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## **Introduction to study guide**

This study guide book is developed for Medical undergraduates by consolidated efforts with an intention to help the medical students of MBBS CMH Lahore Medical College to manage their learning rather than provision of curriculum content information alone. The study guide also demonstrates a number of activities to help student to build her/his own learning portfolio that may be used to monitor learning progress and assessment as well. The study guide aims to promote self-regulated lifelong learning among students by giving them the control over their learning.

The pervasive curriculum aspects of undergraduates' competencies, assessment policies and curriculum coordinators are mapped in this guide book. Horizontal integration across the year gives better conceptual understanding while vertical integration promotes clinically relevant understanding. Medicine department CMH aims to improve health indicators of society by improvement of students and doctors in preventive health service provision and health education provision to society through community programs.

The study guide gives an overview of intended course outcomes and objectives in relation to the course content. The assessment methodology tailored to instructional strategy is provided.

This study guide has been carefully designed keeping in view PMC and NUMS curriculum and giving dedicated effort by faculty is done to make this guide tailored to student's needs. Students feedback has been sought and incorporated at all stages during study guide development. Curriculum is a living dynamic entity. Our aim is to improve it by every passing day. This humble effort of all faculty acts as a guiding light for our dear students.

## **Mission Statement**

To provide an excellent learning and teaching environment, inculcating ethical values and social responsibilities in undergraduate and postgraduate medical & dental students and nursing and allied health sciences students to enhance the level of comprehensive healthcare in the Army/Country

## **Vision Statement**

The vision of National University of Medical Sciences is to improve the quality of life through education, research, innovation, and healthcare, thereby, contributing to endeavors to make Pakistan and this world better place to live in.

## **Rationale of Curriculum**

The curriculum is designed to address both local and international needs. The curriculum is focused to prepare students for the international licensing exams and training abroad as well as empowering them to treat local patients with safety and efficiency. Doctors work as a healer in the community. A doctor should have evidence based and updated knowledge about the epidemiology of the practicing area. The curriculum of CMH LMC is planned with a collaboration of clinical and basic sciences faculty in addition to students and medicine department to ensure that the prevailing health conditions of the society are treated and dealt with effectively. The emergence of new techniques in all areas of medicine has led to changes in the curriculum with more emphasis on new and advanced techniques, procedures and evolution of new and advanced technology

## **Introduction to Curricular Framework**

This study guide is developed as resource assistance to the students and faculty. The study guide development process included representation from teaching faculty, management, leadership of college and students. The study guide is made to achieve and alignment between societies' needs, institutional needs, patient needs & student's needs.

