أعضاء طبيعية</p> <p>Amrāz Dahan, Mi'da & Am'ā' أمراض دهن، معدة و أمعاء</p> <p>(a) قلاع، ورم معدة، ضعف هضم، ضعف الشهية، زحير، حصر (قبض)، بواسير Qulā', Waram Mi'da, Zu'f Hazm, Zu'f Ishtihā', Zaḥīr, Ḥuṣr (Qabz), Bawāsīr</p> <p>(b) Gastritis, Peptic Ulcer Disease, Enteric Fever, Dysentery, Inflammatory bowel disease</p>	2	10	10	5
15	<p>Amrāz A'za' Ṭabī'iyya - II أمراض أعضاء طبيعية</p> <p>Amrāz Kabid, Marāra & Bānqarās أمراض كبد، مرارة و بانكراس</p> <p>(a) ضعف كبد، ورم كبد، يرقان Zu'f Kabid, Waram Kabid, Yarqān</p> <p>(b) Viral Hepatitis, Jaundice, Cirrhosis of Liver, Cholecystitis, Pancreatitis, Diabetes Mellitus</p>	2	15	10	5
16	<p>Amrāz A'za' Ṭabī'iyya - III أمراض أعضاء طبيعية</p> <p>Amrāz Kulya & Masāna أمراض كلية و مثانة</p> <p>(a) ضعف كلية، زيابيطس، حصاة كلية و مثانة، ورم مثانة، تقطير البول Zu'f Kulya, Zayābītus, Ḥaṣāt Kulya & Masāna, Waram Masāna, Taqtīrul Bawl</p> <p>(b) Renal Failure, Glomerulonephritis, Nephritic & Nephrotic Syndrome, Urolithiasis</p>	2	10	10	5
17	<p>Amrāz A'za' Tānāsul أمراض أعضاء تناسل</p> <p>ضعف باه، جريان، عقتر، سيلان الرحم Zu'f Bāh, Jarayān, 'Uqr, Sayalānur Raḥim</p>	2	5	2	2
18	<p>Amrāz A'za' Ḥaywāniyya - I أمراض أعضاء حيوانية</p> <p>Amrāz Qalb & 'Urūq أمراض قلب و عروق</p>	3	15	14	6

	<p>(a) خفقان، غشي Khafaqān, Ghashī</p> <p>(b) Ischaemic Heart Disease (Angina Pectoris & Myocardial Infarction), Endocarditis, Rheumatic Heart Disease, Valvular Heart Disease (Mitral & Aortic Stenosis & Regurgitation), Heart Failure, Pericarditis</p> <p>(c) Arteriosclerosis, Aneurysm, Hypertension</p>				
19	<p>امراض اعضاء حيوانية Amrāz A'za' Ḥaywāniyya - II امراض رئه Amrāz Ri'a</p> <p>(a) نزله وزكام، ورم حلق، ضيق النفس، سعال، ذات الرئه Nazla & Zukām, Waram Ḥalq, Zīqun Nafas, Su'āl, Zātur Ri'a</p> <p>(b) Chronic Bronchitis, Emphysema, Bronchial Asthma, Bronchiectasis, Pneumonia</p>	3	15	13	6
Total Marks			100	85 hrs	39 hrs

Table 3: Learning objectives (Theory) of Course

Paper 1									
A3 Course outcome	B3 Learning Objective (At the end of the session, the students should be able to)	C3 Domain /sub	D3 Must to know / desirable to know / Nice to know	E3 Level Does/ Shows how/ Knows how/ Know	F3 T-L method	G3 Assessment (Refer abbreviatio ns)	H3 Formative/ summative	I3 Term	J3 Integration
Topic 1									
علم الأحوال 'Ilmul Aḥwāl (Lecture : 10 hours, Non lecture: 4 hours)									
CO1	Define 'Ilmul Aḥwāl, Sabab, Maraz & 'Araz with examples.	CK	MK	KH	L,L&GD	T- EW,P-VIVA	F&S	I	
CO1	Classify and describe Aḥwāl Badan (Ṣiḥḥat, Maraz, Ḥālat Sālisa).	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	I	H-TST
CO1,CO2, CO3	Explain Ajnās Amrāz (Amrāz Mufrada & Amrāz Murakkaba).	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	I	
CO1,CO2, CO3	Categorize Amrāz Mufrada (Sū'i Mizāj, Sū'i Tarkeeb, Tafarruq Ittiṣāl & their subtypes).	CC	MK	KH	L,KL	P-VIVA,TH	F&S	I	
CO1,CO2, CO3	Define, classify and differentiate Awrām & Busūr.	CC	MK	KH	L,TBL	P-VIVA,TH	F&S	I	V-AJT
CO1	Enlist principles of nomenclature of disease (Wajah Tasmiya).	CK	NK	K	L,SDL	PUZ,WP	F&S	I	

CO1	Interpret & name emerging diseases as per Unani philosophy.	CK	NK	K	L,DIS	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Describe Darajāt & Anjām of Awrām Ḥārā.	CK	MK	K	L,L&GD	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Differentiate between Amrāz Zāhira & Bāṭina, Amrāz Khāṣṣa & Shirkat, Maraz Musallim & Ghayr Musallim.	CC	MK	K	L,TBL	DEB	F&S	I	
CO1,CO2,CO3	Describe Amrāz Mu'diya, Ta'diya, Amrāz Mutawārisa, Amrāz Jinsiyya.	CK	MK	K	L,L&GD	P-VIVA,TH	F&S	I	H-TST
CO1,CO2	Describe Darajāt (Madārij) Ṣiḥḥat & Maraz.	CK	DK	K	L,IBL	P-VIVA,TH	F&S	I	H-TST
CO1,CO2	Explain Awqāt Amrāz.	CK	MK	K	L,L&GD	P-VIVA,TH	F&S	I	
Topic 2									
علم الاسباب 'Ilmul Asbāb									
(Lecture : 15 hours, Non lecture: 6 hours)									
CO1	Define Asbāb Sābiqa, Asbāb Wāṣila, Asbāb Bādiya and explain their interrelations.	CC	MK	KH	L,DIS,BS	P-VIVA,QZ	F&S	I	H-TST
CO1,CO2	Explain Sharā'it of Ta'sirāt Asbāb.	CK	MK	K	L,DIS	P-VIVA,TH	F&S	I	H-TST
CO1,CO2	Elucidate Asbāb Mukhallifa & Ghayr Mukhallifa.	CK	DK	K	L,DIS	P-VIVA,TH	F&S	I	
CO1,CO2	Define & enlist Asbāb Zarūriyya & Ghayr Zarūriyya.	CC	NK	KH	L,SY	P-VIVA,TH	F&S	I	H-TST
CO1,CO2,CO3	Explain Musakhkhināt, Mubarridāt, Muratṭibāt, Mujaffifāt.	CC	DK	KH	L,DIS,BS	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Elaborate Mufsidāt Shakl.	CC	MK	KH	L,KL	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Describe Asbāb Sudda.	CK	MK	K	L&GD	P-VIVA,TH	F&S	I	

CO1,CO2,CO3	Describe Asbāb Zīq Majārī.	CK	MK	K	L&GD	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Elaborate Asbāb Ittisā' Majārī.	CK	MK	K	L&GD	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Describe Asbāb Khushūnat & Asbāb Malāsāt.	CK	MK	K	L,DIS	T-OBT	F&S	I	
CO1,CO2,CO3	Explain Asbāb Khal' & Mufaraqat Waz'.	CC	MK	KH	L,FC	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Describe Asbāb Sū'i Mujāwirat Qarīb & Asbāb Sū'i Mujāwirat Ba'id.	CC	MK	KH	L,TUT	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Describe Asbāb Ḥarakāt Ghayr Ṭabī'iyya.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Describe Asbāb Ziyādātī Miqdār & 'Adad and Asbāb Nuqṣān Miqdār & 'Adad.	CC	MK	KH	L,TUT	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Enumerate Asbāb Tafarruq Ittiṣāl & Asbāb Qarḥa.	CC	MK	KH	L&GD	WP,O-QZ	F&S	I	
CO1,CO2,CO3	Explain Asbāb Waram (according to Madda & Hay'at A'za).	CC	MK	KH	L&GD	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Classify Waja' and explain Asbāb Waja' & Asbāb Taskīn Waja'.	CC	MK	KH	L&GD	T-OBT	F&S	I	
CO1,CO2,CO3	Describe Asarāt of Waja' and Asbāb Lazzat.	CC	MK	KH	L,TUT	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Elucidate Asbāb Waja' originating from Ḥarakat, Khilṭ Radī and Riyāḥ.	CC	MK	KH	L,PBL	P-VIVA,TH	F&S	I	
CO1,CO2,CO3	Explain Asbāb Ufūnat, Tukhma & Imtilā'.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	I	

