COMPETENCY BASED DYNAMIC CURRICULUM FOR

2nd

BHMS PROFESSIONAL COURSES

(Applicable from Batch 2022-2023 onwards for 5 years or until further notification by National Commission for Homoeopathy whichever is earlier)

HOMOEOPATHY EDUCATION BOARD

NATIONAL COMMISSION FOR HOMOEOPATHY

MINISTRY OF AYUSH, GOVERNMENT OF INDIA

JAWAHAR LAL NEHRU BHARTIYA CHIKITSA AVUM HOMOEOPATHY ANUSANDHAN BHAVAN

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PREAMBLE TO THE COMPETENCY BASED DYNAMIC CURRICULUM

The National Commission for Homoeopathy (NCH) has undertaken major revisions in the educational regulations in the last year and has devised a new Syllabus to ensure that the student who completes the homoeopathic undergraduate course grows into a homoeopathic physician who is informed and capable of performing as a professional with competency to deliver services as required for addressing the health needs of the person and society at large. It is based on the premise that a correct adherence to homoeopathic principles and knowledge imparted will enable the physician to deliver results in all aspects of health, viz. preventive promotive, curative and rehabilitative.

There is a significant change in the approach and contents in the newly designed curriculum, with the intention of making it more coherent for the present and future needs of society. The designing of curriculum is based on the sound theories of educational methodology as applicable for the health professionals' education, and therefore, the outcomes are quite transparent and achievable.

The Homoeopathic Education Board (HEB) is obliged by the NCH Act 26 (b) to "develop a competency based dynamic curriculum for Homoeopathy at all levels in accordance with the regulations made under this Act, in such manner that it develops appropriate skill, knowledge, attitude, values and ethics among the graduates, postgraduate and super-specialty students and enables them to provide healthcare, to impart medical education and to conduct medical research".

Competency based medical education (CBME) has been around in the medical world for more than three decades. It has undergone several revisions and adaptations through this period which has placed the NCH in an advantageous position to learn from the varied experiences of curriculum formulation, implementation and assessment.

It should be emphasized that the switch over to CBME involves a sea change in the understanding of the processes and outcomes for which all stakeholders need to be adequately sensitized and the teachers trained to minimize the difficulties inevitable in any transition. The following four pillars need a special mention to grasp the nature of the change being brought about (Frank Jason R, et al 2010).

1. The focus is on ensuring that the end user of the health care services is benefited. Hence itis important that the outcomes of the training are defined in clear terms so that the teacher, the student and the community are aware of what can be expected from the training.

2. The second logical focus is on bringing the abilities of the physician to the level when the outcomes defined above are realized. This involves the definition of the competencies required in the discharge of various functions of the physician. This would involve certain domains of competencies to be achieved. Thiscoupling of the outcome and abilities leads automatically to the third pillar.

3. We have been used to consider all training as time bound as the BHMS course is 5 1/2 years duration. But when we realize that the rate of mastering different abilities would vary from student to student, we should de-emphasize the fixed period of training and instead lookat how the student can be helped to master the specific competency.

4. The fourth pillar becomes the student herself/himself. The entire education and training become learner centered and hence the teacher takes a great effort in defining the outcomes, competencies, teaching and learning methods and most important of all, assessment which is predominantly formative and hence intends to shape the evolving capacities of the learner.

While formulating the competency based dynamic curriculum (CBDC) for the homoeopathy undergraduate, we must bear in mind the central role that homoeopathy philosophy and the principle of holistic care plays in the therapeutic actions of the homoeopathic interventions. This is a distinctive aspect which has hardly received the attention it deserves despite Hahnemann's clear recommendations in the first six Aphorisms of the Organon. The revised syllabus has brought this change and the formulation of the competency-based curriculum provides an opportunity to incorporate this approach at all levels of teaching and training. The implications lie in bringing about a sensitive and effective integration (horizontal/vertical/spiral) of all aspects of the syllabus throughout the five and half years of the undergraduate course.

There are five compelling factors that form the fulcrum to drive the change (Harris Peter, et al, 2010):

1. Design of curriculum: This needs careful attention due to its novelty. Homoeopathy, as a holistic discipline resting on the foundations of philosophy, needs a holistic approach from the first year itself. Several novel situations will need to be envisaged and catered to. And yet, a number of issues will remain. This is the dynamic nature of the enterprise, and we must be prepared to accept the well-known adage: Change, the only constant!
2. Teacher training: Our teachers have discharged the role of information providers and the teaching-learning process calls for a transformation in the role of the teacher (Sidhu Navdeep S. et al2022). The future will need them to wear multiple hats and hence they will need to develop competencies viz. planner, facilitator, assessor, education manager, role model, etc, to be effective for these roles.
3. Assessment: Assessment practices must be based on a robust platform of validity, reliability, and objectivity, so that the tools of assessment blend fluidly with the academic flow. In this background, the focus is to shift the assessment approach from the monopoly of summative assessment to a significant allowance for formative assessment, which are supportive for learning and correction on-the-go.
4. Student issues: Along with the parents and the community, a significant re- orientation is called for while changing it from that of a 'last-minute' sprinter to a long range 'racer'! All stakeholders should be on the same page so that the processes can operate in a well-oiled manner. Glitches are to be expected when a largely 'rights' based social mind set has to shift gears to adopt a competency oriented one. Understanding that change needs patience and good will go a long way to make the latter orientation a way of life.
5. Systems: All educational systems from the colleges to universities need to incorporate the multiple changes within their systems. We are used to consider results as 'pass' and 'fail' with the latter carrying the stigma. While there is an expressed need to wish to cater to all categories of learners – fast, normal, slow – the need to bring about changes in the systems is not so readily accepted. The institutions need to develop as 'learning organisations' that spur the 'growth mind-set' of its members – the teachers, students, and all those who are in the loop of curricular or co-curricular management.

The HEB considers the CBDC as a work in progress. Considerable thoughts and efforts are invested into the design and planning of the curriculum. But as has been mentioned above, this is a pioneering work and would always benefit from suggestions that spring from critical thinking and reflection subsequent to sincere attempts in implementation.

The next sections provide details of operational clarity to implement the program. Training of teachers is the key component which will make all the difference. The NCH is committed to make it happen and the cooperation of all stakeholders is earnestly solicited.

References

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I - STEPS TAKEN TO FORMULATE HOMOEOPATHY CBDC MANUAL

In this section we will detail the process undertaken in the formulation of this manual. The account will be of use to the users viz. the academicians, teachers and students to better grasp the significance of the effort and the role that each would have to play. The subsequent section will outline the correct use of the manual in order to derive the maximum benefit.

I- Defining National Goals and Programme Outcomes

The process of identifying competency is a complex one. Defining the outcome clearly helps in defining the relevant competency thus enabling a person acquiring it with relative ease. In case of the medical graduate, the outcome or goal is determined by the health care needs of the community as perceived by the statutory authorities and the ability of the particular health care system to respond to this need. India has a pluralistic health tradition and the community accesses the several health care systems to fulfil their multiple health needs. Scientific evidence is generally relied upon to determine and differentiate the role of each system in providing health care. This, however, may not always be forthcoming to the required degree of precision.

Considering the above, the NCH has formulated broad national goals which a Homoeopathic graduate would be expected to be able to achieve.

NATIONAL GOALS:

At the end of undergraduate program, the homoeopathic medical student should be able to:

a. Recognize the strength of homoeopathy, its applicability and limitations in health care of society and the individual.
b. Integrate Homoeopathy along with conventional line of treatment for effective delivery of health care.
c. Recognize the purpose of the National Health Policy and “Health for all” as a national goal and health right of all citizens and undergo training to achieve the realization of this social responsibility
d. Develop a scientific temper, acquire educational experience for proficiency in profession and promote healthy living based on the tenets of homoeopathy.
e. Become an exemplary citizen by observing medical ethics and fulfilling social and professional obligations so as to respond to national aspirations.
f. Achieve competence in the practice of homoeopathy with holistic approach, encompassing promotive, preventive, curative and rehabilitative aspects of common

diseases.

g. Establish Homoeopathy as an evidence-based system of medicine & practice it with zeal so that it stands at par to other scientific healing methods.

The above goals, though desirable, are broad. To realize them, the student entering into the undergraduate homoeopathic programme needs to be equipped with a set of competencies which would fall in the domains of knowledge, skills and attitudes. The broadgoals need to be defined in specific actionable terms which will form the Programme outcomes. These will enable all the stakeholders to be clear of the nature of functioning expected from the homoeopathic physician at the end of the training. Accordingly, the teamof resource persons worked together to formulate Programme Outcomes

PROGRAMME OUTCOMES:

At the end of the programme of the undergraduate studies, the homoeopathic physician must

1) Develop the knowledge, skills, abilities and confidence as a primary care homoeopathic practitioner to attend to the health needs of the community in a holistic manner

2) Correctly assess and clinically diagnose common clinical conditions prevalent in the community from time to time

3) Identify and incorporate the socio-demographic, psychological, cultural, environmental & economic factors affecting health and disease in clinical work

4) Recognize the scope and limitation of homoeopathy in order to apply Homoeopathic principles for curative, prophylactic, promotive, palliative, and rehabilitative primary health care for the benefit of the individual and community

5) Be willing and able to practice homoeopathy as per medical ethics and professionalism.

6) Discern the scope and relevance of other systems of medical practice for rational use of cross referrals and role of life saving measures to address clinical emergencies

7) Develop the capacity for critical thinking, self-reflection and a research orientation as required for developing evidence based homoeopathic practice.

8) Develop an aptitude for lifelong learning to be able to meet the changing demands of

clinical practice

9) Develop the necessary communication skills and enabling attitudes to work as a responsible team member in various healthcare settings and contribute towards the larger goals of national health policies such as school health, community health and environmental conservation.

Defining the Programme outcomes is a crucial step since this allows us to derive the competencies the homoeopathic graduate should possess at the end of the period of training. Care is taken to ensure that the National goals are covered as much as possible by the various aspects of the Programme Outcomes. Further, the annual course objectives for each academic year will be formulated separately based on the Courses studied and the nature of clinical or community activities undertaken each year. Accordingly, the corresponding competencies for the respective years have been defined.

Domains of Competencies for Homoeopathic Medical Graduate

The training of undergraduates in homoeopathy is now based on the philosophy of enabling competencies. The graduates are expected to demonstrate professional competencies as required and relevant for basic homoeopathic practice. In this background, the domains of performance need to be clearly projected for mapping the professional performance for both training and assessment.

Therefore, drawing on the proposals made in the ACGME, and CanMEDS documents, a taxonomy of competencies for homoeopathic graduates is proposed with six domains – knowledge & scholarship; patient care; homoeopathic orientation, communication skills, practice-based learning& improvement; and professionalism.

A detailed clarity on the six domains of competencies is provided as follows:

I. Knowledge and Scholarship

To acquire relevant and optimal levels of knowledge of the basic, clinical, and behaviouralsciences, and apply these in the context of patient care.

1. Describe the normal structure and function of the human body and each of its major organ systems.
2. Recognise the altered structure and function of major organ systems that are seen in common diseases and conditions.
3. Relate the clinical, laboratory, and radiologic manifestations of common disease

and conditions.

4. Correlate the behavioural, psychosocial, genetic, and cultural factors associated with the origin, progression, and treatment of common diseases and conditions.
5. Identify the epidemiological dimensions of common diseases and conditions within a defined population.

II. Patient care

To provide individualised therapeutic and individualised and community-wide preventive care fora range of conditions.

1. Gather accurate, complete, and unbiased information through history taking, physical examination, and laboratory & imaging data.
2. Interpret the symptoms and correlate them with the outcomes of physical examination, and laboratory & imaging data.
3. Prioritise the outcomes of interpretation to prepare the basis for patient care decisions.
4. Plan for the management of therapeutic care on the basis of disease state, patient individuality, and the psycho-social influencers.
5. Plan for a community-based preventive care on the basis of socio-cultural, and health belief paradigms.
6. Engage the patients, family / care givers, and the community members to empower them for therapeutic / preventive care.
7. Provide evidence-based information for the patient and community to introspect and develop self-sufficiency for continued care.

III. Homeopathic orientation

To make evidence-based decisions that are anchored into the spirit of homeopathy for both individual and community care, and for therapeutic and preventive care.

1. Relate the patient's history, physical examination, and laboratory & imaging data for developing a picture of homeopathic diagnosis.
2. Position the case in Hahnemann's disease classification.
3. Identify the operating school of philosophy in the case.
4. Assess the prognostic possibilities as per Dake's hypothesis.
5. Track the progress of disease and specify its current state.
6. Select the prescription approach as materia medica-based, therapeutics-based, or repertory- based.
7. In the case of repertory-based prescription, select the appropriate repertorisation medium.

8. Identify the similimum including the potency and dosage.
9. Assess the remedy reaction as per Hering's Law or Direction of Cure, and Kent's 12 Observations.
10. Mange the case in line with principles of homeopathy.

IV. Communication Skills

Shall be able to communicate and interact effectively with patients, their families and members of the inter-professional healthcare team.

1. Practice empathic and patient-centered interviewing and communication.
2. Obtain an accurate and complete medical history considering the patient's culture, beliefs, personal preferences and level of health literacy.
3. Communicate effectively, both orally and in writing, with patients, families and members of the healthcare team / other healthcare professionals.
4. Function as a member of a healthcare team, collaborating effectively with other healthcare professionals in caring for patients.

V. Practice-Based Learning and Improvement

Develop the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning

1. Recognize strengths, deficiencies and limitations in their knowledge and skills.
2. Articulate the goals for self-regulated learning and improvement.
3. Perform learning activities that address gaps in the knowledge, skills and / or attitudes.
4. Use information technology to optimize learning.
5. Demonstrate commitment to continuously improve knowledge, skills and/or attitudes byincorporating formative evaluation and feedback into daily practice.
6. Participate in the education of patients, families, trainees, peers and other health professionals.
7. Obtain information about individual patients, populations of patients or communities ofpatients to improve care.
8. Practice life-long learning skills by continually identifying, analysing and implementing new knowledge, guidelines, standards, technologies, products or services.

VI. Professionalism.

Demonstrate a commitment to upholding professional duties guided by ethical principles.

1. Demonstrate respect for patients by using the appropriate form of address, attending to a patient's comfort, displaying appropriate attire and grooming, and honouring a patient's privacy and right to make decisions.
2. Demonstrate responsibility in actions by being punctual, managing emotions when confronted with adversity and confrontation, and recognizing personal and peer impairments.
3. Demonstrate honour and integrity by being honest about role and experience level, admitting mistakes and shortcomings, appropriately attributing sources of ideas and data, and respectingboundaries between patients, peers, and educators.
4. Demonstrate reverence for human life, understanding that sympathy for suffering is a fundamental concern of the medical profession and that the needs of the patient are paramountand should govern a physician's actions.
5. Demonstrate knowledge of the principles that govern ethical decision-making and rules and regulations regarding healthcare delivery, incorporating them into clinical practice and research

Teachers implementing this curriculum shall use these guardrails to guarantee that the curriculum implementation is firmly on track, and is transparent for monitoring and verification of progress.

This now equips us to chart the competencies against the expanded functions of the homoeopathic physician in each of the areas mentioned above. The components of each of the areas has been expanded to include all actions which the trained student would be expected to undertake.

This also helps us to zero down on the tasks which the homoeopathic student would need to be trained to perform. With this background, we should be able to approach the Manual which is being issued for 2nd, 3rd and 4th BHMS. It will be noted that the 6 domains of competencies will be aligned with the specific learning objectives for each item of learning.

Considerable fresh thought has gone into the framing of this document of CBDC for 2nd, 3rd and 4th BHMS. The existing templates were unable to satisfy the very foundations on

which homoeopathic practice rests and have been extensively elaborated and modified in the Preamble to the CBDC for 2nd, 3rd and 4th BHMS. The two features which may be emphasized here are:

1. Close adherence to homoeopathic philosophy and principles at every stage of education and training
2. This is turn demands a rare amount of integration at horizontal, vertical and spiral forms

The next section will deal with how the Competency table was formulated and how it should be used.

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3. General Medical Council (2017) Generic professional capabilities framework accessed at https://www.gmc-uk.org/-/media/documents/generic-professional-capabilities-framework--2109_pdf-70417127.pdf on 5th December 2022
4. Arora Aman (2020) Building Generic Competencies Model Conference: International Conference on Recent Trends and Innovations in Business Management, Social Sciences and Technology - NCIBM 2020, New Delhi accessed at https://www.researchgate.net/publication/345001112 on 5th December 2022

II- UNDERSTANDING THE COMPETENCY TABLE

The Competency Table has been designed keeping in mind the domains of competencies required by the learner to attain the overall Program Outcomes (PO) as well as Course Outcomes (CO) of all courses.

A. Methodology in preparation of the Competency Table

The following methodology was adopted in preparing the Competency table for each course (or subject) of 2nd, 3rd and 4th year of the BHMS program once the National Goals, Programme Outcomes, and domains of competencies were identified:

- Course Outcomes (CO) were identified for each course (or subject) that were in alignment with the National goals and Programme Outcomes (PO)
- Finalizing the syllabus or the list of topics which will help to achieve not only the Course Outcomes (CO) but also the overall Program Outcomes (PO)
- Aligning the competencies from the 6 domains with the content.
- Identifying the Learning Objectives and Specific Learning Objectives (SLO) for each topic.
- Identifying the level of Miller's Pyramid for each Specific Learning Objectives (SLO)
- Classifying each Specific Learning Objective (SLO) as per Bloom's Taxonomy andGuibert's Level
- Defining the priority of each Specific Learning Objective (SLO) into 'Must know' or 'Desirable toknow' or 'Nice to know' categories
- Choosing the appropriate Teaching Learning method/s and media and the assessment method/srequired for achieving each objective or outcome
- Identifying the Horizontal, Vertical and Spiral Integration with other courses (or subjects) required for holistic understanding of the topic

We will now illustrate how the Competency table is to be read with respect to the Community Medicine Course (subject)

Illustrative Diagrammatic Representation of Competencies Table with example of the Community Medicine Course

	Concepts of Health, Disease Causation & Prevention and Homoeopathy									
Competency No	Domain of Competency	Miller	Content	Specific Learning Objectives	Bloom/Guilbert	Priority	T-L M/M	Assessment		Integration
								Formative	Summative	
Hom UG CM I-T 2.1	KS	KH	Concept of health	Discuss the history of health Discuss the biomedical, ecological, psychological, and spiritual dimensions of holistic health	C-II	DK	1. Lecture 2. Small Group Discussion	MCQ Viva Quiz	MCQ, SAQ	Organon of Medicine
Hom UG CM I-T 2.2	KS	K	Health	Define the term "Health" as per WHO.	C-I	DK	1. Lecture 2. Small Group Discussion	MCQ Viva Quiz	MCQ,	

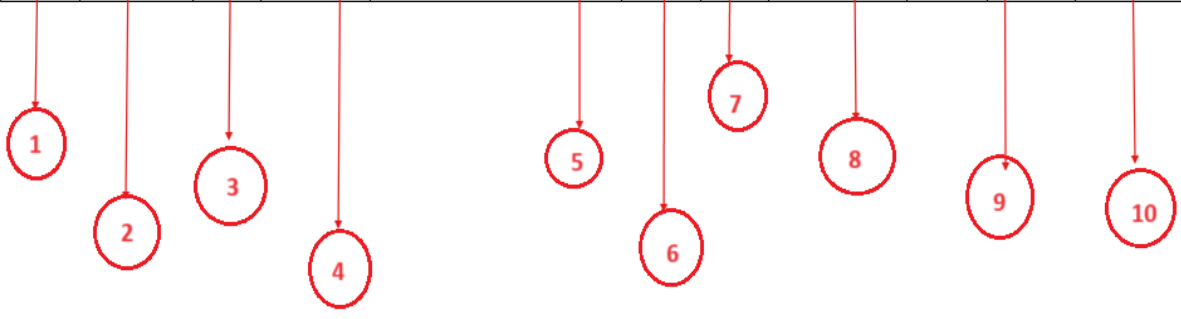

Table 1: Description of the Competencies table

S.No	Description
1	Unique number of the competency /outcome (Hom UG CM I-T 2.1) Hom UG CM I-T 2.1 to be read as Homoeopathy Under Graduate Program, Community Medicine course 3rd BHMS, Theory Component Unit , Topic 2.followed by serial number of the Specific Learning Objectives (SLO)
2	Domain of Competency covered by the topic- Domain Competency: KS-Knowledge and Scholarship PC- Patient care HO- Homoeopathic orientation CS- Communication Skills PBL- Practice-Based Learning and Improvement PRF- Professionalism
3	Mapping of the Level of Specific Learning Objectives (SLO) to Miller's Pyramid- Knows (K)/ Knows How (KH)/ Shows How (SH)/ Does (D)
4	Content to be covered from the topic
5	Description of Specific Learning Objectives (SLO) for the topic
6	The Blooms Domain addressed by the Specific Learning Objectives (SLO)- Cognitive (C) or Affective (A)or Psychomotor (P) Domain and Mapping of the Specific Learning Objective (SLO) to Guilbert's Level of Learning in the Cognitive or Affective or Psychomotor Domain
7	Assigning priority to Specific Learning Objective (SLO) as per Must know (MK) or Desirable to know (DK) or Nice to know (NK) areas
8	Teaching Learning methods and media for each SLO
9	Assessment methods for each SLO classified under formative and summative assessment
10	Vertical or horizontal integration with other courses to improve understanding. If the subject is taught for more than 1 year, it must be integrated spirally in all the years.

III. USING THE COMPETENCY TABLE

A Competency Based Dynamic Curriculum necessitates that each topic in a course (orsubject) be elaborated in terms of the outcomes that are to be achieved by the learner at theend of the particular topic. This in turn will help the learner to achieve the competencies at the course and overall, at the program level.

1. Linking the Specific learning Objective (SLO) to the competencies and Miller's Level

	Concepts of Health, Disease Causation & Prevention and Homoeopathy									
Competency No	Domain of Competency	Miller	Content	Specific Learning Objectives	Bloom/Guilbert	Priority	T-L M/M	Assessment		Integration
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Hom UG CM I-T 2.1	KS	KH	Concept of health	Discuss the history of health Discuss the biomedical, ecological, psychological, and spiritual dimensions of holistic health	C-II	DK	1. Lecture 2. Small Group Discussion	MCQ Viva Quiz	MCQ, SAQ	Organon of Medicine
Hom UG CM I-T 2.2	KS	K	Health	Define the term "Health" as per WHO.	C-I	DK	1. Lecture 2. Small Group Discussion	MCQ Viva Quiz	MCQ,	

Each Specific learning Objective (SLO) will help the learner to acquire the required domains of competencies (abilities that a basic homoeopathic doctor would be trusted to have acquired as a consequence of his / her learning).

The Specific learning Objective (SLO) also indicates at what level the competencyis defined in the Miller's Pyramid which in the above example is at the level of 'Knows' and 'Knows How'– the ability to recall facts and ideas and the domain of competency covered is Knowledge and

Scholarship.

2. Specific learning Objective (SLO) for each topic

	Concepts of Health, Disease Causation & Prevention and Homoeopathy									
Competency No	Domain of Competency	Miller	Content	Specific Learning Objectives	Bloom/Guilbert	Priority	T-L M/M	Assessment		Integration
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Hom UG CM I-T 2.1	KS	KH	Concept of health	Discuss the history of health Discuss the biomedical, ecological, psychological, and spiritual dimensions of holistic health	C-II	DK	1. Lecture 2. Small Group Discussion	MCQ Viva Quiz	MCQ, SAQ	Organon of Medicine
Hom UG CM I-T 2.2	KS	K	Health	Define the term "Health" as per WHO.	C-I	DK	1. Lecture 2. Small Group Discussion	MCQ Viva Quiz	MCQ,	

Specific Learning Objectives (SLOs) start with the "Action Verb" as per the Domain and level and describe what students should know or be able to do at the end of a learning session.