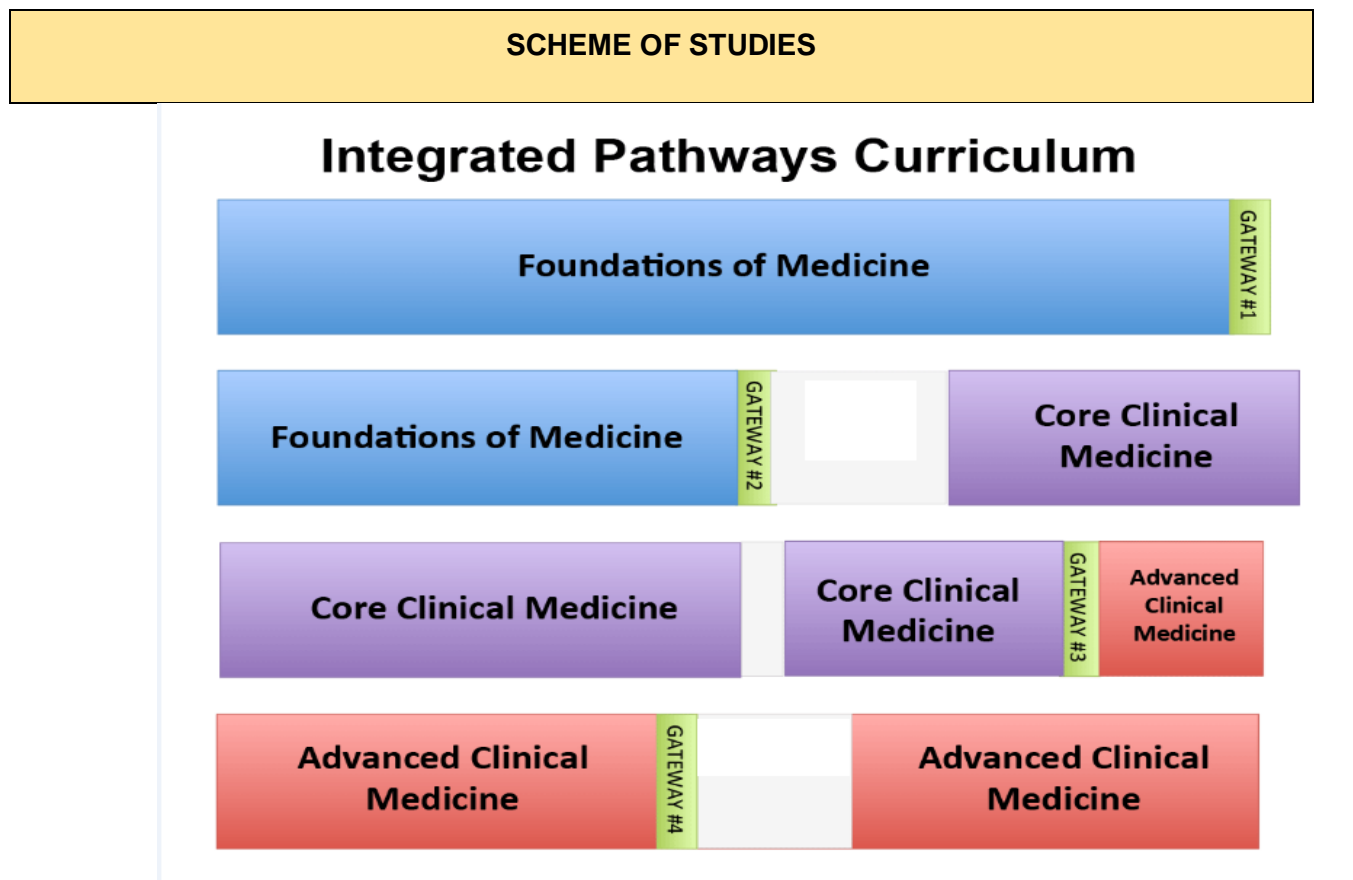
The curriculum implemented is a hybrid type of curriculum which has both horizontal and vertical integration. Spiral integration is introduced as an adjunct to horizontal and vertical integration. The curriculum spans over 3 phases

**PHASE 1 (Year 1 & 2):** Includes clinical lectures in medicine in integration with the basic sciences i.e anatomy, physiology, biochemistry and behavioural sciences.

**PHASE 2 (Year 3 & 4):** Includes preclinical sciences general pathology, community medicine, forensic medicine, behavioural sciences and clinical sciences of eye and ENT integrated with medicine, surgery, gynaecology and paediatrics .

**PHASE 3 (Year 5) :** Clerkship year includes medicine, surgery, gynaecology and Paediatrics

## 5 Years Medicine Curricular Framework



## Curricular Map of MBBS



## **MBBS Program Outcomes**

At the end of five years MBBS undergraduate program, the graduates should be able to:

1. Independently assess the patients, order relevant investigations and formulate a treatment plan.
2. Render treatments in the domain of general medicine to their patients in time efficient and quality-controlled manner.
3. Practice evidence-based medicine
4. Modify medical treatments according to patient's special needs, if any, in the form of medical conditions, physical or mental disabilities.
5. Assess and refer the patients with case difficulty indices requiring consultation or treatment by specialists.
6. Show empathy and respect in their attitude and behavior towards their patients.
7. Maintain high ethical and professional standards in their pursuit of clinical excellence.
8. Draw upon their existing knowledge and update it through continuing education programs.
9. Exercise infection control protocol guidelines laid out by their local health councils.
10. Exercise management qualities to maintain single or multiple unit private practices where applicable.
11. Work in a team of other health care professionals including doctors and paramedical staff .
12. Maintain patient records with emphasis on legal and patient confidentiality aspects.
13. Provide basic life support to patients requiring critical care in or outside medical set up.
14. Manage medical emergencies.
15. Demonstrate clear verbal and written communication skills.