CO1,CO2,CO3	Explain Asbāb Ihtibās & Istifrāgh.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	I	
CO1,CO2	Describe Asbāb Zu'f A'zā'.	CC	MK	KH	L,SY	P-VIVA,TH	F&S	I	
Topic 3									
علم الطرائف 'Ilmul 'Alāmāt									
(Lecture : 8 hours, Non lecture: 5 hours)									
CO1,CO2,CO3	Explain 'Alāmāt Amrāz Zāhira.	CC	NK	KH	L&GD	P-VIVA,TH	F&S	II	
CO1,CO2,CO3	Describe 'Alāmāt Amrāz Bāṭina.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO1,CO2,CO3	Describe 'Alāmāt Fāriqa of Amrāz Khāṣṣa (Aṣliyya) & Mushāraka.	CC	MK	KH	L,DIS,S DL	P-VIVA,TH	F&S	II	
CO1,CO2,CO3	Explain 'Alāmāt of Ghayr Ṭab'ī ('Ārzi) Mizāj (Sū'i Mizāj Ḥārr, Bārid, Raṭb, Yābis).	CK	MK	K	L,SY	P-VIVA,TH	F&S	II	
CO1,CO2,CO3	Describe 'Alāmāt Ghalaba' Akhlāṭ.	CC	MK	KH	L,SY	P-VIVA,TH	F&S	II	
CO1,CO2,CO3	Explain Alāmāt Imtilā'.	CC	MK	K	L&GD	P-VIVA,TH	F&S	II	
CO1,CO2,CO3	Differentiate between Imtilā' bi Ḥasbi'l Aw'iyā and Imtilā' bi Ḥasbi'l Quwwa.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO1,CO2,CO3	Describe 'Alāmāt Riyāḥ.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO1,CO2,CO3	Describe 'Alāmāt Sudda.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO1,CO2,CO3	Explain 'Alāmāt Tafarruq Ittiṣāl.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	

CO1,CO2,CO3	Describe ‘Alāmāt Awrām.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	II	
CO1,CO2,CO3	Define Dāll, Muzakkir, Taqdimatul Ma‘rafa.	CK	DK	K	L&GD	P-VIVA,TH	F&S	II	
CO1,CO2,CO3	Define ‘Alāmāt Şihhiyya (‘Alāmāt Jawhariyya, Alāmāt ‘Arziyya, ‘Alāmāt Tamāmiyya) and ‘Alāmāt Maraziyya.	CC	MK	K	L&GD,L S	T-OBT	F&S	II	
Topic 4 تشیخ امراض کے ذرائع Methods of Tashkhīş of Amrāz (Lecture : 9 hours, Non lecture: 5 hours)									
CO1,CO4	Define Nabz and mention its significance.	CC	MK	K	L&GD	P-VIVA,TH	F	II	H-SUI
CO1,CO4	Describe Tarkeeb Nabza.	CC	DK	KH	L,IBL	P-VIVA,TH	F	II	H-SUI
CO1,CO4	Enumerate and explain Adilla’ Nabz.	CC	MK	KH	L&GD,S DL,PL	P-VIVA,TH	F	II	H-SUI
CO1,CO4	Define Murakkab Nabz & enlist its types.	CC	MK	K	L&GD	P-VIVA,TH	F	II	H-SUI
CO1,CO4	Explain Asbāb of Nabz.	CK	MK	KH	L,TUT	T-OBT	F	II	H-SUI
CO1,CO4	Elucidate effect of Waja’ & Awram on Nabz.	CC	DK	KH	L&GD	P-VIVA,TH	F	II	H-SUI
CO1,CO4	Describe factors affecting Nabz.	CK	DK	K	L,DIS	P-VIVA,TH	F	II	H-SUI
CO1,CO4	Describe method of Nabz examination.	CC	MK	KH	L,ECE,P L	P-VIVA,TH	F	II	H-SUI
CO1,CO4	Enlist Sharā’iṭ of Mu‘āyana’ Qārūra.	CK	MK	K	L,DIS	WP,O-QZ	F&S	II	H-SUI
CO1,CO4	Enumerate Dalā’il Bawl.	CK	MK	K	L,DIS	P-VIVA,TH	F&S	II	
CO1,CO4	Explain types and clinical significance of Bawl Aşfar.	CC	MK	KH	L,D	M-CHT,M- POS	F&S	II	

CO1,CO4	Explain types and clinical significance of Bawl Aḥmar.	CC	MK	KH	L,D	M-CHT,M-POS	F&S	II	
CO1,CO4	Explain types and clinical significance of Bawl Akhzar.	CC	MK	K	L,D	M-CHT,M-POS	F&S	II	
CO1,CO4	Explain types and clinical significance of Bawl Aswad.	CC	MK	K	L,D	M-CHT,M-POS	F&S	II	
CO1,CO4	Explain types and clinical significance of Bawl Abyaz.	CC	MK	K	L,D	M-CHT,M-POS	F&S	II	
CO1,CO4	Explain types and clinical significance of Qiwām Bawl.	CC	MK	KH	L	P-VIVA,TH	F&S	II	
CO1,CO4	Describe Safai & Kudūrat of Bawl and explain its clinical significance.	CC	MK	K	L	P-VIVA,TH	F&S	II	
CO1,CO4	Describe the clinical importance of Rāiḥa Bawl.	CC	MK	K	L	P-VIVA,TH	F&S	II	
CO1,CO4	Explain the clinical importance of Zabad Bawl.	CC	MK	K	L	P-VIVA,TH	F&S	II	
CO1,CO4	Define Rasūb Bawl and explain the properties with clinical significance of Rusūb Ṭabī'ī.	CC	MK	K	L	P-VIVA,TH	F&S	II	
CO1,CO4	Explain types and clinical importance of Rasūb Ghayr Ṭabī'ī.	CC	MK	K	L	M-CHT,M-POS	F&S	II	
CO1,CO4	Explain the clinical importance of Miqdār Bawl.	CC	MK	K	L	P-VIVA,TH	F&S	II	
CO1,CO4	Explain diagnostic parameters of Barāz.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	II	
CO1,CO4	Explain the characteristics of Barāz Maḥmūd.	CC	DK	K	L	P-VIVA,TH	F&S	II	
CO1,CO4	Describe importance of Tanaffus (respiration), Nafs (sputum), Araḡ (Sweat) in diagnosis briefly.	CC	NK	KH	L	P-VIVA,TH	F&S	II	
Topic 5 Microbiology (Lecture : 12 hours, Non lecture: 5 hours)									

CO6	Classify microorganisms.	CK	MK	K	L,DIS	P-VIVA,TH	F&S	II	
CO6	Differentiate between endotoxin and exotoxins.	CC	MK	KH	L,TBL	T-OBT	F&S	II	
CO6	Explain features of Gram positive and Gram negative bacteria with examples.	CC	MK	KH	L,BL	P-VIVA,QZ	F&S	II	
CO6	Describe morphology, sensitivity, antigenic structure, enzymes/ toxins, pathogenesis, clinical presentations, methods of lab diagnosis of bacteria (Staphylococcus, Streptococcus, Pneumococcus, Mycobacterium tuberculosis, E. Coli, Salmonella, Shigella, Neisseria Meningitides).	CC	DK	KH	L&PPT	P-VIVA,TH	F&S	II	H-TST
CO6	Explain morphology and general properties of viruses.	CK	MK	K	L,BL	P-VIVA,TH	F&S	II	H-TST
CO6	Describe replication of viruses, and their lab diagnosis.	CC	NK	KH	L,TUT	P-VIVA,TH	F&S	II	H-TST
Topic 6 امراض اعضاء نفسانيه Amrāz A'za' Nafsāniyya امراض راس Amrāz Ra's (Lecture : 6 hours, Non lecture: 3 hours)									
CO2,CO3,CO4	Describe Mahiyat of Istirkhā'.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Describe Asbāb & Alāmāt of Istirkhā'.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	III	
CO5	Explain acute and chronic meningitis, their types, etiology, pathological changes and diagnostic features.	CC	MK	KH	L,L_VC,FC	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Describe Mahiyat of Shaqīqa.	CC	MK	KH	L,CBL	P-VIVA,TH	F&S	III	

CO2,CO3,CO4	Describe Asbāb & Alāmāt of Shaqīqa.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Explain Mahiyat of Sarsām.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Explain Asbāb & Alāmāt of Sarsām.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Describe Mahiyat of Sahar.	CC	MK	KH	L,CBL	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Describe Asbāb & Alāmāt of Sahar.	CC	MK	KH	L,CBL	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Explain Mahiyat, Asbāb & Alāmāt of Nisyān.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Discribe different types of Nisyān.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Describe Mahiyat, Asbāb & Alāmāt of Mālankhūliyā.	CC	MK	KH	L,PBL	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Discribe different types of Mālankhūliyā.	CC	NK	KH	L&GD	T-OBT	F&S	III	
CO2,CO3,CO4	Describe Mahiyat of Fālij.	CC	MK	KH	L,SY	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Describe Asbāb & Alāmāt of Fālij.	CC	MK	KH	L,SY	P-VIVA,TH	F&S	III	
Topic 7									
امراض اعضاء ظاهره Amrāz A'za' Zāhira									
(Lecture : 7 hours, Non lecture: 3 hours)									
CO2,CO3,CO4	Explain Mahiyat of Waja'ul Mafāṣil.	CC	MK	KH	L,PBL,RP	P-VIVA,TH	F&S	III	V-IBT