3. Bloom/ Guilbert's level of SLO

	Concepts of Health, Disease Causation & Prevention and Homoeopathy									
Competency No	Domain of Competency	Miller	Content	Specific Learning Objectives	Bloom/Guilbert	Priority	T-L M/M	Assessment		Integration
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Hom UG CM I-T 2.1	KS	KH	Concept of health	Discuss the history of health Discuss the biomedical, ecological, psychological, and spiritual dimensions of holistic health	C-II	DK	1. Lecture 2. Small Group Discussion	MCQ Viva Quiz	MCQ, SAQ	Organon of Medicine
Hom UG CM I-T 2.2	KS	K	Health	Define the term "Health" as per WHO.	C-I	DK	1. Lecture 2. Small Group Discussion	MCQ Viva Quiz	MCQ,	

The SLOs are written as per the Blooms Domain (Cognitive or Affective or Psychomotor) under which they are categorized.

In the above example three Specific Learning Objectives (SLOs) have been described that belong to the Cognitive domain.

They are then mapped to Guilbert's Level of Learning in the Cognitive or Affective or Psychomotor Domain.

In the above example, the first two SLOs belong to level-II of Guilbert's level of learning under cognitive domain whereas the third SLO belongs to level-I of Guilbert's level of learning under cognitive domain.

4. Priority of Learning of SLO

	Concepts of Health, Disease Causation & Prevention and Homoeopathy									
Competency No	Domain of Competency	Miller	Content	Specific Learning Objectives	Bloom/Guilbert	Priority	T-L M/M	Assessment		Integration
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The priority of learning is represented as 'Must know', 'Desirable-to-know', and 'Nice-to-know'. Prioritization is a critical component of curriculum design because it classifies the specific learning objectives on the basis of their importance and usefulness for the ultimate professional standards. The priority of learning is objectively assigned by a formula that gives weightage on the basis of multiplying 'frequency and impact' of the learning for professional needs.

In the above example, all the three SLOs are 'Desirable to Know'.

5. Teaching Learning methods and media for each topic

	Concepts of Health, Disease Causation & Prevention and Homoeopathy									
Competency No	Domain of Competency	Miller	Content	Specific Learning Objectives	Bloom/Guilbert	Priority	T-L M/M	Assessment		Integration
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Hom UG CM I-T 2.2	KS	K	Health	Define the term "Health" as per WHO.	C-I	DK	1. Lecture 2. Small Group Discussion	MCQ Viva Quiz	MCQ,	

The Teaching- Learning methods and media have been identified that are most suitable to the SpecificLearning Objectives (SLOs) formed for each topic and as per the Domain of eachof the Specific Learning Objectives (SLOs).

In the above example, Lectures, Small Group Discussions are the Teaching- Learning methods to be adopted for achieving the SLO. The media could be projectors, models, whiteboard etc.

The Teaching Learning Methods and media will vary as per the Specific Learning Objectives (SLO) and the Domains they cover.

6. Assessment methods for each topic

	Concepts of Health, Disease Causation & Prevention and Homoeopathy									
Competency No	Domain of Competency	Miller	Content	Specific Learning Objectives	Bloom/Guilbert	Priority	T-L M/M	Assessment		Integration
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Hom UG CM I-T 2.2	KS	K	Health	Define the term "Health" as per WHO.	C-I	DK	1. Lecture 2. Small Group Discussion	MCQ Viva Quiz	MCQ,	

The Assessment methods have been identified that are most suitable to the Specific Learning Objectives (SLOs) formed for each topic and as per the Domain of each Specific Learning Objectives (SLOs) to assess the learner.

In the above example, Multiple Choice Questions (MCQ), Short Answer Questions (SAQ), Viva Voce and Quiz are the assessment methods to be adopted for assessing the SLO. The Assessment Methods will vary as per the SLO and the Domain it covers.

They are further classified into formative and summative assessment methods.

Formative assessment methods will be used at the end of every topic to assess whether the student has achieved the desired SLOs and give feedback. In the above example, MCQ's, Viva, Quiz are the formative assessment methods to be used to assess the particular SLOs.

Summative assessment methods will be used to assess the student on a particular topic for internal assessment and the Final University Examination. In the above example, MCQ's, SAQ's are the summative assessment methods that would be used to assess whether the student has achieved these SLOs.

7. Integrated Learning

	Concepts of Health, Disease Causation & Prevention and Homoeopathy									
Competency No	Domain of Competency	Miller	Content	Specific Learning Objectives	Bloom/Guilbert	Priority	T-L M/M	Assessment		Integration
								Formative	Summative	
Hom UG CM I-T 2.1	KS	KH	Concept of health	Discuss the history of health Discuss the biomedical, ecological, psychological, and spiritual dimensions of holistic health	C-II	DK	1. Lecture 2. Small Group Discussion	MCQ Viva Quiz	MCQ, SAQ	Organon of Medicine
Hom UG CM I-T 2.2	KS	K	Health	Define the term "Health" as per WHO.	C-I	DK	1. Lecture 2. Small Group Discussion	MCQ Viva Quiz	MCQ,	

Horizontal or Vertical Integrated Learning with other subjects is required for a holistic understanding of the topic from different points of view.

In the above example, the above topic should be integrated with Organon of Medicine for betterunderstanding of the topic.

Spiral integration is required as the subject will be taught in II, III and IV BHMS.

Legend: Abbreviations

Sr. No	Acronym	Description
1.	PO	Programme outcomes
2.	CO	Course outcomes
3.	ACO	Annual Course Objectives
4.	SLO	Specific Learning Objective
5.	KS	Knowledge and Scholarship
6.	PC	Patient Care
7.	HO	Homoeopathic Orientation
8.	CS	Communication Skills
9.	PBL	Practice Based Learning and Improvement
10.	PRF	Professionalism
11.	K	Knows
12.	KH	Knows How
13.	SH	Shows How
14.	D	Does
15.	C-I/II/III	Cognitive Domain- Guilbert's Level-I/II/III
16.	P-I/II/III	Psychomotor Domain- Guilbert's Level-I/II/III
17.	A-I/II/III	Affective Domain- Guilbert's Level-I/II/III
18.	MK	Must Know
19.	DK	Desirable to Know
20.	NK	Nice to Know
21.	MCQ	Multiple Choice Question
22.	SAQ	Short Answer Question

23.	LAQ	Long Answer Question
24.	OSPE	Objective Structured Practical Examination
25.	OSCE	Objective Structured Clinical Examination

IV- Glossary of terms used in the template.

Goals

These are broad outcomes expected of a student at the end of the course of studies. These are to be contrasted with Objectives/Outcomes which are more specifically and narrowly defined.

Programme

A range of learning experiences offered to students in a formal manner over a period of one-to-four years leading to certificates/ diplomas/ degrees. Examples: BA (Economics) BSc (Physics). All possible formal degree Programmes are identified by UGC. BHMS is one such Programme

Programme Outcome

Programme Outcomes (POs) are what knowledge, skills and attitudes a graduate should have at the time of graduation. The Programme Outcomes of professional disciplines are identified at national level by the concerned accrediting agency. In this case, it would be the National Commission of Homoeopathy which would be involved.

Course

Course for the purpose of this Manual represents a subject e.g. Anatomy. In homoeopathic education some of the courses extend over several years e.g. Materia Medica. The relevance of this is in the formulation of Course Outcome

Course Outcome

Course Outcomes are statements that describe what students should be able to do at the end of a course. Where a Course extends over a number of years, it is necessary to define distinct Course Outcomes over the entire teaching programme of the subject. These will vary in depth and extent of the coverage of the subject.

Annual Course Objectives (ACO)

Annual course objectives are overarching goals or outcomes that educators set for an academic course to guide teaching, learning, and assessment for the particular year. These objectives serve as a roadmap for both teachers and students, outlining what is expected to be achieved by the end of the year in the course. They typically encompass the essential knowledge, skills, and competencies that students should acquire within the specified timeframe.

Competency

An observable ability of a health professional, integrating multiple components such as knowledge, skills, values, and attitudes. Since competencies are observable, they can be measured and assessed to ensure their acquisition.

Content:

Content is the group of sub-topics to be covered under each broad topic.

Millers Levels:

Miller's Pyramid is a diagrammatic representation of the convergence of learning. It maps the pathway of learning to show a person gains the ability and competence in a series of increasingly progressive phases of learning.

The broad base of this pyramid - 'Knows' – has the ability to recall facts and ideas that form the bedrock of professional requirements. 'Knows How' is the next phase of learning, where the students gains the insight into the relationships between the various units of 'knows' andcan relate them meaningfully to reach the 'knows how' capacity. These phases would largelybe in the Cognitive Domain of Bloom's Taxonomy of Learning Objectives.

Learning is not just about knowing and knowing how, but also to enable that the 'know how'is put into practice. This is the third phase of Miller's Pyramid – the 'Shows How'. During this phase of learning, the student is able to demonstrate the reasoning ability that he / she has acquired in controlled or real situations. This ability also includes the psychomotor dimensionof Bloom's Taxonomy. The summit of pyramid, i.e., 'Does' also includes the emotional aspect

of learning in the form of values, attitudes, communication, etc, that denote the 'Affective Domain' of Bloom's Taxonomy.

The Miller's Pyramid is a valuable tool to represent the increasing levels of competencies that the students need to acquire, and also a framework to assess the level of competency that is achieved. Interestingly, the framework focuses on what the learner would be doing, rather than on what the teacher would be doing.

Specific Learning Objectives:

Specific Learning Objectives / Outcomes (SLOs) describe what students should know or be able to do at the end of a learning session, that they couldn't do before. These are written and communicated in a 'low context communication style', that is to say, whoever reads the SLO would have the same understanding that the person who wrote it had. That is, there would be no communication gap.

That is the reason why the SLOs are written specifically and exclusively as units of learning in one of the domains of Bloom, and further at one of the levels of Guilbert. This will ensure that the learning that is expected is clearly communication among all those who refer to it, including those who set the assessment and evaluate the student performance. Further, the SLOs are ALWAYS written with an ACTIVE verb, so as to make the statement observable and measurable.

Bloom's domain:

Bloom's Taxonomy of Educational Objectives is a tool for classifying learning under the categories of 'knowledge', 'skill', and 'attitude / value / communication', represented by the technical terms 'Cognitive', 'Psychomotor', and 'Affective' domains respectively. Each of these domains distinguish the dimension of learning in a particular area. The importance of such classification is that it offers a clear model for both teaching and students' assessment.

Guilbert's level:

Guilbert's Hierarchy is a tool that describes the various levels of learning that can be mapped and managed in the Bloom's domains of learning – cognitive, psychomotor, and affective. This tool also has the additional benefit to identify the appropriate teaching – learning methods / media, and also the assessment strategies.

In the ‘knowledge’ domain Guilbert’s approach to learning proceeds from recall of facts to understanding / interpreting the different sets of data, and finally to the ability to make decisions and solve problems on the basis of the understanding / interpretation. This simple three-step process builds a sequential order of learning; it clearly brings out that decisions shall be made NOT on the basis of facts alone, but through a process of understanding and interpretation.

The ‘skill’ domain builds the learning from the stage of observing and imitation to gaining control over the skills and culminating in automatism of the skill. In simple terms, any skill will be learnt initially by observing its performance, and imitating the same in the sequential order. In the next phase, the learner tries to gain control over the skill initially under the supervision, and ultimately will be able to perform it independently.

Learning in the affective domain proceeds from the stage where the learner is open and receptive to the stimulus or trigger situation, responding to it in a desirable manner, and finally internalizing the responses.

Priority of learning:

The priority of learning is represented as ‘Must know’, ‘Desirable-to-know’, and ‘Nice-to-know’. Prioritization is a critical component of curriculum design because it classifies the learning outcomes on the basis of their importance and usefulness for the ultimate professional standards. The priority of learning is objectively assigned by a formula that gives weightage on the basis of ‘frequency and impact’ of the learning for professional needs.

TL Method / Media:

The teaching-learning (TL) methods and media are the vehicles that enable the acquisition of stated outcomes. Teaching method is simply ‘what the teacher does or what the teacher enables the students with’, such as giving a lecture, conducting a demonstration, or facilitating a group discussion. Teaching-learning media is ‘what the teacher or the students use’ to enable the learning; with examples such as a board, or projector, or model, or specimen, among others.

The teaching-learning methods and media are specific to the domains and levels in the domains. It must also be remembered that learning is a continuum, and a range of methods and media would be appropriate in the different phases in the continuum of learning.

Assessment:

Assessment of learning is an important component of curriculum. This measures the

performance of the students in comparison to the expected outcomes of learning. Therefore the specific learning outcomes must be stated and communicated clearly and objectively to all the stakeholders of education. Assessment strategy is based on the domain and the level of domain in which the outcome is to be measured. Assessment could be judgemental for the extent and quality of outcomes, when it is called 'assessment of learning', or it could also be supportive for learning, when it is called as 'assessment for learning'. There are two major approaches to assessment – formative, and summative. The tools of assessment are provided in the annexure.

Formative Assessment:

Formative assessment is NOT judgmental, in that it does not brand the learner as 'pass' or 'fail'. The formative assessments measure the extent and quality of learning with reference to the expected learning outcomes, so that the students can be given feedback to improve on their performance. The formative assessments promote mastery learning, that is to say, each students achieves the stated level of mastery of performance because of the feedback and support. Formative assessment is also called as continuous assessment.

Summative Assessment:

Summative assessment has the mandate to judge the achievement of the learner at the end of a period of learning, and label him / her as 'pass' or 'fail, assign a rank, approve for eligibility to be promoted or eligibility to be admitted to a course. These assessments also serve as quality check to ensure that those who are being certified conform to a minimum standard of professional competence.

Objective Structured Practical Examination:

The Objective Structured Practical Examination (OSPE) is a type of assessment commonly used in medical education. It's designed to evaluate a student's practical skills and competencies in a structured and standardized manner.

In an OSPE, students rotate through a series of stations, each presenting a different task or scenario. These stations typically involve procedural techniques, or interpretation of diagnostic tests. At each station, students are assessed based on predefined criteria and checklist.

Objective Structured Clinical Examination:

The Objective Structured Clinical Examination (OSCE) is a widely used method of assessing clinical skills in medical education. It's designed to evaluate various competencies such as clinical reasoning, communication skills, physical examination techniques, and professionalism in a standardized and objective manner.

In an OSCE, candidates rotate through a series of stations, each representing a different clinical scenario or task. At each station, candidates are typically required to interact with simulated patients, perform specific clinical tasks, or respond to clinical questions within a set time frame, usually ranging from 5 to 15 minutes per station.

Scenarios can cover a wide range of clinical contexts, including history-taking, physical examination, clinical decision-making, counseling, and procedural skills. Trained assessors evaluate candidates based on predefined criteria, often using structured checklists or rating scales to provide consistent and objective feedback.

Integration:

Integration of learning is an essential requirement for aligning various data points of knowledge and skills for getting a holistic understanding and enabling a unified performance. Integration can be achieved at various dimensions and at various levels.

The dimensions of integration could be temporal in the form of Horizontal, Vertical, or Spiral. Horizontal integration is the alignment of learning on a longitudinal timeline, where the comparable contents of various subjects in the same term or year are integrated.

Vertical integration is seen in the subjects that build on the pre-existing knowledge and skillsof another subject. For example, the integration between clinical subjects like Practice of Medicine with the para-clinical subjects such as pathology.

Spiral integration is where a subject is recurring at various levels in the same course. For example, Materia medica is learnt from the first to final BHMS, and the focus of the subject is not the same in each year. There would be iteration of the same knowledge from different perspectives and capabilities across the different phases of BHMS.

The levels of integration represent the increasing approximation of knowledge from different

subjects, so as to reach an approximation of fusion. The attempt to integration may begin with arranging the comparable contents of different subjects at the same cross sections of timeline. Further, there could be positioning the content of one subject into another subject to bring some kind of co-existence. Still further, the contents can be seamlessly merged to create an aligned learning content. Such integrative efforts can bring about holistic learning for a meaningful homeopathic capacity-building.

Subject name : Pathology and Microbiology

Subject code: HomUG-Path-M

Index

1. Preamble

Pathology and Microbiology provide comprehensive knowledge of the pathologic basis of disease, to enable a complete understanding of the reaction of man to different morbid factors causing disease -its natural course, clinical manifestations, complications and sequel.

The students must be able to discriminate symptoms of the patient & disease satisfying the Hahnemannian requirements of physicians as mentioned in aphorism 3 of Organon of Medicine, make them competent in diagnosis and to substantiate miasmatic perspective with pathology for an accurate homoeopathic prescription.

Knowledge also helps in deciding the scope, limitation and prognosis of a case through the understanding of susceptibility. Immune-mediated illnesses are becoming important areas where homoeopathic interventions can play a significant part in alleviating suffering and in bringing about a cure. The teaching should be aligned and integrated vertically in organ systems recognizing deviations from normal structure and function and clinically correlated to provide an overall understanding of the aetiology, mechanisms, laboratory diagnosis and management of diseases and horizontally with Homoeopathic Philosophy, Homoeopathic Materia Medica and Repertory to understand the Homeopathic concept of Disease and its management. Pathology will need alignments with Anatomy and Physiology on one side and clinical subjects on the other side with the foundation of homoeopathic subjects.

2. Course outcomes

At the end of the II BHMS course the students will be able to:

1. Recognize the importance of study ofPathology and Microbiology in Homoeopathic systemof medicine
2. Understandthe morphological changes in cell structure in disease and recognize the mechanism of the etiological factors in the causation of such changes
3. Integrate the study of Pathology and Microbiology with Homoeopathic philosophy, Materia Medica, and Repertory.
4. Understand classification of diseases as per Master Hahnemann.
5. Understand common and important diseases based on their evolution, aetio-pathogenesis, pathology, progress and prognosis.
6. Develop skill in the identification of pathological features specifically histo-pathological features, and gross pathological specimens.
7. Able to interpret laboratory reports for diagnosis and treatment purpose.
8. Develop a positive attitude towards the role of Pathology and Microbiology in Homoeopathic system

3. Course content and its term-wise distribution

3.1 Contents for Term I

Theory	
Sr. No.	**Topic**
1.	Introduction to Pathology
2.	General Pathology
3.	Introduction to Microbiology
4.	Sterilisation and Disinfection
5.	Culture medias and methods
6.	Infection and Disease
7.	Human Microbiome
8.	Gram positive bacterias
9.	Introduction to Virology
10.	Introduction to Parasitology
11.	Protozoans
Non –lecture- Practical/Demonstrative	
1.	Demonstration of Instruments
2.	Demonstration of Methods of sterilisation

3.	Demonstration of culture medias
4.	Estimation of haemoglobin
5.	Total count of Red Blood Cells
6.	Total count of White Blood Cells
7.	Bleeding time and clotting time
8.	Blood grouping.
9.	Gram staining
10.	Demonstration of histopathological slides
11.	Demonstration of Pathological specimen/models

3.2 Contents for Term II

Theory	
Sr. No.	**Topic**
1.	Systemic Pathology
2.	Gram negative bacterias
3.	Acid fast bacterias
4.	Spirochaetes
5.	Virology-DNA,RNA virus

6.	Parasitology –Helminths
7.	Mycology
8.	Diagnostic procedures in Microbiology
Non –lecture- Practical/Demonstrative	
1.	Staining of thin and thick films.
2.	Differential count.
3.	Erythrocyte sedimentation rate-demonstration
4.	Urine examination-physical,chemical and microscopical examination.
5.	Examination of Faeces- demonstration
6.	Hanging drop preparation.- demonstration
7.	Acid fast staining –demonstration
8.	Interpretation of laboratory reports (serological tests, LFT, RFT, TFT etc) and its clinico pathological correlation
9.	Demonstration of common pathological specimens/models from each system
10.	Demonstration of common Pathological slides from each system

4. Teaching hours

4.1 Gross division of teaching hours

Pathology & Microbiology		
Year	**Teaching hours- Lectures**	**Teaching hours- Non-lectures**
II BHMS	200	80

4.2 Teaching hours theory

Sr. No	Topic	Hours
	Paper I	
1.	Introduction	3
	General Pathology	
1.	Cell Injury and cellular adaptation	10
2.	Inflammation and repair	10
3.	Neoplasia	10
4.	Immunopathology	8
5.	Haemodynamic disorders	10
6.	Environmental and Nutritional diseases	2

	Systemic Pathology	
1.	Diseases of the Haematopoietic system, bone marrow and blood	9
2.	Diseases of the Respiratory system.	5
3.	Diseases of the the oral cavity,salivary glands and gastro intestinal tract	6
4.	Diseases of liver, gall bladder, and biliary ducts	4
5.	Diseases of the Pancreas	1
6.	Diseases of blood vessels and lymphatics	2
7.	Diseases of Cardiovascular system	5
8.	Diseases of kidney and lower urinary tract	6
9.	Diseases of male reproductive system and prostate	1
10.	Diseases of the female genitalia and breast	4
11.	Diseases of the skin and soft tissue	1
12.	Diseases of the musculo-skeletal system.	2
13.	Diseases of Endocrine glands -thyroid	2
14.	Diseases of nervous system	1
	Total	**102**

	Paper II	
	Microbiology and Parasitology	
1.	General introduction, Bacterial structure, growth and metabolism & genetics	3
2.	Identification and cultivation of bacteria(staining, culture medias, methods)	3
3.	Sterilization and disinfection	2
4.	Infection and disease	2
5.	Gram positive cocci	5
6.	Gram negative cocci	2
7.	Gram positive aerobic bacilli	2
8.	Gram positive anaerobic bacilli	3
9.	Gram negative bacilli	9
10.	Acid Fast Bacterias	4
11.	Spirochaetes	3
12.	Fungi- general characters- cutaneous, systemic mycosis, opportunistic	3
13.	Introduction to parasitology	2
14.	Protozoans	9
15.	Helminths –cestodes, trematodes and nematodes	14
16.	Virology-introduction &,Bacteriophges	2
17.	DNA virus	11
18.	RNA viruses	12
19.	Emerging and re-emerging diseases	2
20.	Human Microbiome- homoeopathic concept	3
21.	Diagnostic procedures in Microbiology	2
	Total	**98**

4.3 Teaching hours Non-lecture

Sl. No.	Practicals	60 hrs
1.	Demonstration of common and latest equipments used in pathology and microbiology laboratory	4
2.	Estimation of haemoglobin (by acidometer)	2
3.	Total count of Red Blood Cells	2
4.	Total count of White Blood Cells,	2
5.	Bleeding time and Clotting time.	2
6.	Blood grouping.	2
7.	Staining of thin and thick films- demonstration	2
8.	Differential count of WBC	2
9.	Erythrocyte sedimentation rate -demonstration	2
10.	Urine examination physical, chemical and microscopical examination.	4
11.	Examination of Faeces- demonstration of physical, chemical (occult blood)and microscopical for ova and protozoa.	2
12.	Demonstration of Methods of sterilisation	2

13.	Common culture medias- demonstration	1
14.	Gram staining	2
15.	Acid fast staining – demonstration	2
16.	Hanging drop preparation.- demonstration	2
17.	Interpretation of laboratory reports (serological tests, LFT, RFT, TFT etc) and its clinico pathological correlation.	5
18.	Demonstration of common pathological specimens/models	10
19.	Demonstration of common histopathological slides	10
	Demonstrative Activities	**20**
1.	Seminar/tutorials/ Symposium	8
2.	PBL/CBL	6
3.	Group discussion	6

5. Content mapping (competencies tables)

5.1. Introduction to Pathology-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-PathM.1.1	KS	K	Basic definitions	Define the terms "Pathology", "Pathophysiology", "Health", "Disease"	C1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	
HomUG-PathM.1.2	KS	K	Branches of Pathology	State the branches of Pathology	C1	MK	Lecture Slide presentation	Viva Voce MCQ	Viva Voce MCQ	
HomUG-PathM.1.3	KS	K	Contributions of important scientists to Pathology	List the contribution of important scientists to Pathology	C1	NK	Lecture Slide presentation	Viva Voce MCQ	NA	
HomUG-PathM.1.4	KS	K	Common terms for study of diseases	Enumerate the common terms for study of diseases	C1	MK	Lecture Slide presentation	Viva Voce MCQ	Viva Voce MCQ	
HomUG-PathM.1.5	KS	K	Definition of health as per Homoeopathic philosophy	Define Health according to Homoeopathic concept – Aphorism -9	C1	MK	Lecture Slide presentation	Viva Voce MCQ	Viva Voce MCQ	Organon of Medicine