## **Undergraduate Competencies**

CMH Lahore medical College envisions to produce graduates who are proficient in following competencies at the end of 5<sup>th</sup> year

- Medical Expertise
- Communication Skills
- Critical thinking
- Management
- Scholar
- Professionalism
- Evidence based practice providing holistic care
- Empathetic
- Health advocate
- Providing Community service

## **Patient and Doctors Safety**

While rotating through medical wards and outpatient departments' students will be educated for patient's safety and their own safety

- What patient safety is; no harm to patients as defined by WHO
- Understanding and learning from errors
- How to manage clinical risk; clinical risk management specifically is concerned with improving the quality and safety of health-care services by identifying the circumstances and opportunities that put patients at risk of harm and acting to prevent or control those risks
- Methods for quality improvement
- Engaging with patients and carers e.g. informed consent while examining patients or for performing any procedure, conveying truthful information ,showing empathy etc
- Minimising infection through improved Infection control
- Reducing risks associated with Invasive procedures
- Improving medication safety
- Apply universal precautions
- Be immunized against Hepatitis B
- Use personal protection methods
- Know what to do if exposed
- Encourage others to use universal precautions
- Promoting adherence to hand hygiene guidelines
- Students will be taught to use protective equipment like gloves, aprons and face masks



## Co-ordinator Final year MBBS Medicine Department 2020

| Coordinator Name       | Department | Extension |
|------------------------|------------|-----------|
| Prof. Rizwana Kitchlew | Medicine   | 470       |

### Student representatives

| Name                             | Designation        |
|----------------------------------|--------------------|
| Insram-ul-Hassan<br>Roll No: 157 | BR final Year MBBS |
| Fatima Syed<br>Roll No: 33       | GR final Year MBBS |

### Hours of Teaching

#### Contact Hours in the subject of Medicine & Allied

| Class                      | Lectures          | Clinical         | CPC      | Total Hrs  |
|----------------------------|-------------------|------------------|----------|------------|
| 1 <sup>st</sup> Year MBBS  | 25                | -                | -        | 21         |
| 2 <sup>nd</sup> Year MBBS  | 27                | -                | -        | 23         |
| 3 <sup>rd</sup> Year MBBS  | 33                | 63               | -        | 96         |
| 4 <sup>th</sup> Year MBBS  | 57+18+16          | 72+42+42         | 8        | 240        |
| <b>Final Year<br/>MBBS</b> | <b>127+ 16+17</b> | <b>234+42+42</b> | <b>8</b> | <b>459</b> |
| Total                      |                   |                  |          | 840 Hrs    |

## **Introduction to Medicine**

This study guide will help you to visit the most essential topics, system wise, in the subject of medicine. It will help to understand and appreciate each component of the course with its relation to other programs and your future life as a doctor. Thus chances of getting lost and missing important topics in the vast complex subject of medicine will be reduced .The guide is based on system based approach, which is the way curriculum is distributed for this course.

### **a) Resources**

- a. Teaching resources
- b. Infrastructure resources

#### **• Teaching resources**

Medical Students rotate in all three Medical units and Cardiology Unit, where they are exposed to wide range of patients in the wards, OPD's and Emergency department. Teaching schedule includes interactive lectures and bedside clinical teaching. Emphasis is given to integrated medical teaching. It is mandatory for the medical students to attend the Medical Units in the evening. Intensive bedside teaching is done by the faculty members. Students are exposed to subspecialties like Gastroenterology, Hepatology, Cardiology Oncology, Pulmonology, Neurology ,Nephrology ,Rheumatology, Endocrinology, Psychiatry and Dermatology during their rotations.

Clinical pathological conferences (**CPCs**) are held on regular basis where the students prepare and present under the supervision of faculty members.

Students are assessed on UHS and NUMS format at the end of each rotation. Assessment includes OSPE's, short and long cases presentations and discussions . Midterm assessments and send up examinations are also conducted.