CO2,CO3,CO4	Explain Asbāb & Alāmāt of Waja‘ul Mafāsil.	CC	MK	KH	L,PBL	P-VIVA,TH	F&S	III	V-IBT
CO2,CO3,CO4	Explain different types of Waja‘ul Mafāsil.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	III	V-IBT
CO2,CO3,CO4	Describe Mahiyat of Niqris.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	V-IBT
CO2,CO3,CO4	Describe Asbāb & Alāmāt of Niqris.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	V-IBT
CO2,CO3,CO4	Describe Mahiyat of ‘Irqun Nasā.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	V-IBT
CO2,CO3,CO4	Describe Asbāb & Alāmāt of ‘Irqun Nasā.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	V-IBT
CO2,CO3,CO4	Explain Mahiyat, Asbāb & Alāmāt of Siman Mufrit.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	V-MOA
CO2,CO3,CO4	Describe Mahiyat & types of Baraş.	CC	DK	KH	L,BL	P-VIVA,TH	F&S	III	V-AJT
CO2,CO3,CO4	Describe Asbāb & Alāmāt of Baraş.	CC	MK	KH	L,BL	P-VIVA,TH	F&S	III	V-AJT
CO2,CO3,CO4	Explain Mahiyat of Qūbā.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	V-AJT
CO2,CO3,CO4	Explain Asbāb & Alāmāt of Qūbā.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	V-AJT
CO2,CO3,CO4	Describe Mahiyat of Sharā.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	V-AJT
CO2,CO3,CO4	Describe Asbāb & Alāmāt of Sharā.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	V-AJT

CO2,CO3,CO4	Explain Mahiyat of Intisār Sha‘r.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	III	V-AJT
CO2,CO3,CO4	Explain Asbāb & Alāmāt of Intisār Sha‘r.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	III	V-AJT
Topic 8									
امراض متفرقة Other Amrāz									
(Lecture : 8 hours, Non lecture: 8 hours)									
CO2,CO3,CO4	Enlist basic types of Ḥummayāt.	CK	MK	K	L	P-VIVA,TH	F&S	III	V-MOA
CO2,CO3,CO4	Describe Mahiyat of Ḥummā Yawm.	CC	DK	KH	L,KL	P-VIVA,TH	F&S	III	V-MOA
CO2,CO3,CO4	Give brief description of Asbāb & Alāmāt of Ḥummā Yawm.	CC	DK	KH	L,KL	P-VIVA,TH	F&S	III	V-MOA
CO2,CO3,CO4	Give brief description of Mahiyat of Ḥummā Diqqiyya.	CC	MK	KH	L,TUT	P-VIVA,TH	F&S	III	V-MOA
CO2,CO3,CO4	Give brief description of Asbāb & Alāmāt of Ḥummā Diqqiyya.	CC	MK	KH	L,TUT	P-VIVA,TH	F&S	III	V-MOA
CO2,CO3,CO4	Give brief description of Mahiyat, Asbāb & Alāmāt of Ḥummā Ufūniyya.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	III	V-MOA
CO2,CO3,CO4	Classify Ḥummā Ufūniyya.	CK	MK	K	L,TUT	P-VIVA,TH	F&S	III	V-MOA
CO2,CO3,CO4,CO8	Give brief description of Mahiyat of Ḥummā Wabā’ī.	CC	MK	KH	L,PBL,PrBL	T-OBT	F&S	III	H-TST,V-MOA
CO2,CO3,CO4,CO8	Give brief description of Asbāb & Alāmāt of Ḥummā Wabā’ī.	CC	MK	KH	L,PBL	P-VIVA,TH	F&S	III	H-TST,V-MOA
CO5	Categorize different types of anaemia.	CK	MK	K	L,TUT	P-VIVA,TH	F&S	III	

CO5	Describe etiopathogenesis, clinical features and diagnosis of iron deficiency anaemia.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	III	
CO5	Explain etiopathogenesis and clinical features of hypothyroidism.	CC	DK	KH	L,BL	P-VIVA,TH	F&S	III	
CO5	Explain etiopathogenesis and clinical features of hyperthyroidism.	CC	DK	KH	L,BL	P-VIVA,TH	F&S	III	

Table 3: Learning objectives (Theory) of Course

Paper 2									
A3 Course outcome	B3 Learning Objective (At the end of the session, the students should be able to)	C3 Domain/ sub	D3 Must to know / desirable to know / Nice toknow	E3 Level Does/ Shows how/ Knows how/ Know	F3 T-L method	G3 Assessment	H3 Formative/ summative	I3 Term	J3 Integration
Topic 9									
Cellular responses to Stress & Injury									
(Lecture : 9 hours, Non lecture: 2 hours)									
CO5	Define pathology, its branches and state the basics of pathology like etiology, pathogenesis, morphologic changes, signs & symptoms, sequelae, prognosis, complications, remission & relapse.	CC	MK	KH	L&PPT	T- EW	F&S	I	
CO5	Define cell injury and enlist types of cellular responses to injury.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Explain the etiology of cell injury	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Elucidate the mechanism of reversible & irreversible cell injury.	CC	MK	KH	L&PPT,L_VC	P-VIVA,TH	F&S	I	
CO5	Enumerate the morphology of reversible & irreversible cell injury.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Explain etiopathogenesis and morphology of cloudy swelling & steatosis.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	

CO5	Define necrosis and describe the various types of necrosis, causes and morphology of each with suitable examples	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Define gangrene and mention its types and differences between them.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Define apoptosis and enlist contrasting features of necrosis & apoptosis	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Define atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia, and mention causes & morphology of each	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Discuss role of free radicals in cell injury.	CC	DK	KH	L&PPT	P-VIVA,TH	F&S	I	
Topic 10 Inflammation & Repair (Lecture : 6 hours, Non lecture: 2 hours)									
CO5	Define inflammation & cardinal signs of inflammation.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Describe vascular and cellular events of acute inflammation.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Explain regulation of inflammation.	CC	DK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Elucidate morphological types & systemic effects of acute inflammation.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Describe briefly the mediators of inflammation.	CC	NK	KH	L&PPT,EDU	P-VIVA,TH	F&S	I	
CO5	Describe pathology of chronic inflammation.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Explain pathogenesis, types and diagnosis of tuberculosis.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	

CO5	Define regeneration and repair & discuss their mechanism.	CC	DK	KH	L&PPT	P-VIVA,TH	F&S	I	
Topic 11 Haemodynamic Disorders (Lecture : 5 hours, Non lecture: 2 hours)									
CO5	Define hyperaemia & congestion and describe briefly the causes & morphology of chronic venous congestion of lung, liver & spleen	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Explain pathophysiologic categories of oedema	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Explain mechanism of oedema.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Tabulate the differences between transudate & exudate.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Discuss the pathogenesis of oedema in cirrhosis of liver.	CC	NK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Explain the mechanism of cardiac oedema.	CC	DK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Discuss pathogenesis of renal oedema	CC	DK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Define thrombosis and describe etiopathogenesis of thrombus.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Differentiate between arterial & venous thrombus.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Explain morphology, fate & clinical effects of thrombi.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Define embolism and mention various types of emboli.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	

CO5	Describe etiopathogenesis & consequences of pulmonary thromboembolism	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Explain types & etiopathogenesis of shock.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Describe morphological changes in various organs (adrenal, kidney, heart, lungs, liver, brain & GIT) in shock.	CC	DK	KH	L&PPT	P-VIVA,TH	F&S	I	
Topic 12									
Diseases of Immune System									
(Lecture : 3 hours, Non lecture: 2 hours)									
CO5	Comprehend types of hypersensitivity reactions.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Enlist autoimmune disorders and describe mechanism of autoimmunity.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
	Describe briefly etiopathogenesis, morphology & diagnosis of systemic lupus erythematosus	CC	NK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Describe briefly etiopathogenesis, morphology & diagnosis of rheumatoid arthritis.	CC	DK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Describe basic concepts of immunodeficiency syndrome.	CC	NK	KH	L&PPT	P-VIVA,TH	F&S	I	
Topic 13 Neoplasia									
(Lecture : 3 hours, Non lecture: 2 hours)									
CO5	Define neoplasia & describe nomenclature of benign and malignant tumour.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Describe important characteristics of tumours in brief.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	

CO5	Differentiate between benign & malignant tumours.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Explain grading & staging of tumours.	CC	DK	KH	L&PPT	P-VIVA,TH	F&S	I	
CO5	Describe etiology of cancer briefly.	CC	NK	KH	L&PPT	P-VIVA,TH	F&S	I	
Topic 14									
Amrāz A'za' Ṭabī'iyya - I (امراض اعضاء طبيعية) Amrāz Dahan, Mi'da & Am'ā')									
(Lecture : 10 hours, Non lecture: 5 hours)									
CO5	Explain etiopathogenesis, morphology & complications of bacillary & amoebic dysentery.	CC	MK	KH	L,BL	P-VIVA,TH	F&S	II	
CO5	Describe etiopathogenesis of inflammatory bowel disease.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	II	
CO5	Differentiate between Crohn's disease & ulcerative colitis.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Explain Mahiyat & Asbāb of Qulā'.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Enlist types & Alāmāt of Qulā'.	CK	DK	K	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Elucidate Mahiyat & Asbāb of Waram Mi'da.	CC	MK	KH	L	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Enumerate types & Alāmāt of Waram Mi'da.	CK	MK	K	L	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Explain Mahiyat of Zu'f Hazm.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Explain Asbāb & Alāmāt of Zu'f Hazm.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Mahiyat of Zu'f Ishtihā'.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Asbāb & Alāmāt of Zu'f Ishtihā'.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Explain Mahiyat & Asbāb of Zaḥīr.	CC	MK	KH	L,DIS	P-VIVA,TH	F&S	II	