HomU G-Path M.1.6	KS	K	Definition of disease as per Homoeopathic philosophy	Define Disease according to Homoeopathic concept- Aphorism -11	C1	MK	Lecture Slide present ation	Viva Voce MCQ	Viva Voce MCQ	Organon of Medicine
HomU G-Path M.1.7	KS	K	Homoeopathic concept of evolution of disease and cure	Describe the Homoeopathic concept of evolution of disease and cure	C1	MK	Lecture Slide present ation	Viva Voce SAQ	Viva Voce SAQ	Organon of Medicine

5.2. Cell injury and cellular adaptation-

Sl. No.	**Domain of Competency**	**Miller**	**Content**	**SLO**	**Bloom / Guilbert**	**Priority**	**TL MM**	**Assessment**		**Integration**
								F	**S**	
HomU G-Path M 2.1	KS	K	Definition of Cell injury	Define the term "Cell injury"	C 1	MK	Lecture Slide present ation	Viva Voce MCQ	Viva Voce MCQ	
HomU G-Path M 2.2	KS	K	Etiology of cell injury	Describe the causes of cell injury	C 1	MK	Lecture Slide present ation	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ	
HomU G-Path M 2.3	KS	KH	Cellular response to injurious stimuli	Describe the types of cellular response to injurious stimuli and stress.	C 2	MK	Lecture Slide present ation	Viva Voce MCQ	Viva Voce SAQ MCQ	

HomU G-Path M 2.4	KS	K	Cellular adaptation	Define the term "cellular adaptation"	C 1	MK	Lecture	Viva Voce SAQ	Viva Voce SAQ LAQ	
HomU G-Path M 2.5	KS	K		Discuss the various types of cellular adaptation with examples	C 1	MK	Lecture Slide present ation	Viva Voce MCQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M 2.6	KS	K	Atrophy	Define the term "atrophy"	C 1	MK	Lecture	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	
HomU G-Path M 2.7	KS	KH		Explain the etiopathogenesis atrophy with examples	C 2	MK	Lecture Slide present ation	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	
HomU G-Path M 2.8	KS	KH		Describe the morphologic features of atrophied cell	C 2	MK	Lecture Slide present ation	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	
HomU G-Path M 2.9	KS	K	Hyperplasia	Define the term "Hyperplasia"	C 1	MK	Lecture	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	

HomU G-Path M 2.10	KS	KH		Describe types of hyperplasia with examples	C 2	MK	Lecture Slide present ation	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	
HomU G-Path M 2.11	KS	KH		Discuss the morphologic features of hyperplasia	C 2	MK	Lecture Slide present ation	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	
HomU G-Path M 2.12	KS	K	Hypertrophy	Define the term hypertrophy	C 1	MK	Lecture	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	
HomU G-Path M 2.13	KS	KH		Describe the types of hypertrophy with examples.	C 2	MK	Lecture Slide present ation	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	
HomU G-Path M 2.14	KS	KH		Describe the morphologic features of hypertrophy	C 2	MK	Lecture Slide present ation	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	
HomU G-Path M 2.15	KS	KH	Differences between Hypertrophy and Hyperplasia	Enumerate differences between Hypertrophy and Hyperplasia	C 2	MK	Lecture Slide present ation	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	

HomU G-Path M 2.16	KS	K	Metaplasia	Define the term “Metaplasia”	C 1	MK	Lecture	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	
HomU G-Path M 2.17	KS	KH		Describe the types of metaplasia with examples.	C 2	MK	Lecture Slide present ation	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	
HomU G-Path M 2.18	KS	K	Dysplasia	Define the term “Dysplasia”	C 1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ SAQ	
HomU G-Path M 2.19	KS	KH		Explain the cytological changes in Dysplasia	C 2	MK	Lecture Slide present ation	Viva Voce MCQ	Viva Voce MCQ SAQ	
HomU G-Path M 2.20	KS	KH	Biochemical and ultra structural changes in reversible cell injury	Describe the sequential biochemical and ultrastructural changes in reversible cell injury due to Ischaemia and hypoxia	C 2	MK	Lecture Slide present ation	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	
HomU G-Path M 2.21	KS	KH	Biochemical and ultrastructural changes in Irreversible cell injury	Describe the sequential biochemical and ultrastructural changes in irreversible cell injury due to Ischaemia and hypoxia	C 2	MK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce SAQ MCQ LAQ	

HomU G-Path M 2.22	KS	KH	Pathogenesis of cell injury	Describe the pathogenesis of Free Radical-mediated cell injury	C 2	MK	Lecture Slide present ation	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ	
HomU G-Path M 2.23	KS	K	Morphology of Reversible cell injury	Enumerate the common morphologic forms of reversible cell injury	C1	MK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M 2.24	KS	K	Hydropic change	Define the term "Hydropic change"	C 1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M 2.25	KS	KH	Hydrophic change	Describe the etiopathogenesis of Hydropic change	C 2	MK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M 2.26	KS	KH		Describe morphology of hydropic change with an example	C 2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M 2.27	KS	K	Fatty change	Define the term "Fatty change"	C 1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	

HomU G-Path M 2.28	KS	KH		Describe the etiopathogenesis of Fatty change	C 2	MK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M 2.29	KS	KH		Describe morphology of Fatty change in various organs	C 2	MK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M 2.30	KS	KH	Types of mucoid change with examples	Describe the types of mucoid change with examples	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ	
HomU G-Path M 2.31	KS	KH	Types of Hyaline change with examples	Describe the types of hyaline change with examples	C 2	MK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce MCQ	
HomU G-Path M 2.32	KS	K	Morphological forms of Irreversible cell injury	List the Morphological forms of Irreversible cell injury	C 1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	
HomU G-Path M 2.33	KS	K	Necrosis	Define the term “Necrosis”	C 1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	

HomUG-PathM 2.34	KS	K		Describe the types of Necrosis with examples	C 1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomUG-PathM 2.35	KS	K	Coagulative Necrosis	Describe the etiopathogenesis of Coagulative necrosis	C 2	MK	Lecture Slide presentation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomUG-PathM 2.36	KS	KH		Describe themorphological features of Coagulative necrosis in affected organs	C 2	MK	Lecture Slide presentation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomUG-PathM 2.37	KS	KH	Liquefactive necrosis	Describe the etiopathogenesis of liquefactive necrosis	C 2	MK	Lecture Slide presentation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomUG-PathM 2.38	KS	KH		Describe the morphological features of liquefactive necrosis in affected organs	C 2	MK	Lecture Slide presentation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomUG-PathM 2.39	KS	KH	Differences between coagulative necrosis and liquefactive necrosis	Enumerate differences between coagulative necrosis and liquefactive necrosis	C 2	MK	Lecture Slide presentation	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ	

HomU G-Path M 2.40	KS	KH	Caseous necrosis	Describe the etiopathogenesis caseous necrosis	C 2	MK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M 2.41	KS	KH		Describe themorphological features of caseous necrosis inaffected organs	C 2	MK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M 2.42	KS	KH	Fat necrosis	Describe the etiopathogenesis, morphological features of fat necrosis	C2	MK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M 2.43	KS	KH	Fibrinod necrosis	Describe the etiopathogenesis, microscopic features of fibrinod necrosis	C2	MK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M 2.44	KS	K	Gangrene	Define the term “Gangrene”	C 1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Surgery
HomU G-Path M 2.45	KS	K		State the types of gangrene	C 1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Surgery

HomU G-Path M 2.46	KS	KH	Dry gangrene	Explain the etiopathogenesis morphological features of dry gangrene with examples	C 2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Surgery
HomU G-Path M 2.47	KS	KH	Wet gangrene	Describe the etiopathogenesis morphological features of wet gangrene with examples	C 2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Surgery
HomU G-Path M 2.48	KS	KH	Differences between dry gangrene and wet gangrene	Enumerate the differences between dry gangrene and wet gangrene	C 2	MK	Lecture	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ	
HomU G-Path M 2.49	KS	KH	Etiopathology of Gas gangrene	Explain the etiopathogenesis and morphological features of Gas gangrene	C 2	MK	Lecture Slide presentation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M 2.50	KS	K	Pathological calcification	Define the term "Pathological calcification"	C 1	MK	Lecture Slide presentation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M 2.51	KS	KH		Enumerate the types of pathological calcification	C 1	MK	Lecture Slide presentation	MCQ Viva Voce	MCQ Viva Voce	

HomU G-Path M 2.52	KS	KH		Describe the etiopathogenesis of Dystrophic calcification with examples	C 2	MK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M 2.53	KS	KH		Describe the etiopathogenesis of Metastatic calcification with examples	C 2	MK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M 2.54	KS	KH		Enumerate the differences between Dystrophic calcification and Metastatic calcification	C 2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M 2.55	KS	K	Apoptosis	Define the term “Apoptosis”	C 1	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M 2.56	KS	KH		Describe the role of apoptosis in pathologic processes with examples	C 2	DK	Lecture Slide present ation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M 2.57	KS	K	Intracellular accumulation	Define the term “Intracellular accumulations”	C 1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	

HomU G-Path M 2.58	KS	KH		Enumerate the types of abnormal intracellular accumulations with examples	C 2	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	
HomU G-Path M 2.59	KS	K	Definition of Xanthomas, "Russell bodies", "Mallory body", "Brown atrophy", "Heart failure cells"	Define the terms "Xanthomas "Russell bodies", "Mallory body", "Brown atrophy", "Heart failure cells"	C 1	DK	Lecture	Viva Voce MCQ	Viva Voce MCQ	

5.3. Inflammation and repair-

Sl.No.	**Domain of Competency**	**Miller**	**Content**	**SLO**	**Bloom / Guilbert**	**Priority**	**TL MM**	**Assessment**		**Integration**
								F	**S**	
HomU G-Path M.3.1	KS	K	Inflammation	Define the term "Inflammation"	C 1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	Physiology
HomU G-Path M.3.2	KS	K	Causes of inflammation	State the Causes of inflammation	C 1	MK	Lecture	Viva Voce SAQ	Viva Voce SAQ	
HomU G-Path M.3.3	KS	K	Types of inflammation	State the types of Inflammation	C 1	MK	Lecture	Viva Voce MCQ	SAQ Viva Voce MCQ	

HomUG-PathM.3.4	KS	K	Cardinal signs of inflammation	State the cardinal signs of inflammation	C 1	MK	Lecture	Viva Voce MCQ	SAQ Viva Voce MCQ	
HomUG-PathM.3.5	KS	K	Definition of Acute inflammation"	Define the term "Acute inflammation"	C 1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	
HomUG-PathM.3.6	KS	KH	Vascular events of the acute inflammation	Describe the mechanism of vascular events in acute inflammatory response	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomUG-PathM.3.7	KS	KH	Cellular phase of acute inflammation	Describe the steps of cellular phase of acute inflammation	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomUG-PathM.3.8	KS	KH	Process of Phagocytosis	Describe the three processes of Phagocytosis in cellular phase of acute inflammation	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomUG-PathM.3.9	KS	K	Chemical mediators of inflammation	List the Chemical mediators of inflammation	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomUG-Path M II.3.10	KS	KH	Role of cell derived Chemical mediators	State the various sources and functions of cell derived chemical mediators of inflammation	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	

HomU G-Path M.3.11	KS	KH	Role of plasma derived Chemical mediators	State the various sources and functions of Plasma derived chemical mediators of inflammation	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.3.12	KS	KH	Inflammatory cells	Describe the functions of cells participating in acute and chronic inflammation	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.3.13	KS	KH	Giant cells	Describe the three types of macrophages derived giant cells	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.3.14	KS	K	Morphologic Patterns of Acute Inflammation	State the Morphologic Patterns of Acute Inflammation	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.3.15	KS	KH	Classification of inflammatory lesion	Describe the classification of inflammatory lesion based on duration, type of exudates, and anatomic location affected in acute inflammation	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ	
HomU G-Path M.3.16	KS	KH	Systemic effects of inflammation	Describe the systemic effects of acute inflammation	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ	

HomUG-PathM.3.17	KS	KH	Outcomes of Acute Inflammation	Describe the end result of Acute Inflammation	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ	
HomUG-PathM.3.18	KS	K	Chronic inflammation	Define the term “chronic inflammation"	CI	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomUG-PathM.3.19	KS	K	Types of chronic inflammation	Mention the types of chronic inflammation	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomUG-PathM.3.20	KS	KH	Morphologic Features of chronic inflammation	Describe the general features of chronic inflammation	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomUG-PathM.3.21	KS	KH	Granulomatous inflammation	Describe chronic non-specific inflammation with examples	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomUG-PathM.3.22	KS	KH	Granuloma	Describe the mechanism of evolution of a granuloma	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	

Hom UG-Path M 3.23	KS	KH		Describe the morphology of granuloma	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
Hom UG-Path M 3.24	KS	K	Examples of granulomatous inflammation	State common examples of granulomatous inflammation	C1	MK	lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
Hom UG-Path M 3.25	KS	KH	Systemic effects of chronic inflammation	State the systemic effects of chronic inflammation	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ	
HomU G-Path M.3.26	KS	K	Definition of Healing	Define the term “Healing”	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.3.27	KS	KH	Repair and regeneration	Describe the processes involved in repair and regeneration	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.3.28	KS	KH	Wound healing by primary intention	Describe Wound healing by primary intention	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Surgery

HomU G-Path M.3.29	KS	KH	Wound healing by secondary intention	Describe Wound healing by secondary intention	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Surgery
HomU G-Path M.3.30	KS	KH	Complications in healing of skin wounds	Describe the complications in healing of skin wounds	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Surgery
HomU G-Path M.3.31	KS	K	Wound healing	Discuss difference in wound healing by primary and secondary intention	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.3.32	KS	K	Factors modifying the healing process	Explain the process of Fracture Healing	CI	NK	Lecture	Viva Voce	NA	
HomU G-Path M.3.33	KS	KH	Homoeopathic aspect in inflammation	Correlate the events of inflammation and outcome of various types of inflammation with miasm and representation in repertory and different MateriaMedica.	C 2	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	OM, MM, Repertory

5.4. Haemodynamic disorders

Sl. No.	Domains of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-PathM.4.1	KS	K	Definition of Oedema.	Define the term “Oedema”	C1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	Physiology
HomUG-PathM.4.2	KS	KH	Types of Oedema.	Describe the pathogenesis of oedema	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomUG-PathM.4.3	KS	KH	Transudate and exudate	Enumerate the differences between transudate and exudate	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomUG-PathM.4.4	KS	KH	Etiopathogenesis of Oedema	Describe the etiopathogenesis of various types of oedema with its clinical correlation	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomUG-PathM.4.5	KS	K	Definition of Hyperaemia	Define the term “Active Hyperemia”	C1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	

HomUG-Path M.4.6	KS	K	Definition of Venous congestion	Define the term "Venous congestion" or "Passive hyperaemia"	C1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	
HomUG-Path M.4.7	KS	KH	Chronic venous congestion	Describe the mechanisms involved in chronic venous congestion of different organs	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomUG-Path M.4.8	KS	KH		Explain morphology of Chronic Venous Congestion in Lung	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomUG-Path M.4.9	KS	K	Definitions	Define the terms "Haemorrhage", "Haematoma", "Ecchymosis", "Purpuras", "Petechiae",	C1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	Forensic medicine
HomUG-Path M.4.10	KS	K	Shock	Define the term "Shock"	C1	MK	Lecture	Viva Voce MCQSAQ	Viva Voce MCQ SAQ LAQ	
Hom UG-Path M 4.11	KS	K		Classify shock based on aetiology	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Surgery
Hom UG-Path M 4.12	KS	KH		Describe the pathogenesis of various types of shock	C2	MK	Lecture	Viva Voce MCQSAQ	Viva Voce MCQ SAQ LAQ	

Hom UG-Path M 4.13	KS	KH		Describe the stages of shock	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Surgery
Hom UG-Path M.4.14	KS	K	Thrombosis	Define the term “Thrombosis” ,“Thrombus” .	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
Hom UG-Path M.4.15	KS	K		Enumerate the primary events in Thrombogenesis-Virchow’s triad	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
Hom UG-Path M.4.16	KS	KH		Describe the etio-pathogenesis of thrombosis	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
Hom UG-Path M.4.17	KS	KH		Describe the morphologic features of thrombi	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
Hom UG-Path M.4.18	KS	KH		Describe the fate of thrombus	C2	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	

Hom UG-Path M.4.19	KS	KH	Clinical effects of thrombi	Describe the clinical effects of various types of thrombi	C2	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
Hom UG-Path M.4.20	KS	K	Embolism	Define the term "Embolism", "Embolus"	C1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	
Hom UG-Path M 4.21	KS	K		Describe the various types of Emboli	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
Hom UG-Path M 4.22	KS	KH	Etiopathogenesis of Pulmonary thromboembolism	Describe the aetiopathogenesis of Pulmonary thromboembolism	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
Hom UG-Path M 4.23	KS	KH	Pathogenesis of Thromboembolism	Describe the consequences of pulmonary thromboembolism	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Practice of medicine
Hom UG-Path M 4.24	KS	KH	Pathogenesis of fat embolism	Describe the pathogenesis of fat embolism	C2	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ	

Hom UG-Path M.4.25	KS	KH	Pathogenesis of air embolism	Describe the pathogenesis of air embolism	C2	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ	
Hom UG-Path M.4.26	KS	KH	Pathogenesis of aminiotic fluid embolism	Describe the pathogenesis aminiotic fluid embolism	C2	NK	Lecture	NA		
Hom UG-Path M.4.27	KS	K	Ischaemia	Define the term "Ischaemia"	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
Hom UG-Path M.4.28	KS	KH		Describe the etiopathogenesis of Ischaemia	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
Hom UG-Path M.4.29	KS	KH		Describe the factors determining severity of Ischaemic injury	C2	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
Hom UG-Path M.4.30	KS	K	Infarction	Define the term "Infarction"	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
Hom UG-Path M.4.31	KS	KH		Describe the etiopathogenesis of Infarction	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Practice of medicine

Hom UG-Path M.4.32	KS	K		State the types of Infract	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	

5.5. Immunopathology-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M.5.1	KS	K	Definition of Immunity	Define the term "Immunity"	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Physiology
HomUG-Path M.5.2	KS	K	Types of immunity	State the types of immunity	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Physiology
HomUG-Path M.5.3	KS	KH	Components of Innate immunity	Describe the four components of Innate immunity	C2	MK	Lecture Slide presentation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Physiology
HomUG-Path M.5.4	KS	KH	Functions of Innate immunity	Describe the functions of Innate immunity	C2	MK	Lecture Slide presentation	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Physiology

HomU G-Path M.5.5	KS	K	Definition of Adaptive immunity"	Define the term "Adaptive immunity"	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.6	KS	K	Classification of Adaptive immunity	Classify Adaptive immunity with examples for each type	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.7	KS	KH	Features of Active immunity	Describe the features of Active immunity	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.8	KS	KH	Features of Passive immunity	Describe the features of Passive immunity	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.9	KS	K	Local immunity	Explain Local immunity	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.5.10	KS	K	Herd immunity	Explain Herd immunity	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.5.11	KS	K	Organs of immune system	State the organs of immune system	C1	MK	Lecture	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	Physiology

HomU G-Path M.5.12	KS	K	Cells and Organs of Immune system	State the cells of the immune system	C1	MK	Lecture	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	Physiology
HomU G-Path M.5.13	KS	KH	Humoral immunity	Explain the mechanism of humoral immunity	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Physiology
HomU G-Path M.5.14	KS	KH	Differences between Primary and Secondary immune response	Enumerate the differences between Primary and Secondary immune response"	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.15	KS	KH	Mechanism of cell mediated immunity	Describe the mechanism of cell mediated immunity	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.16	KS	K	Definition of "Antigen"	Define the term "Antigen"	C1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	Physiology
HomU G-Path M.5.17	KS	K	Definition of "Antibody", "Immunoglobulin"	Define the terms "Antibody", "Immunoglobulin"	C1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	Physiology

HomU G-Path M.5.18	KS	K	Immunoglobulin and their function	State the types of Immunoglobulin classes and their function.	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.19	KS	KH	Biological functions of Complement	Describe the biological functions of Complement	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.5.20	KS	K	Types of antigen-antibody reaction with examples	Discuss the types of antigen-antibody reactions with examples	C1	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.21	KS	K	Definition of Hypersensitivity	Define the term “Hypersensitivity”	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.5.22	KS	K	Types of hypersensitivity reactions	List the types of hypersensitivity reactions	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.23	KS	KH	Type I Hypersensitivity	Describe the mechanism of type I hypersensitivity reaction	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	

HomU G-Path M.5.24	KS	KH	Type I Hypersensitivity reaction with examples	Describe the examples of type I hypersensitivity reaction	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.25	KS	KH	Type II Hypersensitivity reaction	Describe the mechanism of type II hypersensitivity reaction	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.26	KS	KH	Type II Hypersensitivity reaction – examples	Describe the examples of type II hypersensitivity reaction	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.27	KS	KH	Type III Hypersensitivity reaction	Describe the mechanism of type III hypersensitivity reaction	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.28	KS	KH	Type III Hypersensitivity reaction – examples	Describe the examples of type III hypersensitivity reaction	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	

HomU G-Path M.5.29	KS	KH	Type IV Hypersensitivity reaction	Describe the mechanism of type IV hypersensitivity reaction	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.30	KS	KH	Type IV Hypersensitivity reaction – examples	Describe the examples of type IV hypersensitivity reaction	C2	MK	Lecture	Viva Voce SAQ MCQ	Viva Voce SAQ MCQ LAQ	
HomU G-Path M.5.31	KS	K	Autoimmunity	Define the term "Autoimmunity"	C1	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.5.32	KS	KH		Describe the pathogenesis of autoimmunity	C2	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.5.33	KS	K	Autoimmune diseases	State the autoimmune diseases	C1	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.5.34	KS	K	Amyloidosis	Define the term "Amyloidosis"	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.5.35	KS	K		Classify amyloidosis	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	

HomU G-Path M.5.36	KS	KH		Describe the pathogenesis of amyloidosis	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.5.37	KS	KH		Describe the features of amyloidosis of various organs .	C2	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.5.38	KS	K	Homoeopathic concept of immunity	Explain the concept of immunity and hypersensitivity and correlate it with the Homoeopathic concepts of susceptibility	C1	NK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Organon of Medicine

5.6. Neoplasia-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomU G-Path M.6.1	KS	K	Definition of Neoplasia	Define the term “Neoplasia”	C 1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.6.2	KS	K	Nomenclature of tumours	Explain the nomenclature of tumours	C 1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	

HomU G-Path M.6.3	KS	K	Classification of tumours	Classify tumours based on histogenesis and anticipated behaviour	C 1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.6.4	KS	K	Special categories of tumours	State the special categories of tumours with examples	C 1	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.6.5	KS	K	Characteristics of benign and malignant neoplasms	State the characteristics of tumours	C 1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.6.6	KS	KH	Differentiating features of benign and malignant neoplasms	Differentiate benign and malignant neoplasms based on the clinical and gross features	C 2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.6.7	KS	KH		Differentiate benign and malignant neoplasms based on microscopic features	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.6.8	KS	K	Definition of “Differentiation”, “Anaplasia”	Define the terms “Differentiation”, “Anaplasia”	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	

HomU G-Path M.6.9	KS	KH	Differentiating features of benign and malignant neoplasms	Differentiate benign and malignant neoplasms based on their rate of growth	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.6.10	KS	KH		Differentiate benign and malignant neoplasms based on their spread - local invasion and metastasis	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.6.17	KS	K	Definition of Metastasis	Define the term "Metastasis"	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.6.18	KS	K	Routes of Metastasis	Discuss the routes of Metastasis with examples	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	Surgery
HomU G-Path M.6.19	KS	KH	Lymphatic spread of malignant tumours	Describe the mechanism of lymphatic spread of malignant tumours	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.6.20	KS	KH	Haematogenous metastasis	Describe the mechanism of Haematogenous spread of malignant tumours	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	