#### **• Infrastructure resources**

| <b>Sr. #.</b> | <b>Infrastructure Resources</b> | <b>Quantity</b> |
|---------------|---------------------------------|-----------------|
| 1             | Lecture hall                    | 1               |
| 2             | OPD                             |                 |

|   |   |  |
|---|---|--|
|   | <ul style="list-style-type: none"> <li>• General Medicine</li> <li>• Pulmonology</li> <li>• Neurology</li> <li>• GI</li> <li>• Rheumatology</li> <li>• Oncology</li> <li>• Cardiology</li> <li>• Psychiatry</li> <li>• Dermatology</li> </ul> | 07<br>02<br>03<br>04<br>01<br>03<br>04<br>03<br>06 |
| 3 | General Medical Wards   | 4  |
| 5 | Class Rooms (In the Hospital)   | 2  |
| 6 | Mini Library  | 1  |

## **b) TEACHING AND LEARNING STRATEGIES**

The teaching strategies are modified keeping in view the prevailing COVID 19 scenario. A hybrid system consisting of virtual teaching and on campus teaching for clinical sessions is planned as a backup if need arises.

Learning Management System (LMS) has been developed. Zoom service will be utilized for teaching sessions and webinars. Socrative App will be used for assessments.

Multiple educational methods will be used comprising of self-study, interactive lectures, group discussions, practical, and manual dexterity skill sessions.

(i) Methods for achieving cognitive objectives

- Interactive lectures using audio visual aids on power point presentation
- Group discussions in form of large group and small group
- Collaborative learning
- Self-study and reading from learning resources

(ii) Methods for achieving psychomotor objectives

- Tutorials and videos
- Clinical demonstrations provided by teaching faculty on models and patients
- Supervised practice on patients

(iii) Methods for achieving affective objectives

- Interaction with peers, group members, teachers, support staff etc. Leading into 360° evaluation
- Group discussions (small and large)
- Role Modelling

**c) LEARNING METHODOLOGIES**

The following teaching /learning methods are used to promote better understanding:

- Interactive lectures
- Small group discussions case based or problem based
- Practical
- Skill sessions
- Self-directed learning
- Assignments
- Oral presentations by students

**d) Course Outline**

**1. Course Title: CARDIOLOGY**

**a. Teaching Hours:** Duration of Lecture

Practical

**b. Number of lectures:**

**c. Course Duration: 5<sup>th</sup> year**

**d. Aims and Objectives of the program**

(i).Rationale

Important clinical implications as common life threatening emergencies related to the system.

(ii).Learning Outcome.

To identify the CVS diseases on basis of history, clinical examination & investigations & plan & initiate relevant management.

## e. Topics

- Rheumatic fever and infective endocarditis.

### • Valvular heart diseases.

- Mitral valve

- Aortic valve

### • Ischaemic heart disease.

- Angina

- Myocardial infarction

### • Cardiac arrhythmias

- Atrial fibrillation

- Ventricular tachycardia

- Premature atrial and ventricular beats.

### • Heart failure.

- Left ventricular failure.

- Congestive cardiac failure.

- Cor pulmonale.

### • Congenital heart diseases .

- Cyanotic/ acyanotic heart diseases.

- Fallot's tetralogy

- Atrial septal defect

- Ventricular septal defect

- Patent ductus arteriosus

- Cardiomyopathies

### • Pericardial diseases.

- Constrictive pericarditis

- Pericardial effusion

- Atherosclerosis/arteriosclerosis.

- Hypertension.

- Peripheral vascular disease.

- Acute & chronic ischaemia of the leg

- Aneurysms

- Buerger's disease

- Raynaud's disease

- varicose veins

- Venous thrombosis

## e. Knowledge about subject

**f. Skills** - The clinical examination methods.

Procedures: CVP & ETT placement, ECG ,ETT ,Echocardiography, Defibrillator use, Pacemaker placement ,Thallium Scan, Cardiac catheterization & Angiography.

**g. Attitude:** towards clinical state of patient e.g judged by Consent for examination & tests . Empathy and Respect for Privacy, Autonomy & confidentiality of patient. Element of Humanity, Ethics & Justice

**h. Counseling:** Regarding diagnosis, Management, prognosis, prevention & follow up

**i. TOS formation.**

▪ **LEVEL OF LEARNING**

- **Level 3-** (Expected to be attained in final year MBBS).
- Able to take a focused symptoms based & systemic history performs relevant general & systemic clinical examination, pick & interpret clinical findings, aware of relevant investigations and management principles.