CO2,CO3,CO4	Explain types & Tashkhīṣ of Zaḥīr.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Mahiyat & Asbāb of Ḥuṣr (Qabz).	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe types & Alāmāt of Ḥuṣr (Qabz).	CC	NK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Define Bawāsīr and enlist its types.	CK	MK	K	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Asbāb & Tashkhīṣ of Bawāsīr.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO5	Describe etiopathogenesis of acute gastritis.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	II	
CO5	Explain etiopathogenesis & morphology of stress related mucosal disease.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	II	
CO5	Explain types & complications of chronic gastritis.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	II	
CO5	Elucidate etiopathogenesis & morphology of H. Pylori gastritis and autoimmune gastritis.	CC	DK	KH	L&PPT	P-VIVA,TH	F&S	II	
CO5	Elaborate etiopathogenesis, morphology & complications of peptic ulcer diseases.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	II	
CO5	Differentiate between gastric ulcer & duodenal ulcer.	CC	MK	KH	L&PPT,SIM	P-VIVA,TH	F&S	II	
CO5	Describe etiopathogenesis, morphology, complications & diagnosis of enteric fever.	CC	MK	KH	L,FC	P-VIVA,TH	F&S	II	
Topic 15									
امراض كبد، مراره و بانقراس) Amrāz Kabid, Marāra & Bānqarās) - II (امراض اعضاء طبيعية									
(Lecture : 10 hours, Non lecture: 5 hours)									
CO2,CO3,CO4	Define Zu'f Kabid and describe disorders in Quwā of Kabid.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Explain Asbāb & Tashkhīṣ of Zu'f Kabid.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	II	V-MOA

CO2,CO3,CO4	Elucidate Mahiyat & Asbāb of Waram Kabid.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Elucidate types & Tashkhīṣ of Waram Kabid.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Discuss the diagnostic features of Sū'i Mizāj Kabid.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Differentiate between Waram Kabid Ḥārr and Zātul Janb.	CC	NK	KH	L&GD	P-VIVA,TH	F&S	II	V-MOA
CO2,CO3,CO4	Define Yarqān and describe its types.	CK	MK	K	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Mahiyat & Asbāb of Yarqān Aşfar.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Tashkhīṣ of Yarqān Aşfar.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO5	Describe type of virus, route of transmission, incubation period, frequency of chronic liver disease, oncogenicity & diagnosis in various types of viral hepatitis.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO5	Explain clinicopathologic syndromes of viral hepatitis.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO5	Define cirrhosis and describe its types, etiopathogenesis, morphologic characteristics, clinical features & complications.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO5	Describe morphology of alcoholic cirrhosis.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO5	Explain types & etiopathogenesis of jaundice.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO5	Describe characteristic features of pre-hepatic, hepatic & post-hepatic jaundice.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	II	

CO5	Elucidate types, etiopathogenesis, morphology, clinical features & complications of cholecystitis.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO5	Explain types, etiopathogenesis, morphology, clinical features & complications of pancreatitis.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	II	V-IJ
CO5	Discribe types, etiopathogenesis, diagnosis & complications of diabetes mellitus.	CC	MK	KH	L,BL	P-VIVA,TH	F&S	II	
Topic 16									
Amrāz A'za' Ṭabī'iyya - III (امراض كليه و مثانہ) Amrāz Kulya & Masāna									
(Lecture : 10 hours, Non lecture: 5 hours)									
CO2,CO3,CO4	Explain Mahiyat of Zu'f Kulya.	CC	DK	KH	FC	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Nuqṣān Fi'l & Buṭlān Fi'l of Kulya.	CC	NK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Asbāb & Alāmāt of Zu'f Kulya.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Elucidate Mahiyat & types of Zayābīṭus.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	II	
CO5	Elucidate Asbāb & Tashkhīṣ of Zayābīṭus.	CC	NK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Mahiyat & Asbāb of Ḥaṣāt Kulya & Masāna.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Tashkhīṣ of Ḥaṣāt Kulya & Masāna.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Mahiyat of Waram Masāna.	CK	MK	K	L,DIS	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Asbāb & Tashkhīṣ of Waram Masāna.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Define Taqīrūl Bawl and describe its Mahiyat.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	

CO2,CO3,CO4	Describe Asbāb & Tashkhīṣ of Taqṭīrul Bawl.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO5	Describe etiopathogenesis, morphology & clinical features of acute, crescentic & chronic glomerulonephritis.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	II	
CO5	Describe briefly nephritic syndrome, nephrotic syndrome & renal failure.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	II	
CO5	Explain types, etiopathogenesis, clinical features & complications of renal stones.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	II	
Topic 17									
امراض اعضاء تناسل Amrāz A'za' Tānāsul (Lecture : 2 hours, Non lecture: 2 hours)									
CO2,CO3,CO4	Explain types, etiopathogenesis, clinical features & complications of renal stones.	CK	MK	K	L,DIS	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Tashkhīṣ of Zu'f Bāh.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Explain Mahiyat & Asbāb of Jarayān.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Explain Alāmāt & Tashkhīṣ of Jarayān.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Discuss Mahiyat of 'Uqr.	CC	DK	KH	L,BL	P-VIVA,TH	F&S	II	V-QAN
CO2,CO3,CO4	Describe Asbāb & Alāmāt of 'Uqr.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	II	V-QAN
CO2,CO3,CO4	Describe Mahiyat of Sayalānur Raḥim.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
CO2,CO3,CO4	Describe Asbāb & Alāmāt of Sayalānur Raḥim.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	II	
Topic 18									
امراض اعضاء حيوانية Amrāz A'za' Ḥaywāniyya - I (امراض قلب و عروق) Amrāz Qalb & 'Urūq (Lecture : 14 hours, Non lecture: 6 hours)									
CO2,CO3,CO4	Describe types & Mahiyat of Khafaqān.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	

CO2,CO3,CO4	Describe Asbāb & Tashkhīṣ of Khafaqān.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Explain Tashkhīṣ of Sū'ī Mizāj Qalb.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Describe Mahiyat & types of Ghashī.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Describe Asbāb & Tashkhīṣ of Ghashī.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Explain etiopathogenesis of Ischaemic Heart Disease (IHD) and describe consequences of myocardial ischaemia.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Describe characteristic features of variants of angina pectoris.	CC	MK	KH	L&PPT,EDU	P-VIVA,TH	F&S	III	
CO5	Elucidate risk factors, etiopathogenesis & morphology of Myocardial Infarction (MI).	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Classify myocardial infarcts and describe diagnosis of myocardial infarction.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Define endocarditis and describe types, etiopathogenesis, morphology, clinical manifestations & complications of infective endocarditis.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Define rheumatic fever and describe etiopathogenesis, morphology, clinical features & complications of rheumatic heart disease.	CC	DK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Explain causes, morphologic features and effects of mitral & aortic stenosis and insufficiency.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Describe types, causes & mechanism of heart failure.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Describe types, causes & morphology of pericarditis.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	

CO5	Explain types, etiopathogenesis, vascular pathology & complications of hypertension.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Enlist patterns of arteriosclerosis and describe risk factors, pathogenesis, morphology & clinical effects of atherosclerosis.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Describe types, causes, pathogenesis, morphology & effects of aneurism and dissection.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
Topic 19									
امراض اعضاء حيوانية Amrāz A'za' Ḥaywāniyya - II (امراض رئة Amrāz Ri'a)									
(Lecture : 13 hours, Non lecture: 6 hours)									
CO2,CO3,CO4	Define Nazla & Zukām.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Describe types & Asbāb of Nazla & Zukām.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Explain Mahiyat & types of Waram Ḥalq.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Explain Asbāb & Alāmāt of Waram Ḥalq.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Elucidate Mahiyat & types of Rabw & Buhr.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Elucidate Asbāb & Tashkhīṣ of Rabw & Buhr.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Explain Mahiyat & types of Su'āl & Surfa.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Explain Asbāb & Tashkhīṣ of Su'āl & Surfa.	CC	MK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Describe Mahiyat of Zātur Ri'a.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	III	
CO2,CO3,CO4	Describe Asbāb & Alāmāt of Zātur Ri'a.	CC	DK	KH	L&GD	P-VIVA,TH	F&S	III	

CO5	Define chronic bronchitis and explain its etiopathogenesis, morphology & clinical features.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Define emphysema and explain its types, etiopathogenesis, morphology & clinical features.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Define bronchial asthma and explain its types, etiopathogenesis, morphology & clinical features.	CC	MK	KH	L&PPT,SIM	P-VIVA,TH	F&S	III	
CO5	Define bronchiectasis and explain its types, etiopathogenesis, morphology, clinical features & complications.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	
CO5	Classify pneumonia and describe etiopathogenesis, morphology, clinical features & complications of community acquired bacterial and viral pneumonia.	CC	MK	KH	L&PPT	P-VIVA,TH	F&S	III	

List of Practicals (Term and Hours)

PRACTICALS (Marks-100)			
S.No	List of Topics	Term	Hours
1	Lab Ethics	1	2
2	Haematology	1	52
3	تشخيص سوء مزاج Tashkhīṣ of Sū'i Mizāj	2	20
4	معائنه نبض Mu'āyana' Nabz	2	6
5	معائنه قاروره Mu'āyana' Qārūra	2	42
6	معائنه براز Mu'āyana' Barāz	2	6
7	Biochemistry	3	18
8	Sputum Examination	3	12
9	Gram staining	3	12
10	Histopathology	3	12