HomU G-Path M.6.21	KS	KH	Spread of cancer along body cavities and natural passages	Describe the mechanism of spread of cancer along body cavities and natural passages	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.6.22	KS	KH	Molecular basis of cancer	Describe Molecular basis of cancer	C2	NK	Lecture	NA	NA	
HomU G-Path M.6.23	KS	K	Definition of Carcinogenesis , Carcinogen	Define the terms “Carcinogenesis”, “Carcinogen”	C1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ	
HomU G-Path M.6.24	KS	K	Carcinogens	Enumerate the various types of carcinogens	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.6.25	KS	KH	Chemical Carcinogenesis	Describe the three sequential stages in chemical carcinogenesis	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ LAQ	
HomU G-Path M.6.26	KS	KH	Physical carcinogenesis	Describe the mechanism of physical carcinogenesis	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	

HomU G-Path M.6.27	KS	KH	Biological carcinogenesis	Describethe mechanism of biological carcinogenesis	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.6.28	KS	KH	Effects of tumour on the host	Describe the effects of tumour on the host	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.6.29	KS	K	Definition of Paraneoplastic syndromes	Define the term “Paraneoplastic syndromes”	C1	MK	Lecture	Viva Voce MCQ	Viva Voce MCQ SAQ	
HomU G-Path M.6.30	KS	KH	Paraneoplastic syndromes	State the various clinical syndromes included in Paraneoplastic syndromes	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.6.31	KS	KH	Definition of “Grading”, “Staging”	Define the terms “Grading”, “Staging”	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Surgery
HomU G-Path M.6.32	KS	KH	Tumour grading	Explain about the grading of tumour.	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Surgery
HomU G-Path M.6.33	KS	KH	Staging of tumours	Explain about the staging of tumour	C2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Surgery

HomU G-Path M.6.34	KS	K	Laboratory Diagnosis of Cancer	State the various methods of Laboratory diagnosis of tumours	C1	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.6.35	KS	K	Tumour markers	State the important liquid based biomarkers in tumour diagnosis	C1	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	
HomU G-Path M.6.36	KS	KH	Homoeopathic concept	Discuss about the miasmatic concept of neoplastic disorder	C 2	DK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	OM,MM,Repertory

5.7. Environmental and nutritional diseases-

Sl. No.	**Domain of Competency**	**Miller**	**Content**	**SLO**	**Bloom / Guilbert**	**Priority**	**TL MM**	**Assessment**		**Integration**
								F	**S**	
HomU G-Path M.7.1	KS	KH	Obesity	Define the term "Obesity"	C 2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Physiology Community medicine
HomU G-Path M.7.2	KS	KH	Obesity	Describe the etiopathogenesis of Obesity	C 2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Physiology Community medicine
HomU G-Path M.7.3	KS	KH	Pathogenesis of protein energy malnutrition	Describe the pathogenesis of protein energy malnutrition	C 2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Physiology Community medicine

HomU G-Path M.7.4	KS	KH	Difference between Kwashiorkor and marasmus	Enumerate the differences between Kwashiorkor and Marasmus	C 2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Physiology Community medicine
HomU G-Path M.7.5	KS	KH	Vitamin A	Describe the lesions in Vitamin A deficiency	C 2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Physiology Community medicine
HomU G-Path M.7.6	KS	KH	Vitamin C	Describe the lesions in Vitamin C deficiency	C 2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Physiology Community medicine
HomU G-Path M.7.7	KS	KH	Vitamin D	Describe the lesions in Vitamin D deficiency	C 2	MK	Lecture	Viva Voce MCQ SAQ	Viva Voce MCQ SAQ	Physiology Community medicine
HomU G-Path M.7.8	KS	KH	Vitamin E	Describe the lesions in Vitamin E deficiency	C 2	DK	Lecture	Viva Voce MCQ	Viva Voce MCQ	Physiology Community medicine
HomU G-Path M7.9	KS	KH	Vitamin K	Describe the lesions in Vitamin K deficiency	C 2	DK	Lecture	Viva Voce MCQ	Viva Voce MCQ	Physiology Community medicine
HomU G-Path M.7.10	KS	KH	Vitamin B1	Describe the lesions in Vitamin B1(Thiamine) deficiency	C 2	DK	Lecture	Viva Voce MCQ	Viva Voce MCQ	Physiology Community medicine
HomU G-Path M.7.11	KS	KH	Vitamin B2	Describe the lesions in Vitamin B2 (Riboflavin) deficiency	C 2	DK	Lecture	Viva Voce MCQ	Viva Voce MCQ	Physiology Community medicine

HomU G-Path M.7.12	KS	KH	Vitamin B3	Describe the lesions in Vitamin B3 (Niacin) deficiency	C 2	DK	Lecture	Viva Voce MCQ	Viva Voce MCQ	Physiology , Community medicine
HomU G-Path M.7.13	KS	KH	Vitamin B6	Describe the lesions in Vitamin B 6 (Pyridoxine) deficiency	C 2	DK	Lecture	Viva Voce MCQ	Viva Voce MCQ	Physiology , Community medicine

5.8. Diseases of the haematopoietic system, bone marrow and blood-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMU G-Path M. 8.1	KS	K	Red cell disorders	Define the term "Anaemia"" Megaloblastic Anaemia"	C 1	MK	Lecture	Viva MCQ	SAQ Vivavoce MCQ	Physiology
HOMU G-Path M. 8.2	KS	KH	Classification of Anaemia	State the patho-physiologic classification of anaemia	C 2	MK	Lecture	Viva voce, MCQ	LAQ SAQ Viva .MCQ	Physiology
HOMU G-Path M. 8.3	KS	K		State the morphologic classification of anaemia	C 1	MK	Lecture	Viva voce, MCQ	LAQSAQ. Viva MCQ	Physiology
HOMU G-Path M. 8.4	KS	KH		Explain the scheme of laboratory investigations for anaemia	C 2	MK	Lecture	Viva voce, MCQ	LAQ, SAQ. Viva . MCQ	Physiology Practice of medicine
HOMU G-Path M. 8.5	KS	K	Iron deficiency Anaemia	Define Iron deficiency Anaemia	C 1	MK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	Physiology

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMU G-Path M. 8.6	KS	KH		Describe the etio-pathogenesis of Iron deficiency anaemia	C 2	MK	Lecture	Viva voce, MCQ	LAQ SAQ. Viva . MCQ	
HOMU G-Path M. 8.7	KS	KH		Describe the laboratory findings of iron deficiency anaemia	C 2	MK	Lecture	Viva voce, MCQ	LAQ SAQ Viva MCQ	Practice of medicine
HOMU G-Path M. 8.8	KS	KH	Megaloblastic Anaemia	Describe the etio-pathogenesis of Megaloblastic anaemia	C 2	MK	Lecture	Viva voce, MCQ	LAQ SAQ Viva MCQ	
HOMU G-Path M. 8.9	KS	KH		Describe the laboratory diagnosis of Megaloblastic Anaemia	C 2	MK	Lecture	Viva voce, MCQ	LAQ SAQ. Viva . MCQ	Practice of medicine
HOMU G-Path M. 8.10	KS	K	Pernicious Anaemia	Define Pernicious Anaemia	C 1	DK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	
HOMU G-Path M. 8.11	KS	KH		Discuss the etio- pathogenesis of Pernicious Anaemia	C 2	DK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	
HOMU G-Path M. 8.12	KS	KH		Discuss the laboratory diagnosis of Pernicious Anaemia	C 2	DK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	Practice of medicine
HOMU G-Path M. 8.13	KS	K	Haemolytic Anaemia	Define the term “Haemolytic Anaemia”	C 1	MK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-PathM. 8.14	KS	KH		Classify Haemolytic Anaemias	C2	MK	Lecture	Viva voce, MCQ	LAQ SAQ. Viva . MCQ	
HOMUG-PathM. 8.15	KS	KH		Describe laboratory evaluation of Haemolytic Anaemia	C 2	MK	Lecture	Viva voce, MCQ	LAQ SAQ. Viva . MCQ	
HOMUG-PathM. 8.16	KS	K	types of Haemoglobinopathies	Classify Haemoglobinopathies	C 1	DK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	
HOMUG-PathM. 8.17	KS	K	Sickle cell Anaemia	Define Sickle cell Anaemia	C 1	DK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	
HOMUG-PathM. 8.18	KS	KH		Discuss theetio- pathogenesis of sickle cell anaemia	C2	DK	Lecture	Viva voce, MCQ	LAQSAQ. Viva . MCQ	
HOMUG-PathM. 8.19	KS	KH		Discuss the laboratory findings of sickle cell anaemia	C 2	DK	Lecture	Viva voce, MCQ	LAQSAQ. Viva . MCQ	
HOMUG-PathM. 8.20	KS	K	Thalassemia	Define Thalassemia	C 1	MK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMU G-Path M. 8.21	KS	KH		Classify Thalassaemia	C 2	MK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	
HOMU G-Path M. 8.22	KS	KH		Discuss the pathophysiology of anaemia in Thalassemia	C 2	MK	Lecture	Viva voce, MCQ	LAQSAQ. Viva . MCQ	
HOMU G-Path M. 8.23	KS	KH		Describe the laboratory findings of Thalassaemia.	C 2	MK	Lecture	Viva voce, MCQ	LAQSAQ. Viva . MCQ	Practice of medicine
HOMU G-Path M. 8.24	KS	K	Aplastic anaemia.	Define the term "Aplastic anaemia"	C 1	DK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	
HOMU G-Path M. 8.25	KS	KH	.	State the etiology of Aplastic anaemia.	C 2	DK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	
HOMU G-Path M. 8.26	KS	KH		Describe laboratory findings of Aplastic anaemia.	C 2	DK	Lecture	Viva voce, MCQ	SAQ. Viva .MCQ	Practice of medicine
HOMU G-Path M. 8.27	KS	K	Polycythaemia	Define Polycythaemia	C 1	DK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMU G-Path M. 8.28	KS	KH	Classification of Polycythaemia	Classify Polycythaemia on the basis of etiology	C2	DK	Lecture ,	Viva voce, MCQ	SAQ. Viva . MCQ	
HOMU G-Path M. 8.29	KS	KH	laboratory diagnosis of Polycythaemia	Describe laboratory features of Polycythaemia	C2	DK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	Practice of medicine
HOMU G-Path M. 8.29	KS	K	WBC disorders	Define the terms "Leukocytosis" "Leukopenia", "Leukaemoid reaction", "Leukaemias"	C 1	MK	Lecture	Viva voce, MCQ	Viva MCQ	
HOMU G-Path M. 8.30	KS	KH	Leukaemia	Classify Leukaemias	C2	MK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	
HOMU G-Path M. 8.31	KS	K		Describe the aetiology of Leukaemia	C1	MK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	
HOMU G-Path M. 8.32	KS	KH	Leukaemia	Describe the laboratory diagnosis of Chronic Myeloid Leukaemia	C 2	MK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	Practice of medicine
HOMU G-Path M. 8.33	KS	KH		Describe the laboratory diagnosis of Acute Myeloid Leukaemia	C 2	MK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	Practice of medicine

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMU G-Path M. 8.34	KS	KH		Describe the laboratory diagnosis of Acute lymphoblastic Leukaemia	C 2	MK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	Practice of medicine
HOMU G-Path M. 8.35	KS	K	Haemorrhagic disorders	State the aetiology of bleeding disorders	C 1	MK	Lecture	Viva SAQ MCQ	Viva SAQ MCQ	
HOMU G-Path M. 8.36	KS	K		Define Haemophilia A	C 1	MK	Lecture	Viva MCQ	Viva MCQ	
HOMU G-Path M. 8.37	KS	K		Describe the laboratory features of Haemophilia A	C 1	MK	Lecture	Viva MCQ	SAQ. Viva . MCQ	Practice of medicine
HOMU G-Path M. 8.38	KS	K		Define the terms “Thrombocytopenia”, “Thrombocytosis”	C 1	MK	Lecture	Viva MCQ	Viva . MCQ	
HOMU G-Path M. 8.39	KS	K		State the causes of Thrombocytopenia	C 1	MK	Lecture	Viva SAQ MCQ	SAQ. Viva . MCQ	
HOMU G-Path M. 8.40	KS	KH	Plasma cell myeloma	Define multiple myeloma.	C 2	DK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMU G-Path M. 8.41	KS	KH	Plasma cell myeloma	Describe the laboratory diagnosis of Multiple myeloma	C 2	DK	Lecture	Viva voce, MCQ	SAQ. Viva . MCQ	Practice of medicine
HOMU G-Path M. 8.42	KS	K	Hodgkin's lymphoma	Discuss features of Hodgkin's lymphoma	C1	DK	Lecture	Viva SAQ MCQ	SAQ. Viva . MCQ	Practice of medicine
HOMU G-Path M. 8.43	KS	K		Explain the appearance of Reed Sternberg cell in tissues	C 1	DK	Lecture	Viva SAQ MCQ	SAQ. Viva . MCQ	
HOMU G-Path M. 8.44	KS	K		Discuss features of Non Hodgkin's lymphoma	C 1	NK	Lecture	Viva SAQ MCQ	NA	Practice of medicine
HOMU G-Path M. 8.45	KS	K	Splenomegaly	State the causes of Splenomegaly	C1	DK	Lecture	Viva SAQ MCQ	Viva SAQ MCQ	

5.9. Diseases of the Respiratory System

l. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 9.1	KS	K	Pulmonary Tuberculosis	Describe the three components of Primary complex or Ghon complex	C 1	MK	Lecture	Viva LAQ SAQ MCQ	LAQ SAQ Viva MCQ	Practice of medicine
HOMUG-Path M. 9.2	KS	K		Describe the fate of primary tuberculosis	C1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ Viva MCQ	
HOMUG-Path M. 9.3	KS	K		Describe the morphology of Secondary pulmonary tuberculosis	C1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ Viva MCQ	
HOMUG-Path M. 9.4	KS	K		Enumerate the differences between Primary tuberculosis and Secondary tuberculosis	C1	MK	Lecture	Viva SAQ MCQ	LAQ Viva SAQ MCQ	
HOMUG-Path M. 9.5	KS	K		Describe the fate of secondary pulmonary tuberculosis	C1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ Viva MCQ	
HOMUG-Path M. 9.6	KS	K		Discuss the diagnosis of pulmonary tuberculosis	C1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ Viva MCQ	Practice of medicine
HOMUG-Path M. 9.7	KS	K	Pneumonia	Define the term “Pneumonia”	C1	MK	Lecture	Viva MCQ	Viva MCQ	

l. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 9.8	KS	K		State the Anatomic classification of Pneumonia	C1	MK	Lecture	Viva SAQ MCQ	SAQ Viva MCQ	Practice of medicine
HOMUG-Path M. 9.9	KS	K		State the Aetiologic classification of Pneumonia	C1	MK	Lecture	Viva SAQ MCQ	SAQ Viva MCQ	Practice of medicine
HOMUG-Path M. 9.11	KS	KH		Discuss the morphologic features of lobar Pneumonia	C 2	MK	Lecture	Viva LAQ SAQ MCQ	LAQ SAQ Viva MCQ	
HOMUG-Path M. 9.12	KS	K		Discuss the morphologic features of bronchopneumonia	C1	MK	Lecture	Viva SAQ MCQ	Viva SAQ MCQ	
HOMUG-Path M. 9.16	KS	KH		State the complications of Pneumonia	C2	MK	Lecture	Viva voce, MCQ	SAQ Viva MCQ	Practice of medicine
HOMUG-Path M. 9.17	KS	K	Lung abscess	Define the term "Lung abscess"	C1	MK	Lecture	Viva MCQ	Viva MCQ	
HOMUG-Path M. 9.18	KS	KH		Describe aetiopathogenesis of lung abscess	C 2	MK	Lecture	Viva SAQ MCQ	Viva MCQ	Practice of medicine
HOMUG-Path M. 9.19	KS	KH		Explain the morphology of lung abscess	C2	DK	Lecture	Viva SAQ MCQ	Viva MCQ	
HOMUG-Path M. 9.20	KS	K	Obstructive lung diseases	Classify chronic obstructive lung diseases	C1	MK	Lecture	Viva SAQ MCQ	LAQ Viva SAQ MCQ	

l. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 9.21	KS	K	Chronic bronchitis.	Define the term "Chronic Bronchitis"	C1	MK	Lecture	Viva MCQ	SAQ Viva MCQ	
HOMUG-Path M. 9.22	KS	KH		Describe the etio-pathogenesis of chronic bronchitis	C2	MK	Lecture	Viva LAQ SAQ MCQ	LAQ SAQ Viva MCQ	Practice of medicine
HOMUG-Path M. 9.23	KS	KH		Describe the morphologic features of chronic bronchitis.	C 2	DK	Lecture	Viva SAQ MCQ	LAQ SAQ Viva MCQ	Practice of medicine
HOMUG-Path M. 9.24	KS	K	Emphysema	Define the term "Emphysema"	C1	MK	Lecture	Viva MCQ	SAQ Viva MCQ	
HOMUG-Path M. 9.25	KS	K		Classify Emphysema	C1	MK	Lecture	Viva voce, MCQ	LAQ Viva SAQ MCQ	
HOMUG-Path M. 9.26	KS	KH		Explain the aetio-pathogenesis of Emphysema	C2	MK	Lecture	Viva SAQ MCQ	LAQ Viva SAQ MCQ	Practice of medicine
HOMUG-Path M. 9.27	KS	K	Emphysema	Describe the morphologic features of emphysema.	C1	DK	Lecture	Viva SAQ MCQ	LAQ Viva SAQ MCQ	Practice of medicine
HOMUG-Path M. 9.28	KS	K	Bronchial Asthma	Define the term "Bronchial Asthma"	C1	MK	Lecture	Viva MCQ	SAQ Viva MCQ	

l. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 9.29	KS	K		Classify Bronchial Asthma	C1	MK	Lecture	Viva SAQ MCQ	LAQ Viva SAQ MCQ	
HOMUG-Path M. 9.30	KS	K		Enumerate the differences between Extrinsic Asthma and Intrinsic Asthma	C1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ Viva MCQ	Practice of medicine
HOMUG-Path M. 9.31	KS	KH		Describe the morphologic features of Bronchial asthma	C 2	MK	Lecture	Viva SAQ MCQ	LAQ Viva SAQ MCQ	
HOMUG-Path M. 9.32	KS	K	Bronchiectasis	Define the term "Bronchiectasis"	C1	MK	Lecture	Viva voce, MCQ	SAQ Viva MCQ	
HOMUG-Path M. 9.33	KS	KH		Describe the aetiopathogenesis of bronchiectasis	C 2	MK	Lecture	Viva voce, MCQ	SAQ Viva MCQ	Practice of medicine
HOMUG-Path M. 9.34	KS	K		Describe the morphology of bronchiectasis	C1	MK	Lecture	Viva voce, MCQ	SAQ Viva MCQ	
HOMUG-Path M. 9.35	KS	K	Pneumoconiosis	Define the term "Pneumoconioses"	C1	DK	Lecture	Viva MCQ	SAQ Viva MCQ	
HOMUG-Path M. 9.36	KS	K		Classify Pneumoconiosis	C1	DK	Lecture	Viva SAQ MCQ	SAQ Viva MCQ	
HOMUG-Path M. 9.37	KS	KH	coal worker's pneumoconiosis.	Describe the etio-pathogenesis of coal worker's pneumoconiosis.	C2	DK	Lecture	Viva SAQ MCQ	SAQ Viva MCQ	Practice of medicine

l. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 9.38	KS	K		Describe the morphologic features of coal worker's pneumoconiosis.	C1	DK	Lecture	Viva SAQ MCQ	SAQ Viva MCQ	
HOMUG-Path M. 9.39	KS	K	Lung cancer	Describe the aetiology of Lung cancer	C1	DK	Lecture	Viva SAQ MCQ	SAQ Viva MCQ	Practice of medicine
HOMUG-Path M. 9.40	KS	K		Describe the morphology of lung cancer	C1	DK	Lecture	Viva SAQ MCQ	SAQ Viva MCQ	
HOMUG-Path M. 9.41	KS	K		Explain the spread of lung cancer	C1	DK	Lecture	Viva SAQ MCQ	SAQ Viva MCQ	
HOMUG-Path M. 9.42	KS	KH		Describe the clinical features of lung cancer	C 2	NK	Lecture	Viva SAQ MCQ	NA	Practice of medicine, Surgery

5.10. Diseases of the oral cavity and salivary glands and gastrointestinal tract-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 10.1	KS	K		Definition of "Stomatitis", "Glossitis"	C 1	MK	Lecture	Viva MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 10.2	KS	K	Oral leukoplakia	Define the term "Oral leucoplakia"	C 1	MK	Lecture	Viva MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 10.3	KS	K		Describe the aetiology of Oral Leukoplakia	C 1	DK	Lecture	Viva SAQ MCQ	SAQ, MCQ, Viva	Practice of medicine, Surgery

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 10.4	KS	K		Describe the morphologic features of oral leukoplakia	C 1	NK	Lecture	Viva SAQ MCQ	SAQ, MCQ, Viva	Practice of medicine, Surgery
HOMUG-Path M. 10.5	KS	K	Diseases of GI system	Define reflux oesophagitis.	C1	MK	Lecture	Viva voce, MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 10.6	KS	KH	Reflux esophagitis	Describe the aetiopathogenesis of Reflux esophagitis	C 2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva voce	
HOMUG-Path M. 10.7	KS	KH		Describe the morphology of Reflux Oesophagitis	C 2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ MCQ Viva	
HOMUG-Path M. 10.8	KS	KH	Barrett's oesophagus	Describe the aetiopathogenesis, of Barrett oesophagus	C 2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva voce	Practice of medicine, Surgery
HOMUG-Path M. 10.9	KS	K		Describe the morphology of Barret oesophagus	C 1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	
HOMUG-Path M. 10.10	KS	K	Carcinoma oesophagus	Describe the aetiology of carcinoma oesophagus	C 1	NK	Lecture	NA	NA	Practice of medicine, Surgery

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 10.11	KS	K		Describe the morphology of Carcinoma of oesophagus	C 1	NK	Lecture	Viva SAQ MCQ	NA	
HOMUG-Path M. 10.12	KS	KH		Describe the spread of Carcinoma oesophagus.	C2	NK	Lecture	Viva SAQ MCQ	NA	Practice of medicine, Surgery
HOMUG-Path M. 10.13	KS	K	Gastritis	Classify Gastritis	C 1	MK	Lecture	Viva SAQ MCQ	Viva SAQ MCQ	
HOMUG-Path M. 10.14	KS	K	Gastritis	Describe the aetiopathogenesis of Acute gastritis	C 1	MK	Lecture	Viva SAQ MCQ	Viva MCQ	Practice of medicine, Surgery
HOMUG-Path M. 10.15	KS	K		Describe the aetiopathogenesis of Chronic gastritis	C 1	MK	Lecture	Viva SAQ MCQ	Viva MCQ	
HOMUG-Path M. 10.16	KS	K	Peptic ulcer	Define the term “Peptic ulcer”	C 1	MK	Lecture	Viva voce, MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 10.17	KS	KH		Describe the aetiopathogenesis of chronic peptic ulcer	C 2	MK	Lecture	Viva SAQ MCQ	SAQ MCQ Viva LAQ	Practice of medicine, Surgery