- Observer status (O)
- Assistant status (A)
- Perform under supervision (PS)
- Perform independently (PI)

▪ **LEARNING OUTCOMES**

- History taking
- Physical examination
- Practical procedures
- Awareness regarding relevant investigations & management principles
- Develop good communication skills as a health care professional

**LEARNING OUTCOMES**

|   |                  |  |
|---|------------------|--|
| Should be able to take relevant history                 |                  |  |
| <b><u>Regarding diseases of CVS as listed above</u></b> | <b><u>PI</u></b> |  |

**SHOULD BE ABLE TO PERFORM EXAMINATION & PROCEDURES**

|  |                  |  |
|--|------------------|--|
| Should be able to perform                              |                  |  |
| <b><u>CVS examination</u></b>                          | <b><u>PI</u></b> |  |
| <b><u>Systemic &amp; relevant general physical</u></b> |                  |  |
| <b><u>CVP placement</u></b>                            | <b><u>A</u></b>  |  |
| <b><u>ETT placement</u></b>                            | <b><u>A</u></b>  |  |
| <b><u>ECG</u></b>                                      | <b><u>A</u></b>  |  |
| <b><u>Exercise Treadmill Test</u></b>                  | <b><u>O</u></b>  |  |
| <b><u>Pacemaker placement</u></b>                      | <b><u>O</u></b>  |  |
| <b><u>Defibrillator use</u></b>                        | <b><u>PS</u></b> |  |
| <b><u>Thallium Scan</u></b>                            | <b><u>O</u></b>  |  |
| <b><u>Cardiac catheterization</u></b>                  |                  |  |

|                    |  |  |
|--------------------|--|--|
| <u>Angiography</u> |  |  |
|--------------------|--|--|

|   |           |  |
|---|-----------|--|
| Should be able to diagnose and initiate management plan |           |  |
| <u>Regarding diseases of CVS as listed above</u>        | <u>PI</u> |  |

**Mode of Information transfer & assessment tools for competencies:**

| Learning outcome  | Mode of information transfer                                  | Assessment tool   |
|---|---|---|
| History taking  | Bedside clinical teaching ,Long cases & Short cases           | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)                                  |
| Physical examination  | Bedside clinical teaching/ Videos                             | Demonstration of physical examination skills under supervision/ ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum) |
| Awareness Regarding relevant investigations & management principles | Bedside clinical teaching/Lectures/Group discussion/Tutorials | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test, Class tests<br>MCQ,SAQ,LEQ   |
| Practical procedures  | Videos/practical demonstration/practice on manikins           | Ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)   |
| Communication Skills  | Bedside clinical teaching/Group discussions/Tutorials         | Ongoing assessment by teachers/Bedside/TOACS  |

**2.Course Title: Endocrinology & Metabolic Disorders**

**a. Teaching Hours:** Duration of Lecture Practical

**b.Number of lectures:**

**c.Course Duration: 5<sup>th</sup> year**

**d.Aims and Objectives of the program**

(i).Rationale

Important clinical implications as high prevalence & incidence of diseases related to this system

(ii).Learning Outcome.

To identify the diseases on basis of history, clinical examination & investigations & plan& initiate relevant management.

**e.Topics:**

Anterior pituitary.

- Growth hormone disorders
- Acromegaly
- Gigantism.
- Short stature
- Infertility
- Diseases of hypothalamus and posterior pituitary.
  - Empty sella syndrome
  - Diabetes insipidus
  - Syndrome of inappropriate ADH secretion (SIADH).
- Thyroid gland.
  - Hyperthyroidism (thyrotoxicosis)
  - Hypothyroidism (myxedema, cretinism)
  - Inflammatory lesions
  - Benign and malignant tumors
- Adrenal Gland.
  - Cushing Syndrome
  - Aldosteronism Primary/Secondary.
  - Hirsutism.
  - Addison's disease
  - Acute Addisonian crisis
  - Inflammatory lesions
  - Adrenocortical tumors including Pheochromocytoma
- Endocrine Pancreas
  - Diabetes mellitus and hypoglycaemic states
- Other associated endocrine disorders
  - Sexual precocity
  - Heterosexual precocity
  - Gynaecomastia
- Multiple endocrine neoplasia
  - Type I
  - Type II
- Hyperlipidemia
- Hemochromatosis
- Porphyrias
- Wilson's disease
- Gout and hypercalcemia