Table 4: Learning objectives (Practical)

A4 Course outcome	B4 Learning Objective (At the end of the session, the students should be able to)	C4 Domain/ sub	D4 Must to know / desirable to know / Nice to know	E4 Level Does/ Shows how/ Knows how/ Know	F4 T-L method	G4 Assessment (Refer abbreviations)	H4 Formative/ summative	I4 Term	K4 Integration
Topic 1									
Lab Ethics									
CO7	Follow safety protocol in the laboratory.	PSY-SET	MK	SH	L	QZ	F	I	
CO7	Demonstrate SOPs of Lab cleanliness with ethical values.	AFT-REC	MK	SH	L	QZ	F	I	
CO7	Demonstrate segregation and disposal of waste in accordance with standard guidelines.	PSY-SET	MK	SH	L	QZ	F	I	
Topic 2									
Haematology									
CO7	Determine total leucocyte count by visual Haemocytometer method & interpret clinically.	PSY-SET	MK	SH	PT	OSPE	F&S	I	
CO7	Determine RBC count by visual Haemocytometer method & interpret clinically.	PSY-SET	MK	SH	PT	OSPE	F&S	I	
CO7	Determine platelet count by visual Haemocytometer method & interpret clinically.	PSY-SET	MK	SH	PT	OSPE	F&S	I	
CO7	Determine absolute eosinophil count by visual Haemocytometer method & interpret clinically.	PSY-SET	MK	KH	PT	OSPE	F&S	I	

CO7	Prepare and stain peripheral blood smear.	PSY-SET	MK	SH	PT	P-PRF	F&S	I	
CO7	Identify and differentiate various blood cells under microscope with their clinical interpretation.	PSY-SET	MK	SH	PT	P-PRF	F&S	I	
CO7	Demonstrate Erythrocyte Sedimentation Rate and describe its clinical application.	PSY-SET	MK	SH	PT,D_L	OSPE	F&S	I	
CO7	Demonstrate Packed Cell Volume and explain its clinical significance.	PSY-SET	MK	SH	PT,D_L	OSPE	F&S	I	
CO7	Calculate and interpret RBC indices (MCV, MCH, MCHC).	PSY-SET	MK	SH	PT	P-VIVA	F&S	I	
CO7	Measure bleeding time & clotting time.	PSY-SET	MK	SH	PT	OSPE	F&S	I	
CO7	Describe haematological investigations by haematology analyzer.	CC	MK	SH	PT	P-VIVA	F&S	I	
CO7	Collect various types of blood samples.	PSY-SET	MK	SH	PT	P-PRF	F	I	
CO7	Communicate & assure the patient while collecting the blood sample	AFT-RES	MK	SH	PT	P-VIVA	F	I	
CO7	Identify various types of vacutainers.	CAN	MK	SH	PT	P-VIVA	F	I	
CO7	Describe the principles of haematological parameters.	CC	MK	KH	PT	P-VIVA	F	I	
CO7	Estimate Haemoglobin by Cyanmethaemoglobin Method (Drabkin's method) and interpret clinically.	PSY-SET	MK	SH	PT	OSPE	F&S	I	
Topic 3									
تشخیص سو مزاج Tashkhīṣ of Sū'i Mizāj									
CO3,CO4	Diagnose Sū'i Mizāj Sāda	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	
CO3,CO4	Diagnose Sū'i Mizāj Māddī.	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	

CO3,CO4	Diagnose Sū'i Mizāj Damawī.	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	
CO3,CO4	Diagnose Sū'i Mizāj Şafrāwī.	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	
CO3,CO4	Diagnose Sū'i Mizāj Balghamī.	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	
CO3,CO4	Diagnose Sū'i Mizāj Sawdāwī.	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	
CO4	Diagnose Imtilā' bi Ḥasbi'l Aw'iya by their 'Alāmāt.	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	
CO4	Diagnose Imtilā' bi Ḥasbi'l Quwwa by their 'Alāmāt.	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	
CO4	Diagnose Sū'i Mizāj Qalb using 'Alāmāt.	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	
CO4	Diagnose Sū'i Mizāj Dimāgh using 'Alāmāt.	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	
CO4	Diagnose Sū'i Mizāj Kabid using 'Alāmāt.	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	
CO4	Diagnose Sū'i Mizāj Mi'da using 'Alāmāt.	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	
CO3,CO4	Diagnose Sū'i Mizāj Kulya using 'Alāmāt.	PSY-SET	MK	SH	PT,CD	P-VIVA	F	II	
Topic 4									
معائنہ نبض Mu'āyana' Nabz									
CO4	Examine Nabz according to Sharā'it of its Mu'āyana'.	PSY-SET	MK	SH	PT	QZ	F	II	
CO4	Observe and interpret Miqdār of Nabz.	PSY-SET	MK	SH	PT	P-VIVA	F	II	
CO4	Observe and interpret Kayfiyat Qara' of Nabz.	PSY-SET	MK	SH	PT	P-VIVA	F	II	
CO4	Observe and interpret Zamāna' Ḥarakat of Nabz.	PSY-SET	MK	SH	PT	P-VIVA	F	II	
CO4	Observe and interpret Qiwām Āla of Nabz.	PSY-SET	MK	SH	PT	P-VIVA	F	II	
CO4	Observe and interpret Zamāna' Sukūn of Nabz.	PSY-SET	MK	SH	PT	P-VIVA	F	II	
CO4	Observe and interpret Malmas of Nabz.	PSY-SET	MK	SH	PT	P-VIVA	F	II	

CO4	Observe and interpret Khalā-o-Imtilā' of Nabz.	PSY-SET	MK	SH	PT	P-VIVA	F	II	
CO4	Observe and interpret Istiwā'-o-Ikhtilāf of Nabz.	PSY-SET	MK	SH	PT	P-VIVA	F	II	
Topic 5									
معاينة قارورة Mu'āyana' Qārūra									
CO4,CO7	Explain & communicate the method of collection of Bawl sample according to Sharā'iṭ of Mu'āyana' Qārūra.	AFT-RES	MK	SH	PT	P-VIVA	F&S	II	
CO4,CO7	Examine Bawl in accordance with Alwān & interpret clinically.	PSY-SET	MK	SH	PT	P-VIVA	F&S	II	
CO4,CO7	Examine Bawl in accordance with Qiwām & interpret clinically.	PSY-SET	MK	SH	PT	P-VIVA	F&S	II	
CO4,CO7	Examine Bawl in accordance with Safai & Kudūrat and interpret clinically.	PSY-SET	MK	SH	PRA	P-VIVA	F&S	II	
CO4,CO7	Examine Bawl in accordance with Rā'iḥa & interpret clinically.	PSY-SET	MK	SH	PT	P-VIVA	F&S	II	
CO4,CO7	Examine Bawl in accordance with Zabad & interpret clinically.	PSY-SET	MK	SH	PT	P-VIVA	F&S	II	
CO4,CO7	Examine Bawl in accordance with Rasūb & interpret clinically.	PSY-SET	MK	SH	PT	P-VIVA	F&S	II	
CO4,CO7	Examine Bawl in accordance with Miqdār & interpret clinically.	PSY-SET	MK	SH	PRA	P-VIVA	F&S	II	
CO4,CO7	Explain & communicate the method of collection of different urine samples.	AFT-RES	MK	SH	PT	P-VIVA	F&S	II	
CO4,CO7	Perform physical examination of urine and interpret clinically.	PSY-SET	MK	SH	PT	OSPE	F&S	II	
CO4,CO7	Perform chemical examination of urine and interpret clinically.	PSY-SET	MK	SH	PT	OSPE	F&S	II	

CO4,CO7	Perform microscopic examination of urine and interpret clinically.	PSY-SET	MK	SH	PT	OSPE	F&S	II	
CO3,CO7	Describe urinalysis by urine analyzer.	CC	MK	SH	PT	P-PRF	F&S	II	
Topic 6									
معاينة براز Mu‘āyana’ Barāz									
CO4,CO7	Interpret Dalā’il Barāz with their clinical significance.	CAP	MK	KH	PT	P-POS	F	II	
CO4,CO7	Examine Barāz according to diagnostic parameters.	PSY-SET	MK	SH	PT	P-VIVA	F	II	
CO4,CO7	Perform physical examination of stool and interpret clinically.	PSY-SET	MK	SH	PT	OSPE	F	II	
CO4,CO7	Perform chemical examination of stool and interpret clinically.	PSY-SET	MK	SH	PT	OSPE	F	II	
CO4,CO7	Perform microscopic examination of stool and interpret clinically.	PSY-SET	MK	SH	PT	OSPE	F	II	
Topic 7									
Biochemistry									
CO7	Interpret derangement in blood sugar levels and correlate clinically.	CAN	MK	KH	PT,LRI	P-PRF	F	III	
CO7	Interpret derangement in liver function test and correlate clinically.	CAN	MK	KH	PT,LRI	P-PRF	F	III	
CO7	Interpret derangement in renal function test and correlate clinically.	CAN	MK	KH	PT,LRI	P-PRF	F	III	
CO7	Interpret derangement in lipid profile test and correlate clinically.	CAN	MK	KH	PT,LRI	P-VIVA	F	III	
CO7	Interpret derangement in thyroid profile test and correlate clinically.	CAN	MK	KH	PRA	P-VIVA	F	III	