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 10.18	KS	KH		Describe the morphology of chronic peptic ulcer	C 2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	Practice of medicine, Surgery
HOMUG-Path M. 10.19	KS	KH		Describe the complications of Peptic ulcer	C2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	Practice of medicine, Surgery
HOMUG-Path M. 10.20	KS	KH		Discuss differences between gastric ulcer and duodenal ulcers.	C2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	
HOMUG-Path M. 10.21	KS	K	gastric carcinoma,	Describe the aetiology of Gastric carcinoma	C 1	DK	Lecture	Viva SAQ MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 10.22	KS	K	gastric carcinoma,	Describe morphology of gastric carcinoma	C 1	DK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	Practice of medicine, Surgery
HOMUG-Path M. 10.23	KS	K		Describe the spread of gastric carcinoma.	C 1	DK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	
HOMUG-Path M. 10.24	KS	K	Acute appendicitis	Define the term “Acute appendicitis”	C 1	MK	Lecture	Viva MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 10.25	KS	KH		Describe the etio-pathogenesis of acute appendicitis	C 2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ MCQ Viva	Practice of medicine, Surgery

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 10.26	KS	KH		Describe the morphology of Acute appendicitis	C2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ MCQ Viva	
HOMUG-Path M. 10.27	KS	KH	Inflammatory bowel disease	Describe the aetio-pathogenesis of Inflammatory bowel disease	C 2	MK	Lecture	Viva SAQ MCQ	SAQ, MCQ, Viva	Practice of medicine, Surgery
HOMUG-Path M. 10.28	KS	K		Describe the morphologic features of Crohn's disease	C 1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva voce	
HOMUG-Path M. 10.29	KS	K		Describe the morphologic features of Ulcerative colitis	C 1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	
HOMUG-Path M. 10.30	KS	K	Inflammatory bowel disease	Enumerate the differences between Crohn's disease and Ulcerative Colitis.	C 1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	
HOMUG-Path M. 10.31	KS	K		Discuss the complications of Inflammatory bowel disease	C 1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	
HOMUG-Path M. 10.32	KS	K	Carcinoma Colon	Describe the aetiology of Colorectal cancer	C 1	DK	Lecture	Viva MCQ	LAQ SAQ, MCQ, Viva	Practice of medicine, Surgery

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 10.33	KS	K		Describe the morphology of Colorectal cancer	C 1	DK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	
HOMUG-Path M. 10.34	KS	K		Describe the spread of Colorectal cancer	C 1	DK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	
HOMUG-Path M. 10.35	KS	K	Intestinal tuberculosis	Describe the pathology of Intestinal tuberculosis	C 1	DK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	

5.11. Diseases of liver, gall bladder and biliary ducts-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 11.1	KS	K	Liver Function Tests	Discuss the liver function tests alongwith clinical significance of each	C 1	MK	Lecture	OSPE Viva MCQ	OSPE LAQ SAQ MCQ Viva	
HOMUG-Path M. 11.2	KS	K	Jaundice	Define the term “Jaundice”	C 1	MK	Lecture	Viva MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 11.3	KS	K		State the pathophysiologic classification of jaundice.	C 1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 11.4	KS	K	Cholestatisis	Define Cholestasis	C 1	MK	Lecture	Viva voce, MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 11.5	KS	K	Alcoholic Liver Disease	Define the term "Alcoholic liver disease"	C 1	MK	Lecture	Viva voce, MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 11.6	KS	K		Explain the pathogenesis of alcoholic liver disease	C 1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	
HOMUG-Path M. 11.7	KS	K		Describe the morphologic spectrum of alcoholic liver disease	C 1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	Practice of medicine
HOMUG-Path M. 11.8	KS	K	Liver Cirrhosis	Define the term "Liver cirrhosis"	C 1	MK	Lecture	Viva voce, MCQ	LAQ SAQ, MCQViva	
HOMUG-Path M. 11.9	KS	K	Liver Cirrhosis	Classify Cirrhosis based on morphology and aetiology	C 1	DK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQViva	Practice of medicine
HOMUG-Path M. 11.10	KS	KH		Describe the morphology of Alcoholic cirrhosis	C 2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQViva	

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 11.11	KS	K	Hepatocellular Carcinomas	State the aetiology of Hepatocellular Carcinomas	C 1	DK	Lecture	Viva SAQ MCQ	Viva SAQ MCQ	
HOMUG-Path M. 11.12	KS	K		Describe the morphology of hepatocellular carcinoma.	C 1	DK	Lecture	Viva SAQ MCQ	Viva SAQ MCQ	Practice of medicine, Surgery
HOMUG-Path M. 11.13	KS	K	Cholelithiasis.	State the risk factors of cholelithiasis.	C 1	MK	Lecture	Viva SAQ MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 11.14	KS	KH		Describe the pathogenesis of cholelithiasis/ gall stones	C 2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	Practice of medicine, Surgery
HOMUG-Path M. 11.15	KS	K		Describe the various types of gall stones	C 1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	

5.12. Diseases of the pancreas-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 12.1	KS	K	Acute Pancreatitis	Define the term "Acute pancreatitis"	C 1	MK	Lecture	Viva MCQ	MCQ, Viva	
HOMUG-Path M. 12.2	KS	KH		Describe the aetio-pathogenesis of acute pancreatitis	C 2	MK	Lecture	Viva MCQ	MCQ, Viva	Practice of medicine, Surgery

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 12.3	KS	K		State the morphologic features of acute pancreatitis.	C 1	MK	Lecture	Viva voce, SAQ MCQ	MCQ, Viva voce	
HOMUG-Path M. 12.4	KS	K	Chronic Pancreatitis	Define the term "Chronic pancreatitis"	C 1	DK	Lecture	Viva voce, MCQ	MCQ, Viva	
HOMUG-Path M. 12.5	KS	KH		Describe the aetio-pathogenesis of chronic Pancreatitis	C 2	DK	Lecture	Viva voce, SAQ MCQ	MCQ, Viva voce	Practice of medicine, Surgery
HOMUG-Path M. 12.6	KS	K		State the morphologic features of Chronic Pancreatitis.	C 1	DK	Lecture	Viva voce, SAQ MCQ	MCQ, Viva	
HOMUG-Path M. 12.7	KS	K	Diabetes mellitus	Define the term "Diabetes mellitus"	C 1	MK	Lecture	Viva MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 12.8	KS	K		Enumerate the aetiologic classification of diabetes mellitus	C 1	DK	Lecture	Viva SAQ MCQ	MCQ Viva SAQ	
HOMUG-Path M. 12.9	KS	K		Describe the pathogenesis of Type1 diabetes mellitus	C 1	DK	Lecture	Viva MCQ SAQ	MCQ Viva SAQ	Practice of medicine
HOMUG-Path M. 12.10	KS	K		Describe the pathogenesis of Type 2 diabetes mellitus	C 1	DK	Lecture	Viva MCQ SAQ	MCQ Viva SAQ	Practice of medicine
HOMUG-Path M. 12.11	KS	K		Discuss the laboratory diagnosis of Diabetes Mellitus	C 1	MK	Lecture	Viva MCQ SAQ	LAQ MCQ Viva	Practice of medicine

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
									SAQ	
HOMUG-Path M. 12.12	KS	K		Describe the Acute metabolic complications of diabetes mellitus	C 1	MK	Lecture	Viva MCQ SAQ	LAQ MCQ Viva SAQ	Practice of medicine
HOMUG-Path M. 12.13	KS	K		Describe the Late systemic complications of diabetes mellitus	C 1	MK	Lecture	Viva MCQ SAQ	LAQ MCQ Viva SAQ	

5.13. Diseases of blood vessels and lymphatics-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 13.1	KS	K	Arteriosclerosis	Define Arteriosclerosis	C 1	MK	Lecture	Viva voce, MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 13.2	KS	K		State the types of Arteriosclerosis	C 1	MK	Lecture	Viva MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 13.3	KS	K	Atherosclerosis	Define the term “Atherosclerosis”	C 1	MK	Lecture	Viva MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 13.4	KS	KH		Describe the aetiology of Atherosclerosis	C 2	MK	Lecture	Viva MCQ SAQ	LAQ SAQ MCQ Viva	Practice of medicine

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 13.5	KS	KH		Describe the pathogenesis of Atherosclerosis	C 2	MK	Lecture	Viva MCQ SAQ	LAQ SAQ MCQ Viva	
HOMUG-Path M.13.6	KS	K	Atherosclerosis	Describe the morphologic features of Atherosclerosis	C 1	MK	Lecture	Viva MCQ SAQ LAQ	LAQ SAQ, MCQ, Viva	
HOMUG-PathM.13.7	KS	K	Hypertension.	Define the term "Hypertension"	C 1	MK	Lecture	Viva MCQ	SAQ, MCQ, Viva	Practice of medicine
HOMUG-Path M. 13.8	KS	K		Enumerate the aetiologic classification of Hypertension	C 1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	Practice of medicine
HOMUG-Path M. 13.9	KS	KH		Describe the aetio-pathogenesis of Primary/essential Hypertension	C 2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	Practice of medicine
HOMUG-Path M. 13.10	KS	KH		Describe the aetio-pathogenesis of Secondary Hypertension	C 2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva voce	
HOMUG-Path M. 13.11	KS	KH		State the major effects of systemic hypertension on the organs	C 2	MK	Lecture	Viva voce, SAQ MCQ	LAQ SAQ, MCQ, Viva voce	

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 13.12	KS	K	Aneurysm	Define the term "Aneurysm"	C 1	DK	Lecture	Viva voce, MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 13.13	KS	K		Classify Aneurysm	C 1	DK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	
HOMUG-Path M. 13.14	KS	KH	Aneurysm	Describe the clinical effects of aneurysms	C 2	DK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	
HOMUG-Path M. 13.15	KS	K	Tumors of blood vessels	State the benign tumours of blood vessels	C 1	NK	Lecture	Viva voce, MCQ	NA	
HOMUG-Path M. 13.16	KS	K		State the malignant tumours of blood vessels	C 1	NK	Lecture	Viva voce, MCQ	NA	
HOMUG-Path M. 13.17	KS	K		Define the term "Lymphangitis"	C 1	NK	Lecture	Viva voce, MCQ	Viva MCQ	

5.14. Diseases of cardiovascular system-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M. 14.1	KS	K	Ischaemic Heart Disease	Define the term "Ischaemic Heart Disease"	C 1	MK	Lecture	Viva voce, MCQ	SAQ, MCQ, Viva	
HomUG-Path M. 14.2	KS	KH		Describe the etio-pathogenesis of Ischaemic Heart Disease	C 2	MK	Lecture	Viva MCQ SAQ	LAQ SAQ, MCQ, Viva	Practice of medicine
HomUG-Path M. 14.3	KS	K		State the effects of Myocardial ischaemia	C 1	MK	Lecture	Viva MCQ SAQ	LAQ SAQ, MCQ, Viva	Practice of medicine
HomUG-Path M. 14.4	KS	K	Angina Pectoris	Define the term "Angina Pectoris"	C 1	MK	Lecture	Viva voce, MCQ	SAQ, MCQ, Viva	
HomUG-Path M. 14.5	KS	K		Describe Stable or Typical angina	C 1	MK	Lecture	Viva voce, MCQ SAQ	SAQ, MCQ, Viva voce	
HomUG-Path M. 14.6	KS	K		Explain Prinzmetal's variant Angina	C 1	MK	Lecture	Viva voce, MCQ SAQ	SAQ, MCQ, Viva voce	
HomUG-Path M. 14.7	KS	K		Describe Unstable or Crescendo angina.	C 1	MK	Lecture	Viva voce, MCQ SAQ	SAQ, MCQ, Viva voce	

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M. 14.8	KS	KH	Myocardial Infarction.	Describe the aetio-pathogenesis of Myocardial Infarction.	C 2	MK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	Practice of medicine
HomUG-Path M. 14.9	KS	KH		Describe the gross changes in Myocardial infarction	C 2	DK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	
HomUG-Path M. 14.10	KS	KH		Describe the microscopic changes in Myocardial infarction	C 2	DK	Lecture	Viva SAQ MCQ	LAQ SAQ, MCQ, Viva	
HomUG-Path M. 14.11	KS	KH		Describe the diagnosis of Myocardial Infarction.	C 2	MK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	Practice of medicine
HomUG-Path M. 14.12	KS	K	Rheumatic heartdisease.	Define the terms “Rheumatic fever”, “Rheumatic heart disease”	C 1	MK	Lecture	Viva voce, MCQ	MCQ, Viva voce	
HomUG-Path M. 14.13	KS	KH		Describe etio-pathogenesisof Rheumatic heart disease.	C 2	MK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	Practice of medicine
HomUG-Path M. 14.14	KS	K		Describe the Cardiac lesions of Rheumatic heart disease	C 1	MK	Lecture	Viva voce, MCQ SAQ	LAQSAQ, MCQ, Viva voce	

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M. 14.15	KS	K	Rheumatic heart disease.	Describe the extra-cardiac lesions in Rheumatic heart disease.	C 1	MK	Lecture	Viva voce, MCQ SAQ	SAQ, MCQ, Viva voce	
HomUG-Path M. 14.16	KS	K		Enumerate the diagnostic criterion of Rheumatic heartdisease.	C 1	MK	Lecture	Viva voce, MCQ SAQ	LAQSAQ, MCQ, Viva voce	
HomUG-Path M. 14.17	KS	K	Infective Endocarditis	Define the term “Infective endocarditis”	C 1	DK	Lecture	Viva MCQ	SAQ, MCQ, Viva	
HomUG-Path M. 14.18	KS	KH	Infective Endocarditis	Describe the aetio-pathogenesis of Infective Endocarditis	C 2	DK	Lecture	Viva MCQ SAQ	SAQ, MCQ, Viva	Practice of medicine
HomUG-Path M. 14.19	KS	K		Describe the morphologic changes of Infective Endocarditis	C 1	NK	Lecture	Viva MCQ SAQ	NA	
HomUG-Path M. 14.20	KS	K		Enumerate the Duke criteria for diagnosis of Infective endocarditis	C 1	NK	Lecture	Viva MCQ SAQ	NA	
HomUG-Path M. 14.21	KS	KH		Define the term “Pericardial effusion”	C 2	MK	Lecture	Viva MCQ	MCQ, Viva	
HomUG-Path . 14.22	KS	KH		Define the term “Pericarditis”	C 2	MK	Lecture	Viva MCQ	MCQ, Viva	Practice of medicine

5.15. Diseases of kidney and lower urinary tract-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 15.1	KS	K	Renal function tests	Discuss renal function tests in detail	C 1	MK	Lecture	Viva MCQ	OSPE LAQ SAQ MCQ Viva voce	Practice of medicine
HOMUG-Path M. 15.2	KS	K	Glomerular disease	Define the term "Glomerulonephritis" "Nephrotic syndrome" "Acute nephritic syndrome"	C 1	MK	Lecture	Viva MCQ SAQ	MCQ Viva SAQ	
HOMUG-Path M. 15.3	KS	K	Acute nephritic syndrome.	Enumerate the aetiology of Acute nephritic syndrome	C 1	DK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	
HOMUG-Path M. 15.4	KS	KH	Acute nephritic syndrome.	Describe the clinical features of Acute nephritic syndrome.	C 2	DK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	Practice of medicine
HOMUG-Path M. 15.5	KS	K	Nephrotic syndrome	Enumerate the causes of Nephrotic syndrome	C 1	DK	Lecture	Viva MCQ SAQ	LAQ SAQ, MCQ, Viva	Practice of medicine

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 15.6	KS	K		Describe the characteristic features of Nephrotic syndrome	C 1	DK	Lecture	Viva MCQ SAQ	LAQ SAQ, MCQ, Viva	Practice of medicine
HOMUG-Path M. 15.7	KS	KH		Enumerate the differences between Nephrotic syndrome and Acute Nephritic syndrome	C 2	MK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	
HOMUG-Path M. 15.8	KS	K	Glomerulonephritis	Define Glomerulonephritis	C 1	DK	Lecture	Viva MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 15.9	KS	KH	Acute Post-Streptococcal Glomerulonephritis	Describe the aetio-pathogenesis of Acute post-streptococcal glomerulonephritis.	C 2	MK	Lecture	Viva MCQ SAQ	LAQ SAQ, MCQ, Viva	Practice of medicine
HOMUG-Path M. 15.10	KS	K	Nephrolithiasis	State the types of Renal calculi	C 1	MK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	
HOMUG-Path M.15.11	KS	K	Nephrolithiasis	Describe the etio-pathogenesis of each type of renal stones	C 1	MK	Lecture	Viva MCQ SAQ	LAQ SAQ, MCQ, Viva	

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M.15.12	KS	K		Describe the morphology of each type of renal stones	C 1	MK	Lecture	Viva SAQ MCQ	LAQ SAQ MCQ Viva	
HOMUG-Path M.15. 13	KS	K	Urinary tract infections	Define the term "Acute pyelonephritis" "ureteritis", "Cystitis", "Urethritis"	C 1	MK	Lecture	Viva MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 15.14	KS	K	Renal Cell Carcinoma	Discuss the etiology of Renal Cell Carcinoma	C 1	DK	Lecture	Viva voce, MCQ SAQ	SAQ, MCQ, Viva voce	Practice of medicine, Surgery
HOMUG-Path M. 15.15	KS	K		Describe the morphology of Renal Cell Carcinoma	C 1	DK	Lecture	Viva voce, MCQ SAQ	SAQ, MCQ, Viva voce	
HOMUG-Path M. 15.16	KS	K	Wilm's tumour	Describe the morphology of Wilm's tumour	C 1	NK	Lecture	Viva voce, MCQ SAQ	NA	Practice of medicine, Surgery

5.16. Diseases of male reproductive system-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 16.1	KS	K	Inflammatory diseases	Define the terms "Orchitis", "Epididymitis"	C 1	MK	Lecture	Viva MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 16.2	KS	K	Testicular Tumors	Classify testicular tumors	C 1	DK	Lecture	Viva MCQ SAQ	SAQ, MCQ Viva	Practice of medicine, Surgery
HOMUG-Path M. 16.3	KS	K		Discuss the morphology of Germ cell tumors	C 1	DK	Lecture	Viva MCQ SAQ	SAQ, MCQ Viva	
HOMUG-Path M. 16.4	KS	K	Inflammatory diseases	Define the term "Prostatitis"	C 1	NK	Lecture	Viva MCQ	NA	
HOMUG-Path M. 16.5	KS	K		State the types of Prostatitis	C 1	NK	Lecture	Viva MCQ	NA	Practice of medicine, Surgery
HOMUG-Path M. 16.6	KS	KH	Benign Nodular Hyperplasia Of Prostate	Describe the etio-pathogenesis of Benign nodular hyperplasia of prostate	C 2	MK	Lecture	Viva MCQ SAQ	LAQ SAQ MCQ, Viva	Practice of medicine, Surgery
HOMUG-Path M. 16.7	KS	KH		Describe the pathology of Benign nodular hyperplasia of prostate	C 2	MK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	Practice of medicine, Surgery
HOMUG-Path M. 16.8	KS	K	Ca Prostate	Describe the aetiologyof Carcinoma of Prostate	C 1	NK	Lecture	Viva voce, MCQ SAQ	NA	

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 16.9	KS	KH		Describe the morphology of Carcinoma of Prostate	C 2	NK	Lecture	Viva voce, MCQ SAQ	NA	Practice of medicine, Surgery
HOMUG-Path M. 16.10	KS	KH	Ca Prostate	Explain the spread of Carcinoma of Prostate	C2	NK	Lecture	Viva MCQ SAQ	NA	

5.17. Diseases of the female genitalia and breast-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 17.1	KS	K	Cervicitis	Define the term "Cervicitis"	C 1	DK	Lecture	Viva MCQ	MCQ, Viva	OBG
HOMUG-Path M. 17.2	KS	K		State the types of Cervicitis	C 1	DK	Lecture	Viva MCQ	MCQ, Viva	
HOMUG-Path M. 17.3	KS	K		Define the term Endometritis.	C 1	DK	Lecture	Viva MCQ SAQ	MCQ Viva	
HOMUG-Path M. 17.4	KS	K		Define the term Endometriosis	C 1	DK	Lecture	Viva MCQ	MCQ, Viva	OBG

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 17.5	KS	KH		Define the term Leiomyomas	C 1	DK	Lecture	Viva MCQ SAQ	MCQ Viva SAQ	OBG
HOMUG-Path M. 17.6	KS	KH		Discuss the morphology of Leiomyoma uterus	C 1	DK	Lecture	Viva MCQ SAQ	MCQ Viva SAQ	OBG
HOMUG-Path M. 17.7	KS	K		Define the term ‘ Adenomyosis’	C 1	DK	Lecture	Viva MCQ SAQ	MCQ Viva	OBG
HOMUG-Path M. 17.8	KS	KH	Ovarian Tumors.	Classify ovarian tumours	C 1	MK	Lecture	Viva MCQ SAQ	LAQ MCQ Viva SAQ	OBG
HOMUG-Path M. 17.9	KS	K		Discuss the morphology of germ cell tumors of ovary	C 2	MK	Lecture	Viva MCQ SAQ	LAQ MCQ Viva SAQ	OBG
HOMUG-Path M. 17.10	KS	K		Discuss the morphology of serous tumors of ovary	C 2	MK	Lecture	Viva SAQ MCQ	LAQ SAQ MCQ, Viva	OBG
HOMUG-Path M. 17.11	KS	K		Discuss the morphology of mucinous tumors of ovary	C 2	MK	Lecture	Viva MCQ	LAQ SAQ, MCQ, Viva	OBG
HOMUG-Path M. 17.12	KS	KH		Describe the pathology of Fibroadenoma breast	C 2	MK	Lecture	Viva voce, MCQ	SAQ, MCQ,	

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
								SAQ,	Viva voce	
HOMUG-Path M. 17.13	KS	K	Tumors of breast	Classify breast tumors as per WHO	C 1	MK	Lecture	Viva MCQ SAQ	LAQ MCQ Viva SAQ	Surgery
HOMUG-Path M. 17.14	KS	K		Describe the etiology of Carcinoma Breast	C 1	MK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	Surgery
HOMUG-Path M. 17.15	KS	KH		Describe the morphologic features of Carcinoma Breast	C 2	MK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	

5.18. Diseases of the skin and soft tissue-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 18.1	KS	K	Tumors of skin	State the predisposing conditions of Squamous cell carcinoma	C 1	DK	Lecture	Viva voce, MCQ SAQ	SAQ, MCQ, Viva	
HOMUG-Path M. 18.2	KS	KH		Describe the pathology of squamous cell carcinoma of skin	C 2	DK	Lecture	Viva voce, MCQ SAQ	SAQ, MCQ, Viva voce	
HOMUG-Path M. 18.3	KS	K		State the pre-disposing factors for basal cell carcinoma (Rodent ulcer)	C 1	NK	Lecture	Viva voce, MCQ SAQ	SAQ, MCQ, Viva voce	
HOMUG-Path M. 18.4	KS	KH		Describe morphologic features of basal cell carcinoma of skin	C 2	NK	Lecture	Viva voce, MCQ SAQ	SAQ, MCQ, Viva voce	Practice of medicine, Surgery
HOMUG-Path M. 18.5	KS	KH	Soft tissue tumors	Describe morphologic features of lipoma.	C 2	MK	Lecture	Viva voce, MCQ	SAQ, MCQ, Viva voce	

5.19. Diseases of the musculo-skeletal system-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 19.1	KS	K	Bone tumors	Classify bone tumors	C 1	DK	Lecture	Viva voce, MCQ	SAQ, MCQ, Viva voce	
HOMUG-Path M. 19.2	KS	K	Bone tumors	Discuss morphology of osteosarcoma	C 1	MK	Lecture	Viva voce, MCQ	LAQ SAQ, MCQ, Viva voce	Practice of medicine
HOMUG-Path M. 19.3	KS	K	Osteo - arthritis	Define Osteo Arthritis	C 1	MK	Lecture	Viva voce, MCQ	MCQ, Viva voce	Practice of medicine
HOMUG-Path M. 19.4	KS	K	Rheumatoid arthritis	Define rheumatoid arthritis	C 1	MK	Lecture	Viva voce, MCQ	MCQ, Viva voce	Practice of medicine
HOMUG-Path M. 19.5	KS	K	Gout	Define Gout	C 1	MK	Lecture	Viva voce, MCQ	MCQ, Viva voce	