- Storage diseases.
- Lipid.
  - Leukodystrophies
  - Niemann pick disease.
  - Gaucher's disease.
- Glycogen.
  - Fabry's disease.
- Hereditary connective tissue disorders
  - Osteogenesis imperfecta.
  - Ehler's danlos syndrome.
  - Chondrodysplasias.
  - Marfan syndrome.
  - Alport syndrome.
- Disorders of amino acid metabolism and storage
  - Homocystinuria.
  - Alkaptonuria.
  - Hartnup disease.
- Renal glycosuria

**f. Knowledge about subject**

**g. Skills** - the clinical examination methods.

- BP recording
- Glucometer use
- Insulin injection technique

**h. Attitude:** towards clinical state of patient judged by Consent for examination & tests , Empathy and Respect for Privacy, Autonomy & confidentiality of patient , Element of Humanity , Ethics & Justice

**i. Counseling** regarding Diagnosis , Management , prognosis, prevention & follow up.

**j. TOS formation.**

**LEARNING OUTCOMES**

|  |                  |  |
|--|------------------|--|
| Should be able to take relevant history          |                  |  |
| <b><u>Regarding diseases as listed above</u></b> | <b><u>PI</u></b> |  |
|  |                  |  |

## **SHOULD BE ABLE TO PERFORM EXAMINATION & PROCEDURES**

|  |                  |  |
|--|------------------|--|
| Should be able to perform  |                  |  |
| <b><u>Systemic &amp; relevant general physical Examination</u></b> | <b><u>PI</u></b> |  |
| <b><u>BP recording</u></b>   | <b><u>PI</u></b> |  |
| <b><u>Glucometer Use</u></b>                                       | <b><u>PI</u></b> |  |
| <b><u>Insulin Injection Technique</u></b>                          | <b><u>PI</u></b> |  |

|   |                  |  |
|---|------------------|--|
| should be able to diagnose and initiate management plan |                  |  |
| <b><u>Regarding diseases as listed above</u></b>        | <b><u>PI</u></b> |  |

## **Mode of Information transfer & assessment tools for competencies:**

| <b>Learning outcome</b>   | <b>Mode of information transfer</b>                           | <b>Assessment tool</b>  |
|---|---|---|
| History taking  | Bedside clinical teaching, Long cases, Short cases            | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)                                  |
| Physical examination  | Bedside clinical teaching/ Videos                             | Demonstration of physical examination skills under supervision/ ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum) |
| Awareness Regarding relevant investigations & management principles | Bedside clinical teaching/Lectures/Group discussion/Tutorials | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test, Class tests<br>MCQ, SAQ, LEQ   |
| Practical procedures  | Videos/practical demonstration/practice on manikins           | Ongoing assessment by teachers (to be documented in ward card) ward test (format as   |

|                      |   |  |
|----------------------|---|--|
|                      |   | per competency based learning curriculum)    |
| Communication Skills | Bedside clinical teaching/Group discussions/Tutorials | Ongoing assessment by teachers/Bedside/TOACS |

### 3. Course Title: **Pulmonology**

**a. Teaching Hours:** Duration of Lecture Practical

**b. Number of lectures:**

**c. Course Duration:** 5<sup>th</sup> year

**d. Aims and Objectives of the program**

(i). Rationale

Important clinical implications as common life threatening emergencies related to the system

(ii). Learning Outcome.

To identify the Respiratory diseases on basis of history, clinical examination & investigations & plan & initiate relevant management.

**e. Topics**

1. Acute Pneumonias
2. Chronic Pneumonias/Bronchiectasis
3. Tuberculosis
4. Asthma
5. COPD
6. ILD/Pneumoconiosis
7. Respiratory Failure/Oxygen therapy
8. Pleural Diseases
9. Sarcoidosis
10. Pneumothorax
11. Lung Cancer
12. Sepsis, D.I.C/Multiorgan Failure/Ventilation

**f. Knowledge about subject**

**g. Skills** - the clinical examination methods.

- Peak Flow meter use
- Nebulization
- Pleural tap
- Pleural biopsy
- Pulmonary Function Tests/Spirometry
- Bronchoscopy
- How to initiate O<sub>2</sub> therapy
- Endotracheal suction