CO7	Interpret derangement in cardiac markers and correlate clinically.	CAN	MK	KH	PT,LRI	P-VIVA	F	III	
CO7	Describe biochemical parameters by biochemistry analyzer.	CC	MK	KH	PT,LRI	P-VIVA	F	III	
Topic 8 Sputum Examination									
CO7	Prepare and stain sputum smear.	PSY-SET	MK	SH	PT	P-VIVA	F	III	
CO7	Identify acid fast bacilli in sputum smear under microscope.	PSY-SET	MK	SH	PRA	P-VIVA	F	III	
Topic 9 Gram staining									
CO7	Perform gram staining and identify gram positive and gram negative bacteria.	PSY-SET	MK	SH	PT	M-POS,OSPE	F	III	
Topic 10 Histopathology									
CO7	Identify and interpret histopathological slides of fatty liver, necrosis, tubercular granuloma, dysplasia, atherosclerosis, pneumonia, COPD, cirrhosis, peptic ulcer, glomerulonephritis.	PSY-SET	MK	SH	PT,CD	P-PRF	F&S	III	
Record book									
CO4,CO7	Maintain observations and results of practicals in record book	PSY-SET	MK	SH	PT	RK	F&S		
CO4,CO7	Maintain clinical observations in record book	PSY-SET	MK	SH	PT	RK	F&S		

Table 4 A: List of Practical

S.No	Name of practical	Term	Activity	Practical hrs
1	Lab Ethics	1	Laboratory safety, cleanliness protocol and disposal of biomedical waste	2
2	Haematology	1	a) Haemoglobin estimation b) Total Leucocyte Count c) RBC Count d) Platelet Count e) Absolute Eosinophil Count f) Peripheral blood smear & staining technique g) Differential Leucocyte Count h) ESR i) Haematocrit/PCV j) RBC Indices (MCV, MCH, MCHC) k) Bleeding Time & Clotting Time	52
3	تشخيص سوء مزاج Tashkhīṣ of Sū'i Mizāj	2	Practical training of diagnosis of Sū'i Mizāj.	20
4	معائنہ نبض Mu'āyana' Nabz	2	Practical training of Nabz	6
5	معائنہ قارورہ Mu'āyana' Qārūra	2	a) Practical training of Mu'āyana' Qārūra by Dalā'il Bawl b) Physical, Chemical & Microscopic Examination of Urine	42
6	معائنہ براز Mu'āyana' Barāz	2	Physical, Chemical & Microscopic Examination of Stool	6
7	Biochemistry	3	Interpretation of Lab reports a) Blood Sugar b) Liver Function Test c) Renal Function Test d) Lipid Profile e) Thyroid Profile f) Cardiac Markers	18
8	Sputum Examination	3	Staining of Acid Fast Bacilli	12
9	Gram staining	3	Gram staining & Demonstration of morphology of gram positive and gram negative bacteria	12
10	Histopathology	3	Examination of Histopathological Slides	12
Total Hrs				182

Activity

CO	Topic name	Activity Details	Hours#
CO1,CO2	Describe Darajāt (Madārij) Şihhat & Maraz.	Inquiry-Based Learning: Starts from a place of questioning. Students may spontaneously ask questions or be prompted to ask questions about a Darajāt (Madārij) Şihhat & Maraz. They might think and collaborate within their groups to find answer why different levels of diseases are important with respect to diagnosis, prognosis and management.	1
CO1,CO2,CO3	Ajnās Amrāz	Kinesthetic Learning Students are expected to make or create images of e.g. Tafarruq Ittişāl, Awrām & Busūr. They may be asked to make Poster, model, Chart or Video Clip of the pathophysiology. Such activities can be part of their learning the subject concepts with clarity.	1
CO1,CO4	Adilla' Nabz	Self-directed learning By this method student will take responsibility for learning Nabz after concept explanation. As a part of learning students are needed to acquire many essential skills by these methods.	1
CO6	Microbiology	Blended Learning:- Blended learning is a mix method. Classroom lecture and technology together. Various online tools, apps can be added in the classroom activities. Images of microbes, their motility, structural characteristics may be explained by this method effectively.	1
CO5	Inflammation	Edutainment: A combination of education and entertainment is helpful in maintaining students' interests, by using various methods of teaching such as videos, Power Point slides, demonstrations, discussions, etc. Here inflammation may be simulated with defence army, injurious agent as enemy and mediators as media etc. Similarly, it may be correlated with game between two sports team.	1
# Hours indicated are included in calculations of Table 3 and 4			

Table 5- Teaching learning method

Sr No	Teaching learning methods in the course	No of Activities
1	Lecture	97
2	Lecture with Power point presentation	75
3	Lecture & Group Discussion	92
4	Lecture with Video clips	2
5	Discussions	29
6	Brainstorming	2
7	Inquiry-Based Learning	2
8	PBL	6
9	CBL	3
10	Project-Based Learning	1
11	TBL	3
12	Flipped classroom	4
13	Blended Learning	9
14	Edutainment	2
15	ECE	1
16	Simulation	2
17	Role plays	1
18	Self-directed learning	3
19	Kinesthetic Learning	4
20	Library Session	1
21	Peer learning	2
22	Symposium	6
23	Tutorial	9
24	Demonstration	5

6 A-Number of Papers and Marks Distribution

Subject Code	Papers	Theory	Practical/Clinical Assessment					Grand Total
			Practical	Viva	Elective	IA	Sub Total	
UNIUG-MA	2	200	100	30	-	20	150	350

6 B - Scheme of Assessment (formative and Summative)

PROFESSIONAL COURSE	DURATION OF PROFESSIONAL COURSE		
	First Term (1-6 Months)	Second Term (7-12 Months)	Third Term (13-18 Months)
Second	3 PA & First TT	3 PA & Second TT	3 PA & UE**

PA: Periodical Assessment; **TT:** Term Test; **UE:** University Examinations.
**** University Examination shall be on entire syllabus**

6 C - Calculation Method for Internal Assessment Marks (20 Marks)

Term	Periodical Assessment*				Term Test**	Term Assessment	
	A	B	C	D	E	F	G
	1 (20)	2 (20)	3 (20)	Average (A+B+C/3) (20)	Term Test (MCQ+SAQ+LAQ and Practical) (Converted to 20)	Sub Total	Term Assessment
First						D+E	D+E /2
Second						D+E	D+E /2
Third					NIL		D
Final IA	Average of Three Term Assessment Marks as Shown in 'G' Column						
	<p>* Select an Evaluation Methods which is appropriate for the objectives of Topics from the Table 6 D. Convert it to 20 marks.</p> <p>** Conduct Theory (100 Marks) (MCQ (20*1 Marks), SAQ (8*5), LAQ (4*10)) and Practical (100 Marks) Then convert to 20 Marks.</p>						

6 D - Evaluation Methods for Periodical Assessment

S. No.	Evaluation Methods
1.	Practical / Clinical Performance
2.	Viva Voce, MCQs, MEQ (Modified Essay Questions/Structured Questions)
3.	Open Book Test (Problem Based)
4.	Summary Writing (Research Papers/ Samhitas)
5.	Class Presentations; Work Book Maintenance
6.	Problem Based Assignment
7.	Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OPSE), Mini Clinical Evaluation Exercise (Mini-CEX), Direct Observation of Procedures (DOP), Case Based Discussion (CBD)
8.	Extra-curricular Activities, (Social Work, Public Awareness, Surveillance Activities, Sports or Other Activities which may be decided by the department).
9.	Small Project
10.	Activities Indicated in Table 3 - Column G3 as per Indicated I, II or III term in column I3 & I4.

6 E Question Paper Pattern

II PROFESSIONAL B.U.M.S EXAMINATIONS UNIUG-MA PAPER-1 Time: 3 Hours Maximum Marks: 100 INSTRUCTIONS: All questions compulsory				
		Number of Questions	Marks per question	Total Marks
Q 1	MULTIPLE CHOICE QUESTIONS (MCQ)	20	1	20
Q 2	SHORT ANSWER QUESTIONS (SAQ)	8	5	40
Q 3	LONG ANSWER QUESTIONS (LAQ)	4	10	40
				100

Similar for Paper II

6 F Distribution of theory examination

Sr.No	A List of Topics	B Term	C Marks	MCQ (1 Mark)	SAQ (5 Marks)	LAQ (10 Marks)
1	علم الاحوال 'Ilmul Aḥwāl	1	10	Yes	Yes	No
2	علم الاسباب 'Ilmul Asbāb	1	20	Yes	Yes	Yes
3	علم المعلومات 'Ilmul 'Alāmāt	2	15	Yes	No	Yes
4	تشیخ امراض کے ذرائع Methods of Tashkhiṣ of Amrāz	2	10	Yes	Yes	No
5	Microbiology	2	15	Yes	Yes	No
6	امراض اعضاء نفسانیہ Amrāz A'za' Nafsāniyya امراض امراض راس Amrāz Ra's	3	10	Yes	No	Yes
7	امراض اعضاء ظاہرہ Amrāz A'za' Zāhira	3	10	Yes	Yes	No
8	امراض متفرقة Other Amrāz	3	10	Yes	No	Yes
Total Marks			100			