5.20. Diseases of endocrine glands-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 20.1	KS	KH	Thyroid function tests	Interpret the abnormalities in a panel containing thyroid function tests	C 2	MK	Lecture	Viva MCQ	OSPE MCQ, Viva SAQ	
HOMUG-Path M. 20.2	KS	K	Goitre	Define the term "Goitre"	C 1	MK	Lecture	Viva MCQ	SAQ, MCQ, Viva	
HOMUG-Path M. 20.3	KS	K		Describe the etio-pathogenesis of Goitre	C 2	MK	Lecture	Viva MCQ SAQ	LAQ SAQ, MCQ, Viva	Practice of medicine
HOMUG-Path M. 20.4	KS	K		Classify Goitre on the basis of morphology	C 1	MK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	Practice of medicine
HOMUG-Path M. 20.5	KS	KH	Goitre	Describe the morphology of Colloid Goitre	C 2	MK	Lecture	Viva voce, MCQ SAQ	LAQ SAQ, MCQ, Viva voce	
HOMUG-Path M. 20.6	KS	K		Describe the morphology of Multi-nodular Goitre	C 1	MK	Lecture	Viva MCQ SAQ	LAQ SAQ, MCQ, Viva	Practice of medicine

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 20.7	KS	K	Cushing syndrome	State the aetiologic types of Cushing syndrome	C 1	DK	Lecture	Viva MCQ	MCQ, Viva	Practice of medicine
HOMUG-Path M. 20.8	KS	K		Describe the clinical features of Cushing syndrome	C 1	DK	Lecture	Viva MCQ SAQ	SAQ MCQ, Viva	
HOMUG-Path M. 20.9	KS	K	Gigantism	Describe the features of Gigantism	C 1	DK	Lecture	Viva MCQ SAQ	SAQ, MCQ, Viva	
HOMUG-Path M. 20.10	KS	K	Acromegaly	Describe the features of Acromegaly	C 1	DK	Lecture	Viva MCQ SAQ	SAQ, MCQ, Viva	
HOMUG-Path M. 20.11	KS	K	Diabetes Insipidus	Describe the features of Diabetes Insipidus	C 1	DK	Lecture	Viva MCQ SAQ	SAQ, MCQ, Viva	
HOMUG-Path M. 20.12	KS	K	differences between Diabetes Mellitus and Diabetes Insipidus	Discuss differences between Diabetes Mellitus and Diabetes Insipidus	C 1	DK	Lecture	Viva MCQ SAQ	SAQ, MCQ, Viva	

5.21. Diseases of the nervous system-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom / Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HOMUG-Path M. 21.1	KS	K,	Meningitis	Define the term' Meningitis"	C 1	DK	Lecture	Viva MCQ	MCQ, Viva	
HOMUG-Path M. 21.2	KS	KH		Enumerate the CSF findings in Bacterial meningitis	C 1	DK	Lecture	Viva MCQ SAQ	SAQ, MCQ, Viva	
HOMUG-Path M. 21.3	KS	KH		Enumerate the CSF findings in Tubercular meningitis	C 1	DK	Lecture	Viva MCQ SAQ	SAQ, MCQ, Viva	
HOMUG-Path M. 21.4	KS	KH		Enumerate the CSF findings in Viral meningitis	C 1	DK	Lecture	Viva MCQ SAQ	SAQ, MCQ, Viva	
HOMUG-Path M. 21.5	KS	K	CNS tumors	Classify CNS tumours	C 1	NK	Lecture	Viva MCQ	NA	

5.22. Introduction to Microbiology-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M. 22.1	KS	K	Basic definitions	Define the terms "Microbiology", "Medical Microbiology "Clinical Microbiology".	C1	NK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 22.2	KS	K	Contributions of important scientists to Microbiology	List the contribution of important scientists to Microbiology	C1	NK	Lecture	Viva Voce	NA	
HomUG-Path M 22.3	KS	K	Koch's postulate	State the Koch's postulate	C1	MK	Lecture	Viva voce MCQ	SAQ Viva voce MCQ	
HomUG-Path M 22.4	KS	K	Normal Human microbiota	List the anatomical location of normal bacterial flora in the human body	C1	MK	Lecture	MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M. 22.5	KS	KH	Role of normal human microbiota	Explain the role of human microbiota in health and disease.	C2	MK	Lecture	MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 22.6	KS	KH	Role of probiotics	Explain the role of probiotics.	C2	MK	Lecture	MCQ Viva voce	MCQ Viva voce	

5.23. Bacterial structure, growth and nutrition-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M 23.1	KS	K	Morphology of bacteria	Explain the morphological characteristics of bacteria	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 23.2	KS	K	Classification of bacteria	Classify bacteria based on shape	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 23.3	KS	KH	Bacterial Cell structure	Describe the detailed structure of the bacterial cell envelope	C1	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M. 23.4	KS	K	Cell wall appendages	Define flagella	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 23.5	KS	KH		Describe the types of flagellar arrangement in a bacterial cell	C2	MK	Lecture	SAQ MCQ Viva voce	MCQ Viva voce	
HomUG-Path M. 23.6	KS	KH	Bacterial spore	Describe the structure of bacterial spore	C2	DK	Lecture	Viva voce MCQ SAQ	Viva voce MCQ SAQ	
HomUG-Path M. 23.7	KS	KH		Describe the types of bacterial spores based on shape, position of spores	C2	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	

HomUG-Path M. 23.8	KS	KH	Bacterial growth and nutrition	Describe bacterial growth curve	C2	DK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 23.9	KS	KH		Describe the classification of bacteria based on energy requirements	C2	DK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 23.10	KS	KH		Describe the classification of bacteria based on oxygen requirements	C2	DK	Lecture	Viva voce MCQ	SAQViva voce MCQ	
HomUG-Path M. 23.11	KS	KH		Describe the classification of bacteria based on temperature requirements	C2	DK	Lecture	Viva voce MCQ	Viva voce MCQ	

5.24. Sterilization and disinfection-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M 24.1	KS	K	Definitions	Define 'Sterilization', "Disinfection", "Asepsis", "Decontamination", "Bactericidal agents" ,"Bacteriostatic agents"	C1	MK	Lecture	Viva voce MCQ	SAQ Viva voce MCQ	
HomUG-Path M 24.2	KS	K	Methods of sterilization	Describe the various methods of sterilization	C1	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 24.3	KS	KH	Physical methods of sterilization	Describe the various physical methods of sterilization	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	

HomUG-Path M 24.4	KS	KH		Describe the procedure of sterilization using hot air oven	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 24.5	KS	KH		Describe the procedure of sterilization using Autoclave	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 24.6	KS	KH		Explain the uses of Pasteurization in the process of sterilization	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 24.7	KS	KH	Chemical methods of sterilization	Discuss on various types of chemical agents of sterilization	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	Community medicine
HomUG-Path M 24.8	KS	K		State the characteristics of disinfectant	C1	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	Community medicine

5.25. Staining, culture medias and methods-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M 25.1	KS	K	Staining methods	Discuss the various staining methods of bacteria	C1	MK	Lecture	MCQ Viva voce	MCQ Viva Voce SAQ	
HomUG-Path M 25.2	KS	KH		Discuss the steps of gram staining	C2	MK	Lecture	MCQ Viva voce	MCQ Viva Voce SAQ	
HomUG-Path M 25.3	KS	KH	Classification of bacteria	Classify bacteria based on gram staining property	C1	MK	Lecture	MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 25.4	KS	K	Staining methods	Discuss differences between gram positive and gram negative bacteria	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 25.5	KS	K	Staining methods	Discuss the steps of Acid fast staining	C1	MK	Lecture	SAQ MCQ Viva voce	MCQ Viva Voce SAQ	
HomUG-Path M 25.6	KS	K	Culture media	Describe types of culture media based on consistency with examples	C1	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 25.7	KS	K		Describe culture media based on constituents with examples	C1	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 25.8	KS	K		Describe culture media based on functional requirement with examples	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	

								Viva voce	Viva voce	
HomUG-Path M 25.9	KS	K	Culture methods	Enumerate various methods used for culturing bacteria.	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 25.10	KS	K		Describe various anaerobic culture methods	C2	DK	Lecture	Not to be assessed	SAQ MCQ Viva voce	

5.26. Infection and disease-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M 26.1	KS	K	Infection and Disease	Define the terms" infection" pathogen, pathogenesis, pathogenicity, Virulence", infectious disease	C1	MK	Lecture	Viva voce MCQ	SAQ Viva voce MCQ	
HomUG-Path M 26.2	KS	KH		Describe the various types of infections	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 26.3	KS	KH		Describe the sources of infection	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 26.4	KS	KH		Describe the methods of transmission of infection	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	

HomUG-Path M 26.5	KS	K	Virulence of micro-organisms	State the factors influencing virulence of micro-organisms.	C1	MK	Lecture	Viva voce MCQ	LAQ SAQ Viva voce MCQ	
HomUG-Path M 26.6	KS	KH	Exotoxins and Endotoxins	Describe the features of exotoxins	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 26.7	KS	KH		Describe the features of Endotoxins	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 26.8	KS	KH		Differentiate the features of Exotoxins and Endotoxins	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 26.9	KS	K	Classification of infectious diseases	Describe the classification of infectious diseases	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 26.10	KS	K	Nosocomial infection	Define nosocomial infection	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 26.11	KS	K		Discuss some common nosocomial infections.	C1	MK	Lecture	SAQ MCQ	MCQ VIVA	

5.27. Gram positive bacterias-

Sl. No.	Domains of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M 27.1	KS	K	Staphylococci	Explain the morphology of Staphylococci	C1	MK	Lecture	Viva voce MCQ	SAQ Viva voce MCQ	
HomUG-Path M 27.2	KS	K		List the virulence factors of Staphylococcus aureus	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva	
HomUG-Path M 27.3	KS	KH		Explain the pathogenesis of staphylococcus aureus infections	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 27.4	KS	KH		Describe the laboratory diagnosis of staphylococcal infections	C2	DK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	Practice of medicine
HomUG-Path M 27.5	KS	K	Pneumococci	Explain the morphology of Pneumococci	C1	MK	Lecture	Viva voce MCQ	SAQ MCQ Viva voce	
HomUG-Path M 27.6	KS	KH		Describe the virulence factors of Pneumococci	C2	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 27.7	KS	KH		Describe the pathogenesis of Pneumococcus	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 27.8	KS	KH		Describe the laboratory diagnosis of Pneumococcal infections	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	

HomUG-Path M 27.9	KS	K	Streptococci	Explain the morphology of Streptococcus pyogenes	C1	MK	Lecture	Viva voce MCQ SAQ	SAQ MCQ Viva voce	
HomUG-Path M 27.10	KS	KH		Describe the virulence factors of Streptococcus pyogenes	C2	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 27.11	KS	KH		Explain the pathogenicity of Streptococcus pyogenes	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 27.12	KS	KH		Explain the pathogenesis of post streptococcal sequelae caused by streptococcus pyogenes	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 27.13	KS	KH		Describe the laboratory diagnosis of streptococcal infections	C2	DK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ	
HomUG-Path M 27.14	KS	K	Corynebacterium diphtheriae	Explain the morphology of Corynebacterium diphtheriae	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 27.15	KS	KH		Describe the pathogenicity of Corynebacterium diphtheriae	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 27.16	KS	K		Describe the laboratory diagnosis of diphtheria	C1	NK	Lecture	NA	NA	Practice of medicine

HomUG-Path M 27.17	KS	K	Bacillus anthracis	Explain the morphology of Bacillus anthracis	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 27.18	KS	KH		Describe the pathogenicity of Bacillus anthracis	C2	MK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M 27.19	KS	KH		Describe the clinical features of Human anthrax	C2	DK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 27.20	KS	KH		Describe the laboratory diagnosis of Human anthrax	C2	NK	Lecture	Not to be assessed	NA	
HomUG-Path M 27.21	KS	K	Bacillus cereus	Discuss the clinical manifestations of Bacillus cereus	C1	DK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 27.22	KS	K	Clostridium tetani	Explain the morphology of Clostridium tetani	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 27.23	KS	KH		Describe pathogenesis of Clostridium tetani	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva	
HomUG-Path M 27.24	KS	KH		Explain the Clinical manifestation of tetanus	C2	DK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva	Community medicine, Practice of medicine

HomUG-Path M 27.25	KS	K		Describe the Laboratory diagnosis of tetanus	C1	NK	Lecture	NA	NA	
HomUG-Path M 27.26	KS	K	Clostridium perfringens	Explain the morphology of Clostrium perfringens	C1	MK	Lecture	SAQ MCQ Viva voce	MCQ Viva voce	
HomUG-Path M 27.27	KS	KH		Describe the clinical manifestation of Clostridium perfringens	C2	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 27.28	KS	K		Describe laboratory diagnosis of Clostridium perfringens	C1	NK	Lecture	NA	NA	
HomUG-Path M 27.29	KS	K	Clostridium botulinum	Explain the morphology of Clostrium botulinum	C1	MK	Lecture	SAQ MCQ Viva voce	MCQ Viva voce	
HomUG-Path M 27.30	KS	KH		Describe pathogenicity of Clostridium botulinum	C2	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 27.31	KS	K		Describe laboratory diagnosis of Clostridium botulinum	C1	NK	Lecture	NA	NA	
HomUG-Path M 27.32	KS	KH	Clostridium Difficile	Describe the pathogenicity of Clostridium difficile	C2	NK	Lecture	NA	NA	

5.28. Gram negative bacterias-

Sl.No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M 28.1	KS	K	Neisseria gonorrhoeae	Explain the morphology of Neisseria gonorrhoeae	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 28.2	KS	KH		Describe the pathogenesis of Neisseria gonorrhoeae	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 28.3	KS	K		Describe the laboratory diagnosis of Neisseria gonorrhoeae	C1	NK	Lecture	NA		
HomUG-Path M 28.4	KS	K	Neisseria meningitidis	Explain the morphology of Neisseria meningitidis	C1	MK	Lecture	Viva voce MCQ	SAQ Viva voce MCQ	
HomUG-Path M 28.5	KS	KH		Describe the clinical spectrum of meningococcal infections	C2	MK	Lecture	SAQ Viva voce MCQ	SAQ Viva voce MCQ	
HomUG-Path M 28.6	KS	K		Describe the laboratory diagnosis of Neisseria meningitidis	C1	NK	Lecture	NA		
HomUG-Path M 28.7	KS	K	Escherichia coli	Explain the morphology of Escherichia coli	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 28.8	KS	KH		Describe the virulence factors of Escherichia coli	C2	MK	Lecture	SAQ MCQ	MCQ Viva Voce	

HomUG-Path M 28.9	KS	KH		Describe the pathogenicity of Escherichia coli	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 28.10	KS	KH		Describe the clinical syndromes caused by Escherichia coli	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 28.11	KS	KH		Describe the laboratory diagnosis of Escherichia coli	C2	MK	Lecture	Viva voce MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 28.12	KS	KH	Shigella	Describe the pathogenicity of Shigella	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 28.13	KS	KH		Describe the clinical manifestations of Shigellosis.	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 28.14	KS	K		Describe the laboratory diagnosis of Shigellosis.	C1	DK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M 28.15	KS	K	Salmonellae	Explain the morphology of Salmonellae	C1	MK	Lecture	SAQ MCQ Viva voce	MCQ Viva voce	
HomUG-Path M 28.16	KS	KH		Describe the antigenic structure of Salmonellae	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	

HomUG-Path M 28.17	KS	KH		State the clinical syndromes caused by Salmonellae in humans	C2	MK	Lecture	Viva voce MCQ	Viva voce MCQ SAQ LAQ	Community medicine Practice of medicine
HomUG-Path M 28.18	KS	KH		Describe the pathogenesis and clinical manifestations of Enteric fever	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 28.19	KS	KH		Explain the laboratory diagnosis of Salmonella infection	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	Practice of medicine
HomUG-Path M 28.20	KS	K	Klebsiella	Describe the morphology of Klebsiella pneumonia	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 28.21	KS	KH		Describe the pathogenicity of Klebsiella pneumoniae	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 28.22	KS	K		Describe the laboratory diagnosis of Klebsiella pneumoniae	C2	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 28.23	KS	KH	Proteus	Describe the pathogenicity of Proteus bacilli	C2	NK	Lecture	Not to be assessed		
HomUG-Path M 28.24	KS	KH	Yersinia	Describe the pathogenicity of Yersinia pestis	C2	NK	Lecture			
HomUG-Path M 28.25	KS	K	Vibrio cholera	Explain the morphology of Vibrio cholera	C1	MK	Lecture	Viva voce MCQ	MCQ Viva voce	

HomUG-Path M 28.26	KS	KH		Describe pathogenesis and clinical features of cholera	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	Community medicine, Practice of medicine
HomUG-Path M 28.27	KS	KH		Describe the laboratory diagnosis of Cholera	C1	DK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 28.28	KS	KH	Pseudomonas	Describe the pathogenicity of pseudomonas aeruginosa	C1	NK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M 28.29	KS	K	H.influenzae	State the diseases caused by H.influenzae	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 28.30	KS	K		Describe the laboratory diagnosis of H.influenzae	C1	NK	Lecture	Not to be assessed		
HomUG-Path M 28.31	KS	K	Bordetella pertussis	Explain the morphology of Bordetella pertussis	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 28.32	KS	KH		Describe the clinical manifestation of B.pertussis	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	Community medicine Practice of medicine
HomUG-Path M 28.33	KS	K		Describe the laboratory diagnosis of Bordetella Pertussis	C1	DK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	

HomUG-Path M 28.34	KS	K	Brucella	Explain the morphology of Brucellae	C1	DK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 28.35	KS	KH		Describe the pathogenesis of Brucellosis.	C2	DK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M 28.36	KS	K		Describe the laboratory diagnosis of Brucellae	C1	NK	Lecture	NA	NA	
HomUG-Path M 28.37	KS	K	Helicobacter pylori	Describe the morphology of Helicobacter pylori	C1	NK	Lecture	NA	NA	
HomUG-Path M 28.38	KS	KH		Describe the pathogenicity of Helicobacter pylori infection	C2	DK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 28.39	KS	K		Describe the laboratory diagnosis of Helicobacter pylori infection	C1	NK	Lecture	NA	NA	
HomUG-Path M 28.40	KS	K	Rickettsiae	Discuss the human diseases caused by Rickettsiae group of organism	C1	DK	Lecture	MCQ Viva voce	MCQ Viva voce	
HomUG-Path M 28.41	KS	K	Chlamydia	Describe the diseases caused by chlamydia	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	

5.29. Acid fast bacterias-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M. 29.1	KS	K	Mycobacterium tuberculosis	Explain the morphology of Mycobacterium tuberculosis	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 29.2	KS	KH		Explain the pathogenesis of Mycobacterium tuberculosis	C2	DK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	Community medicine, Practice of medicine
HomUG-Path M. 29.3	KS	KH		Describe the pathology of Primary tuberculosis	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M. 29.4	KS	KH		Explain pathology of Secondary tuberculosis	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M. 29.5	KS	K		Explain laboratory diagnosis of Mycobacterial tuberculosis	C1	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M. 29.6	KS	K	Mycobacterium leprae	Explain the morphology of Mycobacterium leprae	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 29.7	KS	KH		Discuss the pathology of Leprosy	C2	MK	Lecture	Viva voce MCQ	SAQ Viva voce	

									MCQ LAQ	
HomUG-Path M. 29.8	KS	KH		Differentiate between Lepromatous and Tuberculoid leprosy	C2	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ LAQ Viva voce	Community medicine, Practice of medicine
HomUG-Path M. 29.9	KS	K		Describe the laboratory diagnosis of Mycobacterium Leprae	C1	DK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M. 29.10	KS	KH		Discuss Lepromin test	C2	DK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	

5.30. Spirochaetes

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M. 30.1	KS	K	Treponema pallidum	Explain the morphology of Treponema pallidum	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 30.2	KS	KH		Describe the pathogenesis of Syphilis	C2	MK	Lecture	SAQ MCQViva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M. 30.3	KS	KH		Describe the clinical manifestations of Syphilis	C2	MK	Lecture	SAQ MCQViva voce	LAQ SAQ MCQ Viva voce	Practice of medicine

HomUG-Path M. 30.4	KS	KH		Describe the laboratory diagnosis for syphilis	C2	DK	Lecture	SAQ MCQ Viva voce	SAQ MCQ LAQ Viva voce	
HomUG-Path M. 30.5	KS	K	Non venereal treponematoses	State the three distinct forms of non venerealtrepanomatoses	C1	NK	Lecture	Not to be assessed		
HomUG-Path M. 30.6	KS	K		Describe the features of Endemic syphilis	C1	NK	Lecture	NA		
HomUG-Path M. 30.7	KS	K		Describe the features of Yaws	C1	NK	Lecture			
HomUG-Path M. 30.8	KS	K		Describe the features of Pinta	C1	NK	Lecture			
HomUG-Path M. 30.9	KS	K	Borrelia	Mention the types of Borrelia	C1	NK	Lecture	NA	NA	
HomUG-Path M. 30.10	KS	K		State the diseases caused by Borrelia	C1	NK	Lecture	NA		
HomUG-Path M. 30.11	KS	K	Leptospira	Explain the morphology of Leptospira	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 30.12	KS	KH		Describe pathogenicity of Leptospira	C2	MK	Lecture	SAQ MCQViva voce	SAQ MCQ Viva voce	

HomUG-Path M. 30.13	KS	KH		Describe the clinical manifestations of Leptospirosis	C2	MK	Lecture	MCQViva voce	MCQViva voce	

5.31. Fungi

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M. 31.1	KS	K	Fungi	State the characteristics of fungi	C1	MK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M. 31.2	KS	K		Classify fungi based on morphological forms	C1	DK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M. 31.3	KS	K		Classify fungi based on type of infection	C1	MK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M. 31.4	KS	K		Discuss the laboratory diagnosis of fungal infections	C1	DK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M. 31.5	KS	K		State examples for superficial mycoses	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 31.6	KS	K		State the types of Subcutaneous mycoses	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 31.7	KS	K		State four fungi causing Systemic mycoses	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 31.8	KS	K		State examples of fungi causing Opportunistic Mycoses	C1	DK	Lecture	Viva voce MCQ	Viva voce MCQ	

HomUG-Path M. 31.9	KS	KH		Describe the pathogenesis of Candidiasis	C2	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M. 31.10	KS	KH	Homoeopathic concept	Explain the significance of susceptibility in fungal infections	C2	NK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	Organon of medicine

5.32. Parasitology: Introduction to Parasitology, Protozoans

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M 32.1	KS	K	Introduction to parasitology	Define the terms "parasite","Host"	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 32.2	KS	K		State the types of parasites with examples	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 32.3	KS	K		State the types of Host with examples	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 32.4	KS	K		List the three categories of host parasite relationship	C1	MK	Lecture	Viva voce MCQ	SAQ Viva voce MCQ	
HomUG-Path M 32.5	KS	K		Define the terms Symbiosis,Commensalism,Parasitism	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 32.6	KS	K	Protozoa – Intestinal – Entamoeba histolytica	Describe the morphology of Entamoeba histolytica	C1	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	

HomUG-Path M 32.7	KS	KH		Describe the life cycle of Entamoeba histolytica	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 32.8	KS	KH		Describe the clinical manifestations of Entamoeba histolytica	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 32.9	KS	KH		Enumerate the differences between Amoebic dysentery and Bacillary dysentery	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 32.10	KS	K		Describe the laboratory diagnosis of amoebiasis	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 32.11	KS	K	Protozoa – Intestinal - Giardia lamblia	Describe the morphology of Giardia lamblia	C1	DK	Lecture	Viva voce MCQ	SAQViva voce MCQ	
HomUG-Path M 32.12	KS	KH		Describe the life cycle of Giardia lamblia	C1	DK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M 32.13	KS	KH		Describe the pathogenicity and clinical features of Giardia lamblia	C2	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 32.14	KS	K	Protozoa – Urogenital – Trichomonas vaginalis	Describe the morphology of Trichomonas vaginalis	C1	DK	Lecture	Viva voce MCQ	SAQViva voce MCQ	
HomUG-Path M 32.15	KS	KH		Describe the life cycle of Trichomonas vaginalis	C1	DK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M 32.16	KS	KH		Describe the pathogenesis of Trichomonas vaginalis	C2	DK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	OBG

HomUG-Path M 32.17	KS	K	Blood and Tissues – plasmodium - species	Explain the life cycle of Plasmodium species	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 32.18	KS	KH		Describe the pathogenesis Plasmodium species	C2	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 32.19	KS	KH		Describe the clinical features of malaria.	C2	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	Community medicine
HomUG-Path M 32.20	KS	K		Explain the laboratory diagnosis of malaria	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 32.21	KS	K	Blood and Tissues – Toxoplasma gondii	Describe the Mode of transmission of Toxoplasma gondii	C1	MK	Lecture	SAQ MCQ Viva voce	MCQ Viva voce	
HomUG-Path M 32.22	KS	KH		Describe the Pathogenesis of Toxoplasma gondii	C2	NK	Lecture			
HomUG-Path M 32.23	KS	KH		Describe the Clinical features of human toxoplasmosis	C2	DK	Lecture	SAQ MCQ Viva voce	MCQ Viva voce	
HomUG-Path M 32.24	KS	K		Describe the Lab diagnosis of human toxoplasmosis	C1	NK	Lecture	Not to be assessed		
HomUG-Path M 32.25	KS	K	Blood and Tissues –	Describe the Trypanosoma brucei	C1	NK	Lecture	SAQ MCQ	MCQ	

HomUG-Path M 32.26	KS	KH	Trypanosoma brucei	Describe the Life cycle of Trypanosoma brucei	C2	DK	Lecture	SAQ MCQ	MCQ	
HomUG-Path M 32.27	KS	KH		Describe the Pathogenecity of Trypanosoma brucei	C2	DK	Lecture	SAQ MCQ Viva voce	MCQ Viva voce	
HomUG-Path M 32.28	KS	KH		Describe the Clinical features of trypanosomiasis	C2	DK	Lecture	SAQ MCQ Viva voce	SAQMCQ Viva voce	
HomUG-Path M 32.29	KS	K		Describe the Lab diagnosis of trypanosomiasis	C1	NK	Lecture	Not to be assessed		
HomUG-Path M 32.30	KS	K	Blood and Tissues – Trypanosoma Cruzi	Describe the morphology of Trypanosoma Cruzi	C1	MK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M 32.31	KS	K		Describe the Life cycle of Trypanosoma Cruzi	C1	MK	Lecture	SAQ MCQ	SAQ MCQ LAQ	
HomUG-Path M 32.32	KS	KH		Describe the Pathogenicity of Trypanosoma Cruzi	C2	MK	Lecture	SAQ MCQ	SAQ MCQ LAQ	
HomUG-Path M 32.33	KS	KH		Describe the Clinical features of Chagas disease	C2	MK	Lecture	SAQ MCQ	SAQ MCQ LAQ Viva voce	Community medicine
HomUG-Path M 32.34	KS	K		Describe the Lab diagnosis of Chagas disease	C1	CK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	

HomUG-Path M 32.35	KS	K	Blood and Tissues – Leishmania species	Describe the morphology of Leishmania donovani	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 32.36	KS	KH		Describe the Life cycle of Leishmania donovani	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 32.37	KS	KH		Describe the pathogenicity of Leishmania donovani	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 32.38	KS	KH		Describe the clinical features of Leishmaniasis	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 32.39	KS	K		Describe the Laboratory diagnosis of Leishmaniasis.	C1	DK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	

5.33. Helminths-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M 33.1	KS	K	Helminths – Cestodes – Echinococcus granulosus	Describe the morphology of Echinococcus granulosis	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva	
HomUG-Path M 33.2	KS	KH		Describe the life cycle of Echinococcus granulosis	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva	
HomUG-Path M 33.3	KS	KH		Describe the pathogenesis of Echinococcus granulosis	C2	MK	Lecture	MCQ	LAQ SAQ MCQ Viva	
HomUG-Path M 33.4	KS	KH		Describe the clinical features of hydatid disease	C2	MK	Lecture	MCQ	LAQ SAQ MCQ Viva	
HomUG-Path M 33.5	KS	K		Describe Laboratory diagnosis of hydatid disease	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva	
HomUG-Path M 33.6	KS	K	Helminths – Cestodes – Taenia saginata and Taenia solium	Describe the morphological difference between T.saginata and T.solium	C1	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva	
HomUG-Path M 33.7	KS	KH		Describe the life cycle of Taenia saginata	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva	
HomUG-Path M 33.8	KS	KH		Describe the life cycle of Taenia solium	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva	

HomUG-Path M 33.9	KS	KH		Describe the pathogenicity and clinical features of taeniasis	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	Community medicine
HomUG-Path M 33.10	KS	K		Describe the lab diagnosis of taeniasis.	C1	DK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva	
HomUG-Path M 33.11	KS	K	Helminths – Trematodes – Paragonimuswestermani	Describe the morphology of Paragonimuswestermani	C1	DK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 33.12	KS	K		Describe the life cycle of Paragonimuswestermani	C1	DK	Lecture	SAQ MCQ	MCQ	
HomUG-Path M 33.13	KS	KH		Describe the pathogenicity and clinical features of Paragonimuswestermani	C2	DK	Lecture	SAQ MCQ Viva voce	MCQ Viva voce	
HomUG-Path M 33.14	KS	K		Describe the lab diagnosis of paragonimiasis	C1	NK	Lecture	Not to be assessed		
HomUG-Path M 33.15	KS	K	Helminths – Trematodes – Schistosoma haematobium	Describe the morphology of Schistosoma haematobium	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 33.16	KS	KH		Describe the life cycle of Schistosoma haematobium	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 33.17	KS	KH		Describe the pathogenicity and clinical features of Bilharziasis	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 33.18	KS	K		Describe the lab diagnosis of Bilharziasis	C1	DK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	

HomUG-Path M 33.19	KS	K	Helminths – Trematodes – F.hepatica	Describe the morphology of Fasciola hepatica	C1	MK	Lecture	SAQ MCQ Viva voce	MCQ Viva voce	
HomUG-Path M 33.20	KS	K		Describe the life cycle of Fasciola hepatica	C1	NK	Lecture	NA	NA	
HomUG-Path M 33.21	KS	KH		Describe the pathogenicity of Fascioliasis	C2	DK	Lecture	MCQ Viva voce	MCQ Viva voce	
HomUG-Path M 33.22	KS	K	Helminths – Nematodes – Ankylostoma duodenale	Describe the morphology of Ancylostoma duodenale	C1	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 33.23	KS	KH		Describe the life cycle of Ancylostoma duodenale	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 33.24	KS	KH		Describe the pathogenicity and clinical features of hook worm infection.	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	Community medicine
HomUG-Path M 33.25	KS	K		Describe the laboratory diagnosis of hook worm infection.	C1	DK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 33.26	KS	K	Helminth – Nematodes – Ascaris lumbricoides	Describe the morphology of Ascaris lumbricoides	C1	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 33.27	KS	KH		Describe the life cycle of Ascaris lumbricoides	C2	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	

HomUG-Path M 33.28	KS	KH		Describe the pathogenicity and clinical features of Ascariasis	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 33.29	KS	K		Describe laboratory diagnosis of Ascariasis	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 33.30	KS	K	Helminths – Nematodes – Enterobius vermicularis	Describe the morphology of Enterobius vermicularis	C1	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 33.31	KS	KH		Describe the life cycle of Enterobius vermicularis	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 33.32	KS	K		Describe the pathogenicity and clinical features of Enterobiasis	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 33.33	KS	K		Describe the laboratory diagnosis of Enterobiasis	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 33.34	KS	K	Helminths – Nematodes – Strongyloidesstercoralis	Describe the morphology of Strongyloidesstercoralis	C1	NK	Lecture	NA	NA	
HomUG-Path M 33.35	KS	KH		Describe the life cycle of Strongyloidesstercoralis	C1	NK	Lecture	NA	NA	
HomUG-Path M 33.36	KS	KH		List the diseases caused by S.stercoralis	C2	NK	Lecture	NA	NA	

HomUG-Path M 33.37	KS	K	Helminths – Nematodes –Trichuristrichiura	Describe the morphology of Trichuris trichiura	C1	DK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 33.38	KS	KH		Describe life cycle of Trichuris trichiura	C2	DK	Lecture	SAQ MCQ	MCQ	
HomUG-Path M 33.39	KS	KH		Describe the pathogenicity and clinical manifestation of Trichuritrichiura	C2	DK	Lecture	SAQ MCQ	MCQ	
HomUG-Path M 33.40	KS	K		Describe the lab diagnosis of trichuriasis	C1	NK	Lecture	Not to be assessed		
HomUG-Path M 33.41	KS	K	Helminths – Filarial Nematodes – Wuchereriabancrofti	Describe the morphology of Wuchereriabancrofti	C1	MK	Lecture	SAQ MCQViva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 33.42	KS	KH		Describe the life cycle of Wuchereriabancrofti	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 33.43	KS	KH		Describe pathogenesis of Wucheririabancrofti	C2	MK	Lecture	SAQ MCQViva voce	LAQ SAQ MCQViva voce	
HomUG-Path M 33.44	KS	K		Describe the lab diagnosis of Wuchereriasis	C1	MK	Lecture	SAQ MCQViva voce	LAQ SAQ MCQViva voce	
HomUG-Path M 33.45	KS	KH	Helminths – Filarial Nematodes – Brugiamalayi	Describe pathogenesis of Brugiamalayi	C2	NK	Lecture	Viva voce MCQ	Viva voce MCQ	

HomUG-Path M 33.46	KS	KH	Loa Loa	Describe pathogenesis of Loa Loa	C2	NK	Lecture	NA	NA	
HomUG-Path M 33.47	KS	KH	Onchocerca volvulus	Describe pathogenesis of Onchocerca volvulus	C2	NK	Lecture	NA	NA	
HomUG-Path M 33.48	KS	KH	Dracunculus medinensis	Describe pathogenesis of Dracunculus medinensis	C2	NK	Lecture	NA	NA	
HomUG-Path M 33.49	KS	KH	Homoeopathic concepts	Explain the Homoeopathic concepts in parasitic infections	C2	DK	Lecture	SAQ MCQ	SAQ MCQ	Organon of medicine
HomUG-Path M 33.50	KS	KH		Explain the application of Homoeopathic concepts in management of parasitic infections	C2	DK	Lecture	SAQ MCQ	SAQ MCQ	Organon of medicine

5.34. Virology : Introduction-

Sl.No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M 34.1	KS	K	Virology – Introduction - Structure	Describe the morphology of virus	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 34.2	KS	K	Virology – Introduction – Viral replication	Discuss the steps of viral replication	C1	DK	Lecture	Viva voce MCQ	SAQ Viva voce MCQ	
HomUG-Path M 34.3	KS	K	Virology – Introduction – Viral inclusion bodies	Describe the viral inclusion bodies with examples	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 34.4	KS	K	Pathogenesis of viral infections	Describe the pathogenesis of viral infections	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 34.5	KS	K	Virology – Introduction – Lab diagnosis of Viral infections	Discuss about cultivation of viruses	C1	NK	Lecture	Not to be assessed	Not to be assessed	

HomUG-Path M 34.6	KS	K	Virology – Introduction - Classification	Describe the classification of viruses based on type of nucleic acid	C1	MK	Lecture	SAQ MCQ Viva voce	LAQ SAQ MCQ Viva voce	
HomUG-Path M 34.7	KS	K	Virus host interactions and its Significance in Homoeopathy	State the various virus host interactions	C1	MK	Lecture	SAQ MCQ	MCQ Viva	
HomUG-Path M 34.8	KS	K	Bacteriophages	Explain the morphology of bacteriophage	C1	MK	Lecture	SAQ MCQ Viva voce	SAQ MCQ Viva voce	
HomUG-Path M 34.9	KS	K		Explain the significance of bacteriophages in medical microbiology	C1	MK	Lecture	SAQ MCQ	SAQ MCQ	

5.35. DNA viruses-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M 35.1	KS	K	DNA virus – Pox virus-	State the pox virus which infect humans	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 35.2	KS	K		Describe the clinical features of Molluscum contagiosum	C1	MK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M 35.3	KS	K	DNA virus – Papova virus-Human papillomavirus	Discuss the diseases caused by Human Papilloma virus	C1	MK	Lecture	SAQ MCQ	SAQ MCQ	

HomUG-Path M 35.4	KS	KH	DNA virus –Herpes virus- Herpes simplex virus	Explain the pathogenesis of Herpes simplex virus	C2	MK	Lecture	SAQ MCQ	MCQ	
HomUG-Path M 35.5	KS	K		Describe the clinical features of Herpes simplex virus infection	C1	MK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M 35.6	KS	K		Describe the laboratory diagnosis of Herpes virus infection	C1	MK	Lecture	SAQ MCQ	MCQ	
HomUG-Path M 35.7	KS	K	DNA virus –Herpes virus- Varicella-zoster	Describe the pathogenesis of Varicella zoster	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 35.8	KS	KH		Describe the clinical manifestation and complications of Chicken pox	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 35.9	KS	KH		Describe the pathogenesis of Herpes zosteror shingles	C2	MK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M 35.10	KS	K		Explain the laboratory diagnosis of Varicella-zoster infection	C1	MK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M 35.11	KS	K	DNA virus –Herpes virus- Cytomegaloviruses	Explain the morphology of Cytomegalovirus	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 35.12	KS	K		Describe the clinical features of Cytomegalovirus disease	C1	DK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 35.13	KS	K		Explain the laboratory diagnosis of Cytomegalovirus disease	C1	DK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M 35.14	KS	K	DNA virus –Herpes virus-Human herpes virus	List the two variants of Human Herpes Virus	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	

HomUG-Path M 35.15	KS	K		Explain the clinical features of Human Herpes virus	C1	MK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M 35.16	KS	K	DNA virus –Herpes virus-Epstein –Barr virus	List the clinical conditions caused by Epstein-Barr virus	C1	MK	Lecture	Viva voce MCQ	SAQ MCQ Viva voce	
HomUG-Path M 35.17	KS	K		Describe the pathogenesis of Epstein –Barr virus infection	C1	MK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M 35.18	KS	K		Describe the laboratory diagnosis of Epstein-Barr virus infection	C1	MK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M 35.19	KS	KH	DNA virus – Adenoviruses	Describe the pathogenicity and clinical manifestations of Adenoviruses	C2	MK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M 35.20	KS	K		Explain the laboratory diagnosis of Adenovirus disease	C1	DK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M 35.21	KS	K	DNA virus –Hepadna virus – Hepatitis B virus	Explain the morphology of Hepatitis B virus	C1	MK	Lecture	SAQ MCQ	SAQ MCQ LAQ	
HomUG-Path M 35.22	KS	K		Describe the mode of transmission of Hepatitis B virus infection	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 35.23	KS	K		Describe the pathogenesis of hepatitis B virus infection	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	

HomUG-Path M 35.24	KS	K		Describe the clinical features of hepatitis B virus infection	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	Community medicine, Practice of medicine
HomUG-Path M 35.25	KS	K		Explain the laboratory diagnosis of Hepatitis B virus infection	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	

5.36. RNA viruses-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M 36.1	KS	K	RNA virus – Orthomyxovirus-Influenza virus	Describe the morphology of Influenza virus	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 36.2	KS	KH		Describe the pathogenesis of Influenza virus	C2	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 36.3	KS	K		Describe the clinical features of Influenza virus infection	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	Community medicine, Practice of medicine
HomUG-Path M 36.4	KS	K		Explain the laboratory diagnosis of Influenza virus infection	C1	MK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M 36.5	KS	K	RNA virus – Paramyxovirus-Mumps	Explain the morphology of Mumps virus	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 36.6	KS	K		Describe the clinical features of mumps	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	Community medicine, Practice of medicine

HomUG-Path M 36.7	KS	K		Explain the complications of Mumps	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 36.8	KS	K		Describe the laboratory diagnosis of Mumps virus infection	C1	NK	Lecture	Not to be assessed		
HomUG-Path M 36.9	KS	K	RNA virus – Paramyxovirus-Measles	Explain the morphology of Measles virus	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 36.10	KS	KH		Explain the pathogenesis of Measles	C2	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 36.11	KS	K		Describe the clinical features and complications of Measles	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	Community medicine, Practice of medicine
HomUG-Path M 36.12	KS	K		Describe the laboratory diagnosis of Measles virus	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 36.13	KS	K	RNA virus – Paramyxovirus-Rubella virus	Explain the morphology of Rubella virus	`C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 36.14	KS	K		Describe the clinical features of Rubella virus infection	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 36.15				Describe the features of congenital Rubella syndrome	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 36.16	KS	K		Explain the laboratory diagnosis of Rubella	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M 36.17	KS	K	RNA virus – Paramyxovirus-RSV	Describe the morphology of Respiratory syncytial virus	C1	NK	Lecture	Not to be assessed		

HomUG-Path M 36.18	KS	KH		Describe the clinical features of Respiratory syncytial virus infection	C2	DK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M 36.19	KS	K	RNA virua – Corona virus	Explain the morphology of Coronavirus	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 36.20	KS	K		State the types of corona virus infecting humans	C1	MK	Lecture	Viva voce MCQ	LAQ SAQ Viva voce MCQ	
HomUG-Path M 36.21	KS	K		Describe the clinical features of Corona virus disease	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ Viva voce	
HomUG-Path M 36.22	KS	K		Explain the laboratory diagnosis of Corona virus disease	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M 36.23	KS	K	RNA virus – Rhabdovirus – Rabies virus	Explain the morphology of Rabies virus	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M 36.24	KS	K		Describe the mode of transmission of Rabies	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M. 36.25	KS	K		Describe the pathogenicity of Rabies	C1	MK	Lecture	SAQ MCQ	SAQ MCQ MCQ Viva voce	
HomUG-Path M. 36.26	KS	K		Describe the clinical stages of Rabies	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	Community medicine
HomUG-Path M. 36.27	KS	K		Explain the laboratory diagnosis of human rabies	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	

HomUG-Path M 36.28	KS	K	RNA virus –Picorna virus-Polio virus	Explain the morphology of Polio virus	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 36.29	KS	K		Describe the pathogenesis of Polio virus infection	C1	MK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M. 36.30	KS	K		Describe the clinical features of polio	C1	MK	Lecture	SAQ MCQ	SAQ MCQ	Community medicine
HomUG-Path M 36.31	KS	K		Describe the laboratory diagnosis polio	C1	MK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M. 36.32	KS	K	RNA virus –Arboviruses –	Describe the general features of Arboviruses	C1	NK	Lecture	NA	NA	
HomUG-Path M. 36.33	KS	K		Describe the types of Dengue	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M. 36.34	KS	K		Describe the pathogenesis and clinical classification of Dengue	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	Community medicine, Practice of medicine
HomUG-Path M 36.35	KS	K		Explain the laboratory diagnosis of Dengue	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M. 36.36	KS	K	RNA virus –Arbo virus – Chikungunya virus	Describe the clinical features of Chikungunya	C1	MK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M. 36.37	KS	K		Explain the laboratory diagnosis of Chikungunya	C1	MK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M. 36.38	KS	K	RNA virus –Arbo virus – Yellow fever	Describe the clinical features of Yellow fever	C1	NK	Lecture	Not to be assessed		

HomUG-Path M .36.39	KS	K	RNA viruses – Arbo virus – Japanese encephalitis -	Describe the clinical features of Japanese encephalitis	C1	DK	Lecture	SAQ MCQ	MCQ Viva voce	
HomUG-Path M. 36.40	KS	K	RNA viruses – Retro virus – HIV	Explain the morphology of Human immunodeficiency virus	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M. 36.41	KS	K		State the major antigens of HIV	C1	MK	Lecture	Viva voce MCQ	LAQ SAQ Viva voce MCQ	
HomUG-Path M. 36.42	KS	K		Describe the pathogenesis of HIV infection	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	
HomUG-Path M. 36.43	KS	K		Describe the clinical features of HIV infection	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	Practice of medicine
HomUG-Path M. 36.44	KS	KH		Describe confirmatory tests for diagnosis of HIV and AIDS	C1	MK	Lecture	SAQ MCQ	LAQ SAQ MCQ	Practice of medicine
HomUG-Path M. 36.45	KS	K	RNA viruses – Hepatitis virus – HAV	Describe the morphology of Hepatitis A virus	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 36.46	KS	K		Describe the pathogenesis of type A Hepatitis	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M. 36.47	KS	K		Describe the clinical features of type A hepatitis	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	

HomUG-Path M. 36.48	KS	K		Describe the laboratory diagnosis of type A hepatitis	C1	MK	Lecture	SAQ MCQ	SAQ MCQ Viva voce	
HomUG-Path M. 36.49	KS	K	RNA viruses – Hepatitis virus –C,D,E	Discuss the comparative features of the viral hepatitis type C,D and E viruses	C1	DK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 36.50	KS	K	Emerging/re-emerging infections	Describe the factors contributing to emerging and re-emerging infectious diseases	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	
HomUG-Path M. 36.51	KS	K		State the emerging infections in India	C1	MK	Lecture	Viva voce MCQ	Viva voce MCQ	

5.37. Homoeopathic correlation with microbiology-

Sl. No.	Domain of Competency	Miller	Content	SLO	Bloom/ Guilbert	Priority	TL MM	Assessment		Integration
								F	S	
HomUG-Path M 37.1	KS	K	Homoeopathic correlation	Discuss the correlation of study of microbiology and parasitologywith homoeopathic philosophy	C1	DK	Lecture	SAQ MCQ	SAQ MCQ	Organon of medicine
HomUG-Path M 37.2	KS	K		Discuss Homoeopathic prophylaxis	C1	DK	Lecture	SAQ MCQ	SAQ MCQ	Organon of medicine
HomUG-Path M 37.3	KS	K		Discuss genus epidemics	C1	DK	Lecture	SAQ MCQ	SAQ MCQ	Organon of medicine
HomUG-Path M 37.4	KS	K		Discuss the correlation of study of microbiology and parasitology with	C1	DK	Lecture	SAQ MCQ	SAQ MCQ	Materia medica

				homoeopathic materiamedica						
HomUG-Path M 37.5	KS	K		Discuss the correlation of study of microbiology and parasitologywith Repertory	C1	DK	Lecture	SAQ MCQ	SAQ MCQ	
HomUG-Path M 37.6	KS	K		Discuss the significance of study of microbiology and parasitologyfor homoeopathic physician	C1	DK	Lecture	SAQ MCQ	SAQ MCQ	Organon of medicine

5.38. Practicals and demonstration-

Sl. No.	Content	Competency/ Outcome	Entry behaviour	Specific Learning Objectives	Learner activity	Assessment
HomUG-Path M38.1	Blood grouping-A B O Grouping – Slide technique	Learner should be able to perform the blood grouping test of the blood sample	ABO blood group system RH blood group system	1.Perform estimation of blood group and Rh system using slide method 2.Interpret the results of experiment to determine the blood group and Rh grouping of blood sample.	1.Perform the procedure as per the methodology 2.Make entries into the pathology practical record	Viva voce OSPE Checklist
HomUG-Path M38.2	Estimation of Haemoglobin	Learner should be able to perform the estimation of Haemoglobin with accuracy and interpret the results	Normal Haemoglobin content in children, adult males, Adult females	1. Perform estimation of Haemoglobin using Sahli's haemoglobinometer 2. Interpret of Haemoglobin concentration of the blood sample	1.Perform the procedure as per the methodology 2.Make entries into the pathology practical record	Viva voce OSPE Checklist
HomUG-Path M38.3	Red Blood Cell Count	Learner should be able to perform the RBC count with accuracy and interpret the results	Normal values of RBC count in children, Adult males, Adult females	1. Perform the counting of RBC using haemocytometer 2. Calculate total RBC count of blood sample.	1.Perform the procedure as per the methodology 2.Make entries into the pathology practical record practical record	Viva voce OSPE Checklist