6 F Distribution of theory examination

Sr.No	A List of Topics	B Term	C Marks	MCQ (1 Mark)	SAQ (5 Marks)	LAQ (10 Marks)
9	Cellular responses to Stress & Injury	1	10	Yes	Yes	No
10	Inflammation & Repair	1	5	Yes	Yes	No
11	Haemodynamic Disorders	1	5	Yes	Yes	No
12	Diseases of Immune System	1	5	Yes	No	No
13	Neoplasia	1	5	Yes	No	No

14	امراض اعضاء طبيعیه Amrāz A'za' Ṭabī'iyya - I امراض دهن، معدره و امعاء Amrāz Dahan, Mi'da & Am'ā'	2	10	Yes	No	Yes
15	امراض اعضاء طبيعیه Amrāz A'za' Ṭabī'iyya - II امراض کبد، مراره و بانقراس Amrāz Kabid, Marāra & Bānqarās	2	15	Yes	No	Yes
16	امراض اعضاء طبيعیه Amrāz A'za' Ṭabī'iyya - III امراض کلیه و مثانه Amrāz Kulya & Masāna	2	10	Yes	Yes	No
17	امراض اعضاء تناسل Amrāz A'za' Tānāsul	2	5	Yes	Yes	No
18	امراض اعضاء حیوانیه Amrāz A'za' Ḥaywāniyya - I امراض قلب و عروق Amrāz Qalb & 'Urūq	3	15	Yes	Yes	Yes
19	امراض اعضاء حیوانیه Amrāz A'za' Ḥaywāniyya - II امراض ریه Amrāz Ri'a	3	15	Yes	Yes	Yes
Total Marks			100			

6 G Blue print of paper I & II

Paper No: 1		
Question No	Type of Question	Question Paper Format
Q1	<p>Multiple choice Questions 20 Questions 1 mark each All compulsory</p> <p>Must know part - 15 MCQ Desirable to know - 3 MCQ Nice to know part - 2 MCQ</p>	<ol style="list-style-type: none"> 1. تشخیص امراض کے ذرائع Methods of Tashkhīṣ of Amrāz / علم الاحوال 'Ilmul Aḥwāl 2. تشخیص امراض کے ذرائع Methods of Tashkhīṣ of Amrāz / علم الاحوال 'Ilmul Aḥwāl 3. تشخیص امراض کے ذرائع Methods of Tashkhīṣ of Amrāz / علم الاحوال 'Ilmul Aḥwāl 4. تشخیص امراض کے ذرائع Methods of Tashkhīṣ of Amrāz / علم الاحوال 'Ilmul Aḥwāl 5. تشخیص امراض کے ذرائع Methods of Tashkhīṣ of Amrāz / علم الاحوال 'Ilmul Aḥwāl 6. علم الاسباب 'Ilmul Asbāb / امراض اعضاء نفسانیه Amrāz A'za' Nafsāniyya - امراض راس Amrāz Ra's 7. علم الاسباب 'Ilmul Asbāb / امراض اعضاء نفسانیه Amrāz A'za' Nafsāniyya - امراض راس Amrāz Ra's

		<p>8. علم الاسباب 'Ilmul Asbāb / امراض اعضاء نفسانيه Amrāz A'za' Nafsāniyya - امراض راس Amrāz Ra's</p> <p>9. علم الاسباب 'Ilmul Asbāb / امراض اعضاء نفسانيه Amrāz A'za' Nafsāniyya - امراض راس Amrāz Ra's</p> <p>10. علم الاسباب 'Ilmul Asbāb / امراض اعضاء نفسانيه Amrāz A'za' Nafsāniyya - امراض راس Amrāz Ra's</p> <p>11. علم العلامات 'Ilmul 'Alāmāt / امراض اعضاء ظاهره Amrāz A'za' Zāhira</p> <p>12. علم العلامات 'Ilmul 'Alāmāt / امراض اعضاء ظاهره Amrāz A'za' Zāhira</p> <p>13. علم العلامات 'Ilmul 'Alāmāt / امراض اعضاء ظاهره Amrāz A'za' Zāhira</p> <p>14. علم العلامات 'Ilmul 'Alāmāt / امراض اعضاء ظاهره Amrāz A'za' Zāhira</p> <p>15. علم العلامات 'Ilmul 'Alāmāt / امراض اعضاء ظاهره Amrāz A'za' Zāhira</p> <p>16. Microbiology / امراض متفرقه Other Amrāz</p> <p>17. Microbiology / امراض متفرقه Other Amrāz</p> <p>18. Microbiology / امراض متفرقه Other Amrāz</p> <p>19. Microbiology / امراض متفرقه Other Amrāz</p> <p>20. Microbiology / امراض متفرقه Other Amrāz</p>
Q2	<p>Short answer Questions Eight Questions 5 Marks Each All compulsory</p> <p>Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know</p>	<p>1. علم الاحوال 'Ilmul Aḥwāl</p> <p>2. علم الاسباب 'Ilmul Asbāb</p> <p>3. تفخيص امراض كذرائع Methods of Tashkhīṣ of Amrāz</p> <p>4. تفخيص امراض كذرائع Methods of Tashkhīṣ of Amrāz</p> <p>5. Microbiology</p> <p>6. Microbiology</p> <p>7. امراض اعضاء ظاهره Amrāz A'za' Zāhira</p> <p>8. امراض اعضاء ظاهره Amrāz A'za' Zāhira</p>
Q3	<p>Long answer Questions Four Questions 10 marks each All compulsory</p> <p>All questions on must know. No Questions on Nice to know and Desirable to know</p>	<p>1. علم الاسباب 'Ilmul Asbāb</p> <p>2. علم العلامات 'Ilmul 'Alāmāt</p> <p>3. امراض اعضاء نفسانيه Amrāz A'za' Nafsāniyya امراض راس Amrāz Ra's</p> <p>4. امراض متفرقه Other Amrāz</p>
Paper No: 2		
Question No	Type of Question	Question Paper Format
Q1	<p>Multiple choice Questions 20 Questions 1 mark each</p>	<p>1. Diseases of Immune System/ Cellular responses to Stress & Injury / امراض اعضاء تناسل Amrāz A'za' Tānāsul</p>

<p>All compulsory</p> <p>Must know part - 15 MCQ</p> <p>Desirable to know - 3 MCQ</p> <p>Nice to know part - 2 MCQ</p>	<ol style="list-style-type: none"> 2. Diseases of Immune System / Cellular responses to Stress & Injury / امراض اعضاء تناسل Amrāz A'za' Tānāsul 3. Diseases of Immune System / Cellular responses to Stress & Injury / امراض اعضاء تناسل Amrāz A'za' Tānāsul 4. Diseases of Immune System / Cellular responses to Stress & Injury / امراض اعضاء تناسل Amrāz A'za' Tānāsul 5. Diseases of Immune System / Cellular responses to Stress & Injury / امراض اعضاء تناسل Amrāz A'za' Tānāsul 6. امراض اعضاء حيوانية Amrāz A'za' Ḥaywāniyya - I امراض قلب وعروق Amrāz Qalb & 'Urūq / Inflammation & Repair / Neoplasia 7. امراض اعضاء حيوانية Amrāz A'za' Ḥaywāniyya - I امراض قلب وعروق Amrāz Qalb & 'Urūq / Inflammation & Repair / Neoplasia 8. امراض اعضاء حيوانية Amrāz A'za' Ḥaywāniyya - I امراض قلب وعروق Amrāz Qalb & 'Urūq / Inflammation & Repair / Neoplasia 9. امراض اعضاء حيوانية Amrāz A'za' Ḥaywāniyya - I امراض قلب وعروق Amrāz Qalb & 'Urūq / Inflammation & Repair / Neoplasia 10. امراض اعضاء حيوانية Amrāz A'za' Ḥaywāniyya - I امراض قلب وعروق Amrāz Qalb & 'Urūq / Inflammation & Repair / Neoplasia 11. امراض اعضاء حيوانية Amrāz A'za' Ḥaywāniyya - II امراض رئوية Amrāz Ri'a / امراض اعضاء طبيعية Amrāz A'za' Ṭabī'iyya - II امراض كبد، مرارة وبانقراس Amrāz Kabid, Marāra & Bānqarās / Haemodynamic Disorders 12. امراض اعضاء حيوانية Amrāz A'za' Ḥaywāniyya - II امراض رئوية Amrāz Ri'a / امراض اعضاء طبيعية Amrāz A'za' Ṭabī'iyya - II امراض كبد، مرارة وبانقراس Amrāz Kabid, Marāra & Bānqarās / Haemodynamic Disorders 13. امراض اعضاء حيوانية Amrāz A'za' Ḥaywāniyya - II امراض رئوية Amrāz Ri'a / امراض اعضاء طبيعية Amrāz A'za' Ṭabī'iyya - II امراض كبد، مرارة وبانقراس Amrāz Kabid, Marāra & Bānqarās / Haemodynamic Disorders
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		<p>14. 14. Amrāz A'za' Ḥaywāniyya - II Amrāz Ri'a / Amrāz A'za' Ṭabī'iyya - II Amrāz Kabid, Marāra & Bānqarās / Haemodynamic Disorders</p> <p>15. 15. Amrāz A'za' Ḥaywāniyya - II Amrāz Ri'a / Amrāz A'za' Ṭabī'iyya - II Amrāz Kabid, Marāra & Bānqarās / Haemodynamic Disorders</p> <p>16. 16. Amrāz A'za' Ṭabī'iyya - III Amrāz Kulya & Masāna / Amrāz A'za' Ṭabī'iyya - I Amrāz Dahan, Mi'da & Am'ā'</p> <p>17. 17. Amrāz A'za' Ṭabī'iyya - III Amrāz Kulya & Masāna / Amrāz A'za' Ṭabī'iyya - I Amrāz Dahan, Mi'da & Am'ā'</p> <p>18. 18. Amrāz A'za' Ṭabī'iyya - III Amrāz Kulya & Masāna / Amrāz A'za' Ṭabī'iyya - I Amrāz Dahan, Mi'da & Am'ā'</p> <p>19. 19. Amrāz A'za' Ṭabī'iyya - III Amrāz Kulya & Masāna / Amrāz A'za' Ṭabī'iyya - I Amrāz Dahan, Mi'da & Am'ā'</p> <p>20. 20. Amrāz A'za' Ṭabī'iyya - III Amrāz Kulya & Masāna / Amrāz A'za' Ṭabī'iyya - I Amrāz Dahan, Mi'da & Am'ā'</p>
<p>Q2</p>	<p>Short answer Questions Eight Questions 5 Marks Each All compulsory</p> <p>Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know</p>	<p>1. Cellular responses to Stress & Injury</p> <p>2. Cellular responses to Stress & Injury</p> <p>3. Inflammation & Repair</p> <p>4. Haemodynamic Disorders</p> <p>5. Amrāz A'za' Ṭabī'iyya - III Amrāz Kulya & Masāna</p> <p>6. Amrāz A'za' Tānāsul</p>