HomU G-Path M38.4	Total White blood cell count	Learner should be able to do the WBC count with accuracy and interpret the results	Normal values of WBC count in children,Adultmales,Adult females	1. Perform the counting of WBC using haemocytometer 2. Calculate total WBC count of blood sample.	1.Perform the procedure as per the methodology 2.Make entries into the pathology practical record	Viva voce OSPE Checklist
HomU G-Path M38.5	Differential count and morphology	Learner should be able to perform the Differential count with accuracy and interpret the results	Normal values in percentage of each type of white blood cell. Morphology of various WBC	1. Examine the blood smear for counting of differential leucocyte count. 2. Calculate the differential leukocyte count of blood sample.	1.Perform the procedure as per the methodology 2.Make entries into the pathology practical record	Viva voce OSPE Checklist
HomU G-Path M38.6	Erythrocyte sedimentation rate [Demonstration]	Learner should be able to explain the significance of ESR and interpret the results	Stages of sedimentation of RBCs Normal values of ESR	1. Observe the experiment using Westergren method. 2. Interpret the value of ESR of blood sample	1.Observe the procedure 2.Make entries into the pathology practical record	NA
HomU G-Path M38.7	Erythrocyte sedimentation rate [Demonstration]	Learner should be able to describe the significance of ESR and interpret the results	Stages of sedimentation of RBCs Normal values of ESR	1. Observe the experiment using Wintrobe method. 2. Interpret the value of ESR of blood sample	1.Observe the procedure 2.Make entries into the pathology practical record	NA
HomU G-Path M38.8	Bleeding time – Duke's method	Learner should be able to perform with accuracy and reliability the bleeding time of the given sample of blood	Normal value of Bleeding time	1. Perform the experiment using Duke's method 2. Calculate the bleeding time of blood sample.	1.Perform the procedure as per the methodology 2.Make entries into the pathology practical record practical record	Viva voce OSPE Checklist

HomU G-Path M38.9	Clotting time-fingertip method	Learner should be able to perform with accuracy and reliability the clotting time of the given sample of blood	Factors involved in blood clotting Sequence in clotting mechanism Normal value of clotting time	1. Perform the experiment using fingertip method 2. Calculate the clotting time of blood sample.	1.Perform the procedure as per the methodology 2.Make entries into the pathology practical record	Viva voce OSPE Checklist
HomU G-Path M38.10	Staining of thick and thin films [Demonstration]	Learner should be able to explain the procedure of staining of thin film,	Principle and technique of preparation of Staining of thick films	Observe the procedure of staining of thin blood film	1.Observe the procedure as per the methodology 2.Make entries into the pathology practical record	NA
HomU G-Path M38.11	Staining of thick and thick films [Demonstration]	Learner should be able to explain the procedure of staining of thick film,	Principle and technique of preparation of Staining of thin films	Observe the procedure of staining of thick blood film	1.Observe the procedure as per the methodology 2.Make entries into the pathology practical record	Viva voce OSPE Checklist
HomU G-Path M38.12	Platelet count [Demonstration]	Learner should be able to describe the significance of platelet count and interpret the results	Normal value of Platelet count Principle and technique of counting of Platelet	1. Observe the experiment of counting of Platelet of blood sample 2. Calculate platelet count of blood sample	1.Observe the procedure as per the methodology 2.Make entries into the pathology practical record	NA
HomU G-Path M38.13	Urine examination: Physical examination	Learner should be able to perform physical examination of urine with logical interpretation of results	Principle and technique of Physical examination of urine Clinical significance of physical examination of urine	1. Perform the physical examination of urine sample 2. Interpret the results	1.Perform the procedure as per the methodology 2.Make entries into the pathology practical record	Viva voce OSPE Checklist

HomU G-Path M38.14	Urine examination: Chemical examination	Learner should be able to perform chemical examination of given sample of urine with logical interpretation of results	Principle and technique of Chemical examination of urine Clinical significance of chemical examination of urine	1. Perform the chemical examination of urine for presence of glucose, proteins, ketones, bile derivatives and blood 2. Interpret the results	1.Perform the procedure as per the methodology 2.Make entries into the pathology practical record	Viva voce OSPE Checklist
HomU G-Path M38.15	Urine examination: Microscopic examination	Learner should be able to do microscopic examination of urine and interpret the results	Principle and technique of microscopical examination of urine Clinical significance of microscopical examination of urine	1. Perform the microscopical examination of urine sample 2. Interpret the results	1.Perform the procedure as per the methodology 2.Make entries into the pathology practical record	Viva voce OSPE Checklist
HomU G-Path M38.16	Examination of Faeces:Physical [Demonstartion]	Learner should be able to describe the procedure of physical examination of feaces	Principle and technique of physical examination of faeces Clinical significance of physical examination of faeces	1. Observe the procedure of physical examination of faeces 2. Interpret the results of Physical Examination of Faeces	1.Observe the procedure 2.Make entries into pathology practical record	NA
HomU G-Path M38.17	Examination of Faeces:Microscopic for ova and protozoa [Demonstration]	Learner should be able to describe the procedure of microscopical examination of faeces and interpret the results	Principle and technique of microscopic examination of faeces Clinical significance of microscopic examination of faeces	1. Observe the procedure of microscopical examination of faeces for ova and protozoa 2. Interpret the results of microscopical Examination of Faeces	1.Observe the procedure 2.Make entries into pathology practical record	NA

HomU G-Path M38.18	Examination of Faeces:Chemical (occult blood) [Demonstration]	Learner should be able to describe the procedure of chemical examination of faeces and interpret the results	Principle and technique of chemical examination of faeces Clinical significance of chemical examination of faeces	1. Observe the procedure of chemical examination of faeces 2. Interpret the results of chemical Examination of Faeces	1.Observe the procedure 2.Make entries into pathology practical record	NA
HomU G-Path M38.19	Semen analysis [Demonstration]	Learner should be able to list the physical characteristics and microscopic features of semen	Principle and technique of Semen analysis Clinical significance of semen analysis	1. Observe the procedure of examination of semen 2. Interpret the results of the test	1.Observe the procedure 2.Make entries into pathology practical record	Not to be assessed
HomU G-Path M38.20	**Microbiology:** Use of microscope	Learner should be familiar with the different parts of microscope and their uses	Parts of compound microscope	1. Identify the different parts of microscope 2. Learn the function of each part	1.Will use and familiarise with the parts of microscope 2.Make entries into the pathology practical record	Viva voce OSPE Checklist
HomU G-Path M38. 21	**Microbiology:** Demonstration of Methods of sterilisation: Using Hot air oven, Autoclave,	Learner should be able to explain the methods of sterilization using Hot air oven, Autoclave,	Agents of sterilization Principles of dry heat and moist heat in process of sterilization	1. Observe the method of sterilization using hot air oven 2. Observe the method of sterilization using autoclave 3. Observe the method of sterilization using flaming	1.Observe the procedure 2.Make entries into the pathology practical record	Viva voce OSPE Checklist
HomU G-Path M38. 22	**Microbiology:** Motility preparation [Demonstration]	Learner should be able to explain the procedure of motility preparation	Principle and technique of Motility preparation	1. Observe the procedure of Motility preparation 2. Interpret the results	1.Observe the procedure 2.Make entries into and pathology practical record	Not to be assessed

HomU G-Path M38. 23	**Microbiology**: Gram staining	Learner should be able to stain the given smear by gram stain and examine under microscope and interpret the results	Principle and technique of Gram staining	1. Perform gram staining on the given sample 2. Observe under the microscope 3. Interpret the results.	1.Perform the procedure 2.Make entries into pathology practical record	Viva voce OSPE Checklist
HomU G-Path M38. 24	**Microbiology**: Acid fast staining [Demonstration]	Learner should be able to list the steps in Acid fast staining	Principle and technique of Acid fast staining	1. To observe the procedure of Acid fast staining 2. To observe the slide for presence of acid fast bacteria .	1.Observe the procedure 2.Make entries into the pathology practical record	Not to be assessed
HomU G-Path M38. 25	Common culture medias: Preparation of common culture media [Demonstration]	Learner should be able to list the ingredients of culture medias	Principle and technique of culture media preparation	Observe the steps of preparation of common culture media	1.Observe the procedure 2.Make entries into the pathology practical record	Not to be assessed
Spotters						
HomU G-Path M38. 26	**Commonly used instruments / Equipments in pathology laboratory:** 1.Haemoglobinometer 2.RBC pipette 3.WBC pipette 4.Neubauer's chamber 5.ESR tubes:Wintrobe Westergren 6.Urinometer	Awareness of application and method of use of instruments,equipments in laboratory	Enumerate the commonly used instruments equipments in laboratory and its use	• Identify the instrument / Equipment • Enumerate the purpose/ use/utility of the instrument / Equipment	1.Identify,describe the parts and list the uses of the instrument / Equipment 2.Make entries into the pathology practical record	OSPE Checklist

	7.Hot air oven 8.Autoclave 9.Incubator 10.Petri dish 11.Centrifuge 12.Waterbath 13.Inoculating loop etc.					
HomUG-PathM38.27	**Interpretation of laboratory reports and its clinico pathological correlation** Complete Haemogram Urine reports Liver function tests Renal function tests Thyroid function tests Lipid profile Diabetic profile Serum cardiac biomarkers Enzyme markers for necrosis Serological tests, etc.	Learner should be able to interpret the values in the given laboratory reports	Significance of interpretation of laboratory tests for diagnosis	• Identify whether laboratory report is normal or abnormal in relation to physiological values • Identify the probable reason for abnormal values in laboratory report and its clinical significance	1.Study the laboratory reports 2.Interpret the values in the laboratory reports 3.Make entries into the pathology practical record	Viva voce OSPE Checklist
HomUG-PathM38.28	Exposure to latest equipment:Auto-analyzer, Cell counter, ELISA reader etc. [Demonstration]	Learner should be able to explain the utility of latest equipment	De novo topic	• Identify the equipment • Observe the functioning of the Equipment	1.Observe the procedure 2.Make entries into the pathology practical record	Not to be assessed

HomU G-Path M38. 29	**Histopathology**: (a)Demonstration of common slides Any 15	Learner should be able to do identify the slide and mention its distinguishing features	Histopathological changes of particular condition.	• Observe the histopathology slide • Identify the distinguishing features of the given histopathology slide	1.Identify the histopathology slide based on identification points. 2.Make entries into the pathology practical record	OSPE Checklist
HomU G-Path M38. 30	(b)Demonstration of gross pathological specimens / models Any 15	Learner should be able to identify the gross specimen	Gross pathological changes in specimen as per General pathology and Systemic pathology topics	• Identify the specimen • List three characteristic identification features of the specimen	1.Identify the gross pathological specimen based on identification points. 2.Make entries into the pathology practical record	OSPE Checklist

6. Teaching learning methods

Lectures (Theory)	Non-lectures (Practical/Demonstrative)
Lectures	Clinical demonstration
Group discussion	Practicals /Experiential learning
Integrated lectures	Problem based discussion
	Case based learning
	Tutorials/Seminars/Symposium
	Assignments
	Library reference
	Self-learning

Details of assessment

6.1 Overall Scheme of Assessment (Summative)

Sr. No	Professional Course	Term I (1-6 Months)		Term II (7-12 Months)		
1	Second Professional BHMS	PA I (end of 3 months)	TT I (end of 6 months)	PA II (end of 9 months)	FUE (end of 12 months)	
		20 Marks Viva	100 Marks Practical/ Viva i) Viva voce -50 marks ii) Practical – 50 marks	20 Marks Viva	200 marks theory	200 marks Practical+ Viva+ IA

PA: Periodical Assessment; TT: Term Test; FUE: Final University Examinations; IA: Internal Assessment

7.1 Number of papers and Mark Distribution for Final University Examination (FUE)

Sr. No.	Course Code	Papers	Theory	Practical/ Clinical	Viva Voce	Internal Assessment*	Grand Total
1	HomUG-Path M	02	200 marks*	100 marks	80 marks	20 marks (Marks of PA I + TT I + PA II)	400 marks

***Method of Calculation of Internal Assessment Marks for Final University Examination:**

Marks of IA- **(**Marks of PA-1 + Marks of TT + Marks of PA-2) / 140 X 20

7.2 Paper Layout

Summative assessment (FUE):

Theory- 200 marks

Paper I (100 Mark) General Pathology and Systemic Pathology		
1.	LAQ	50
2.	SAQ	40
3.	MCQ	10
Paper II (100) Microbiology and Parasitology		
1.	LAQ	50
2.	SAQ	40
3.	MCQ	10

7.3 Theme-wise distribution of questions for theory exam paper I

PAPER – 1						
Theme	**Topics**	**Term**	**Marks**	**LAQ's**	**SAQ's**	**MCQ's**
A	Cell Injury and cellular adaptation, Inflammation and repair and Homoeopathic concept	I	21	Yes	Yes	Yes
B	Neoplasia ,Immunopathology and Homoeopathic concept	I	21	Yes	Yes	Yes
C	Haemodynamic disorders ,Environmental and Nutritional diseases and Homoeopathic concept	I	17	Yes	Yes	Yes
D	Diseases of the haemopoetic system, bone marrow and blood,CVS system blood vessels and lymphatics	II	17	Yes	Yes	Yes
E	Diseases of Respiratory , GIT, Liver and gall bladder, Pancreas , kidney and lower urinary tract,Endocrine glands	II	17	Yes	Yes	Yes
F	Diseases of male and female reproductive system, skin and soft tissue, nervous, Musculo-skeletal system	II	7	No	Yes	Yes

7.4 Distribution of questions for theory exam paper II

PAPER – 2						
Theme	**Topics**	**Term**	**Marks**	**LAQ's**	**SAQ's**	**MCQ's**
A	Bacteriology introduction, Human microbiome, Infection and diseases ,culture medias and methods ,Sterilisation and disinfection.	I	12	No	Yes	Yes
B	Gram positive bacterias	I	17	Yes	Yes	Yes
C	Parasites-protozoans , Virology introduction	I	17	Yes	Yes	Yes
D	Gram negative bacterias, Acid fast bacterias ,Spirochaetes	II	21	Yes	Yes	Yes
E	DNA & RNA Viruses	II	17	Yes	Yes	Yes
F	Fungi and parasites –helminthes, Diagnostic procedures in Microbiology, Homoeopathic concept	II	16	Yes	Yes	Yes

7.5 Question paper blue print Paper I

A **Question Serial Number**	**B** **Type of Question**	**Question Paper Format** **(Refer table 7.4 for themes)**
Q1	Multiple Choice Questions(MCQ) 10 Questions 1 mark each All compulsory	1. Theme A 2. Theme B 3. Theme C 4. Theme C 5. Theme D 6. Theme D 7. Theme E

		8. Theme E 9. Theme F 10. Theme F
Q2	Short answer Questions (SAQ) Eight Questions 5 Marks Each All compulsory	1. Theme A 2. Theme A 3. Theme B 4. Theme B 5. Theme C 6. Theme D 7. Theme E 8. Theme F
Q3	Long answer Questions (LAQ) Five Questions 10 marks each All compulsory	1. Theme A 2. Theme B 3. Theme C 4. Theme D 5. Theme E

7.7 Question paper blue print Paper II

A Question Serial Number	B Type of Question	Question Paper Format (Refer table 7.4 for themes)
Q1	Multiple Choice Questions (MCQ) 10 Questions 1 mark each All compulsory	1. Theme A 2. Theme A 3. Theme B 4. Theme B 5. Theme C 6. Theme C 7. Theme D 8. Theme E 9.Theme E 10. Theme F
Q2	Short answer Questions (SAQ) Eight Questions 5 Marks Each All compulsory	1. Theme A 2.Theme A 3.Theme B 4. Theme C 5. Theme D 6. Theme D 7.Theme E 8.Theme F
Q3	Long answer Questions (LAQ) Five Questions 10 marks each All compulsory	1. Theme B 2. Theme C 3. Theme D 4. Theme E 5. Theme F

7.8 Details of practical assessment

	PRACTICAL EXAM				
1.	**Laboratory reports**		**Marks**	**Total marks**	**Time**
	Interpretation of laboratory reports and its clinico- pathological correlation: Complete Haemogram Urine reports Liver function tests Renal function tests Thyroid function tests Lipid profile Diabetic profile Serum cardiac biomarkers Enzyme markers for necrosis Serological tests **Any one of the above**	• Identify whether laboratory report is normal or abnormal in relation to physiological values • Discuss the probable reason for abnormal values in laboratory report and its clinical significance	3 7	10 marks	10 mins
2.	**EXPERIMENT:**			**Total marks**	**Time**
a. b. c. d. e f f. g. h. i.	Estimation of Haemoglobin % WBC -Total count RBC - Total count Differential count Bleeding time and Clotting time Determination of Blood group Physical examination of urine Chemical examination of urine Urine microscopy Gram staining **Any one of the above**	Procedural and Practical skills Result and Discussion	15 10	25 marks	30 minutes

3.	**Spotters (5):25 marks**				
	ANY FIVE SPOTTERS (Instruments/ Equipments/ Specimens / Models)	•Identify the spot •List the characteristic features/ utility of the spot.	2 3	5 marks X 5 = 25 marks	3 minutes for each spotting=15 minutes
4.	**Spotting –Slides (5): 25 marks**				
	Any five Slides (Histopathology/parasitology/microbiology)	•Identify the slide •List three features of the given slide	2 3	5 marks X 5 = 25 marks	3 minutes for each slide=15 minutes
5.	Journal or Practical record	------	----	15 marks	
	Total Practical marks			**100 marks**	

8. OSPE STATIONS

Station # 01 (Unobserved Station)
For Organizer:
Topic Specification: Lab report interpretation
Subject Material: Clinical scenario and Laboratory report
For Candidate:
Marks: 10 Time Allowed:10 minutes.
Task: Carefully read the given clinical scenario andLaboratory report and answer the questions:
Answer the following questions :
1) Identify whether laboratory report is normal or abnormal in relation to physiological values (02)
2) Discuss the probable reason for abnormal values in laboratory report and its clinical significance (03)

For Examiner:

Sr. No	Key	Max. Marks
1.	Identify whether laboratory report is normal or abnormal in relation to physiological values	2
2.	Discuss the probable reason for abnormal values in laboratory report and its clinical significance	3

STATION # 02 (UNOBSERVED STATION)

For Organizer:
TOPIC SPECIFICATION: Identification of Histopathological slide(5 nos)
SAMPLE MATERIAL:Histopathological slide

For Candidate:
Max. Marks: 05 Time Allowed: 03minutes for each slide
Task: Carefully identify the spotter -Histopathological slide and answer the following questions:
•Identify the histopathology slide (2)
•List three features of the given histopathology slide (3)

For Examiner:

Sr. No	Key	Max. Marks
1.	Identify the histopathology slide	2
2.	•List three features of the given histopathology slide	3

STATION # 03 (UNOBSERVED STATION)

For Organizer:
TOPIC SPECIFICATION: Identification of appliances: (2 nos)
SAMPLE MATERIAL:Appliances

For Candidate:
Max. Marks: 05 Time Allowed: 03minutes- for each spotter
Task: Carefully identify the spotter -Appliance and answer the following questions:
•Identify the spotter (1)
• Description of the appliance (2)
• Uses of the appliance (2)

For Examiner:

Sr. No	Key	Max. Marks
1.	Identification	1
2.	Description	2
3.	Uses	2

STATION # 04 (UNOBSERVED STATION)

For Organizer:
TOPIC SPECIFICATION: Gross specimens/models(2 nos)
SAMPLE MATERIAL: Gross specimen /model
For Candidate:
Max. Marks: 05 Time Allowed: 03minutes -for each spotter
Task: Carefully identify the specimen/model and answer the following questions:
•Identify the specimen (2)
•List three characteristic features of the specimen (3)

For Examiner:

Sr. No	Key	Max. Marks
1.	Specimen identification	2
2.	three characteristic features of the specimen	3

STATION # 05(UNOBSERVED STATION)

For Organizer:
TOPIC SPECIFICATION: Spotter-disinfectant
SAMPLE MATERIAL: disinfectant
For Candidate:
Max. Marks: 05 Time Allowed: 03minutes.
Task: Carefully identify the spotter –disinfectant and answer the following questions:
•Identify the disinfectant (2)
•Enumerate the uses of the disinfectant (3)

For Examiner:

Sr. No	Key	Max. Marks
1.	Identify the disinfectant	2
2.	Enumerate the uses of the disinfectant	3

STATION # 06 (OBSERVED STATION)
For Organizer:
TOPIC SPECIFICATION: Practical (haematology/urine/gram staining)
SAMPLE MATERIAL:Blood /Urine/Smeared slide

For Candidate:

Max.Marks: 25 Time Allowed: 30minutes.

Task: Carefully perform the experiment given

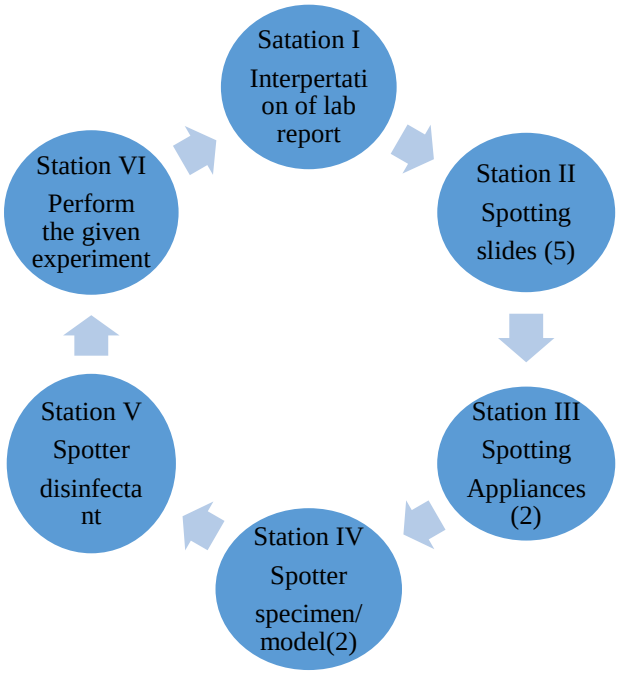
•Write the procedure and perform the experiment (15)

•Write the result obtained and its Discussion (10)

For Examiner:

Sr. No	Key	Max. Marks
1.	Procedural and Practical skills	15
2.	Result and Discussion	10

OSPE STATIONS



9. List of recommended text/reference books

Theory

1. Harsh Mohan (2023), *Textbook of Pathology* (9 th Edition). Jaypee Publisher (CBME)
2. Vinay Kumar and Abul K Abbas(2023) ,*Robbins & Kumar Basic Pathology* (11th SAE), Elsevier
3. Apurba S Sastry , Sandhya Bhat (2023), *Essentials of Medical Microbiology* (4 th Edition), ARYA Publications. (CBME) CBS publihers.
4. Ananthanarayan.R and Jayaram Paniker CK (2022), *Ananthanarayan and Paniker's Textbook of Microbiology* (12th Edition),Universities Press (CBME)
5. Chatterjee K D, (2023), *Parasitology (Protozoology and Helminthology*), (13th Edition),CBS publihers.
6. Ghosh Sougata (2021), *Paniker's Textbook of Medical Parasitology*,(9 th Edition), Jaypee Publisher (CBME)
7. Fiona Roberts , (2018),*Pathology Illustrated International* ,(8th Edition) , Elsevier
8. Nayak Ramadas(2017),*Essentials in Hematology and Clinical Pathology*,(2 nd Edition), Jaypee Publishers.
9. Sunil Kumar Mohanty (2014),*Text Book of Immunology*,(2 nd Edition),Jaypee Brothers Medical Publishers

Practical

1. Harsh Mohan , (RP 2023) *Practical Pathology*, (5th Edition). Jaypee Publisher (CBME)
2. Santosh Kumar Mondal , (2024) *Pathology Practicals With OSPE*, (2 nd Edition), CBS Publishers. (CBME)
3. Anamika Vyas, Sheethal. S (2023), *Concise Workbook in Practical Microbiology*, Jaypee Publishers. (CBME)
4. Dr Baveja C P(2021), *Practical Microbiology* for MBBS, (5 th Edition),ARYA Publications

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Subject code: HomUG PM-I

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