		<p>7. امراض اعضاء حيوانيه Amrāz A'za' Ḥaywāniyya - I امراض قلب وعروق Amrāz Qalb & 'Urūq</p> <p>8. امراض اعضاء حيوانيه Amrāz A'za' Ḥaywāniyya - II امراض رئة Amrāz Ri'a</p>
Q3	<p>Long answer Questions Four Questions 10 marks each All compulsory</p> <p>All questions on must know. No Questions on Nice to know and Desirable to know</p>	<p>1. امراض اعضاء طبيعيه Amrāz A'za' Ṭabī'iyya - I امراض دهن، معدة وامعاء Amrāz Dahan, Mi'da & Am'ā'</p> <p>2. امراض اعضاء طبيعيه Amrāz A'za' Ṭabī'iyya - II امراض كبد، مراره وبانقراس Amrāz Kabid, Marāra & Bānqarās</p> <p>3. امراض اعضاء حيوانيه Amrāz A'za' Ḥaywāniyya - I امراض قلب وعروق Amrāz Qalb & 'Urūq</p> <p>4. امراض اعضاء حيوانيه Amrāz A'za' Ḥaywāniyya - II امراض رئة Amrāz Ri'a</p>

6 H Distribution of Practical Exam

S.No	Heads	Marks
1	Haematology (any one from below) Total Leucocyte Count RBC Count Platelet Count Absolute Eosinophil Count Peripheral blood smear & staining technique Differential Leucocyte Count	20
2	Haematology (any one from below) Haemoglobin estimation ESR Haematocrit/PCV RBC Indices (MCV, MCH, MCHC) Bleeding Time & Clotting Time	15
3	Mu'āyana' Qārūra (Examination of Bawl according to any three Dalā'il Bawl)	10
4	Mu'āyana' Qārūra (any test from modern physical, chemical and microscopic examination of urine)	15
5	Spotting (any one from Histopathology slides of fatty liver, necrosis, tubercular granuloma, dysplasia, atherosclerosis, pneumonia, COPD, cirrhosis, peptic ulcer, glomerulonephritis)	10
6	Spotting (any one instrument from the following; Urine Analyzer, Centrifuge Machine, Colorimeter/ spectrophotometer, Ph Meter, Urinometer, Albuminometer, RBC Pipette, WBC Pipette, Improved Neubauer Chamber, Wintrobe Tube, Westergren Tube, Vacutainers, ESR Stand)	10
7	Interpretation of Biochemistry Lab Report (any one report from Blood Sugar, Liver Function Test, Renal Function Test)	10
8	Record book	10
9	Viva	30
10	Internal assessment	20
Total Marks		150

References Books/ Resources

S.No	Book	Resources
1	Al-Qanun fit Tibb	Ejaz Publishing House. Darya Ganj, New Delhi.
2	Tarjama w Sharḥ Kulliyate Qanun	Mohammad Kabiruddin. Malik Sons Publishers, Faislabad.
3	Mujazul Qanun	Kausar Chandpuri (Translator). NCPUL, HRD Ministry, Govt. of India.
4	Kulliyate Nafisi	Mohammad Kabiruddin (Translator). Idara Kitabush Shifa, New Delhi.
5	Tarjama Sharḥ Asbab	Khwaja Rizwan (Translator). Central Council for Research in Unani Medicine, New Delhi.
6	Iksir Azam	Mohammad Kabiruddin (Translator). Ejaz Publishing House, New Delhi.
7	Kitabul Murshid	Raziul Islam Nadwi (Translator). Anjuman Taraqqi Urdu Bureau. New Delhi.
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Abbreviations

Domains

S.No	Short form	Description
1	CK	Cognitive/Knowledge
2	CC	Cognitive/Comprehension
3	CAP	Cognitive/Application
4	CAN	Cognitive/Analysis
5	CS	Cognitive/Synthesis
6	CE	Cognitive/Evaluation
7	PSY-SET	Psychomotor/Set
8	PSY-GUD	Psychomotor/Guided response
9	PSY-MEC	Psychomotor/Mechanism
10	PSY-ADT	Psychomotor Adaptation
11	PSY-ORG	Psychomotor/Origination
12	AFT-REC	Affective/ Receiving
13	AFT-RES	Affective/Responding
14	AFT-VAL	Affective/Valuing
15	AFT-SET	Affective/Organization
16	AFT-CHR	Affective/ characterization

Teaching Learning Methods

S.No	Short form	Description
1	L	Lecture
2	L&PPT	Lecture with Power point presentation
3	L&GD	Lecture & Group Discussion
4	L_VC	Lecture with Video clips
5	DIS	Discussions
6	BS	Brainstorming
7	IBL	Inquiry-Based Learning
8	PBL	PBL
9	CBL	CBL
10	PrBL	Project-Based Learning
11	TBL	TBL
12	TPW	Team project work
13	FC	Flipped classroom
14	BL	Blended Learning
15	EDU	Edutainment
16	ML	Mobile learning
17	ECE	ECE
18	SIM	Simulation
19	RP	Role plays
20	SDL	Self-directed learning
21	PSM	Problem solving method
22	KL	Kinesthetic Learning
23	W	Workshops
24	GBL	Game-Based Learning
25	D-M	Demo on Model
26	LS	Library Session

27	PL	Peer learning
28	RLE	Real life experience
29	REC	Recitation
30	SY	Symposium
31	TUT	Tutorial
32	PER	Presentations
33	PT	Practical
34	X-Ray	X ray identification
35	CD	Case diagnosis
36	LRI	Lab report interpretation
37	DA	Drug analysis
38	D	Demonstration
39	D_BED	Demonstration bedside
40	D_L	Demonstration Lab
41	DG	Demonstration Garden
42	FV	Field visit
43	PRA	Practical

Assessments

S.No	Short form	Description
1	T-EMI	Theory extended matching item
2	T- EW	Theory Essay writing
3	T- MEQs	Theory MEQs –
4	T-CRQs	Theory CRQs-
5	T-CS	Theory case study-
6	T-OBT	Theory open book test –
7	P-VIVA	Practical Viva
8	P-REC	Practical Recitation
9	P-EXAM	Practical exam

10	PRN	Presentation
11	P-PRF	Practical Performance
12	P-SUR	Practical Survey
13	P-EN	Practical enact
14	P-RP	Practical Role play
15	P-MOD	Practical Model
16	P-POS	Practical Poster
17	P-CASE	Practical Case taking
18	P-ID	Practical identification
19	P-PS	Practical Problem solving
20	QZ	Quiz
21	PUZ	Puzzles
22	CL-PR	Class Presentation,
23	DEB	Debate
24	WP	Word puzzle
25	O-QZ	Online quiz
26	O-GAME	Online game-based assessment
27	M-MOD	Making of Model
28	M-CHT	Making of Charts
29	M-POS	Making of Posters
30	C-INT	Conducting interview
31	INT	Interactions
32	CR-RED	Critical reading papers
33	CR-W	Creativity Writing
34	C-VC	Clinical video cases,
35	SP	Simulated patients
36	PM	Patient management problems
37	CHK	Checklists
38	OSCE	OSCE
39	OSPE	OSPE,

40	Mini-CEX	Mini-CEX
41	DOPS	DOPS
42	CWS	CWS
43	RS	Rating scales
44	RK	Record keeping
45	COM	Compilations
46	Portfolios	Portfolios
47	Log book	Log book
48	TR	Trainers report
49	SA	Self-assessment
50	PA	Peer assessment
51	360D	360-degree evaluation
52	TT-Theory	Theory
53	PP-Practical	Practical
54	VV-Viva	Viva