Under water seal aspiration

**h. Attitude:** towards clinical state of patient judged by Consent for examination & tests , Empathy and Respect for Privacy, Autonomy & confidentiality of patient , Element of Humanity ,Ethics & Justice

**i. Counseling:** regarding Diagnosis , Management ,prognosis,prevention & follow up.

**j.TOS formation.**

**LEVEL OF LEARNING**

- Observer status (O)
- Assistant status (A)
- Perform under supervision (PS)
- Perform independently (PI)

**LEARNING OUTCOMES**

|  |                  |  |
|--|------------------|--|
| Should be able to take relevant history                |                  |  |
| <b><u>Regarding Diseases of Respiratory system</u></b> | <b><u>PI</u></b> |  |
| <b><u>As listed above</u></b>                          |                  |  |

**SHOULD BE ABLE TO PERFORM EXAMINATION & PROCEDURES**

|   |                  |  |
|---|------------------|--|
| Should be able to perform                             |                  |  |
| <b><u>Respiratory system examination</u></b>          | <b><u>PI</u></b> |  |
| <b><u>Systemic &amp;relevant General physical</u></b> |                  |  |
| <b><u>Peak Flow Meter</u></b>                         | <b><u>PI</u></b> |  |
| <b><u>Nebulization</u></b>                            | <b><u>PS</u></b> |  |
| <b><u>Pleural Tap</u></b>                             | <b><u>A</u></b>  |  |
| <b><u>Pleural Biopsy</u></b>                          | <b><u>O</u></b>  |  |
| <b><u>How to initiate O2 therapy</u></b>              | <b><u>PS</u></b> |  |
| <b><u>Endotracheal suction</u></b>                    | <b><u>PS</u></b> |  |
| <b><u>Under water seal aspiration</u></b>             | <b><u>O</u></b>  |  |

|  |                  |  |
|--|------------------|--|
| <b>Pulmonary Function Tests/Spirometry</b> | <b><u>PS</u></b> |  |
| <b><u>Bronchoscopy</u></b>                 | <b><u>O</u></b>  |  |

|   |  |                  |
|---|--|------------------|
| Should be able to diagnose and initiate management plan |  |                  |
| <b><u>Regarding Diseases of Respiratory system</u></b>  |  |                  |
| <b><u>As listed above</u></b>                           |  | <b><u>PI</u></b> |

### Mode of Information transfer & assessment tools for competencies:

| <b>Learning outcome</b>   | <b>Mode of information transfer</b>                           | <b>Assessment tool</b>  |
|---|---|---|
| History taking  | Bedside clinical teaching, Long cases, Short cases            | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)                                  |
| Physical examination  | Bedside clinical teaching/ Videos                             | Demonstration of physical examination skills under supervision/ ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum) |
| Awareness Regarding relevant investigations & management principles | Bedside clinical teaching/Lectures/Group discussion/Tutorials | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test, Class tests<br>MCQ, SAQ, LEQ   |
| Practical procedures  | Videos/practical demonstration/practice on manikins           | Ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)   |
| Communication Skills  | Bedside clinical teaching/Group discussions/Tutorials         | Ongoing assessment by teachers/Bedside/TOACS  |

## 4. Course Title: **Nephrology**

**a. Teaching Hours:** Duration of Lecture

Practical

**b. Number of lectures:**

**c. Course Duration:** 5<sup>th</sup> year

**d. Aims and Objectives of the program**

(i). Rationale

Important clinical implications as high prevalence & incidence of diseases related to this system

(ii). Learning Outcome.

To identify the Renal diseases on basis of history, clinical examination & investigations & plan & initiate relevant management.

### **e. Topics**

1. Acute renal failure.

2. Chronic renal failure

3. Nephrotic syndrome.

4. Nephritic syndrome.

5. Urinary tract infections

- Infections of the kidneys
- Infections of the lower urinary tract

6. Inflammatory lesions of the kidneys

7. Introduction to dialysis & renal transplant

8. Drugs causing renal disease (brief).

- Analgesic nephropathy.
- Lead, uric acid, hypercalcemia, radiation & hypersensitivity Nephropathy.
- Drugs contra indicated in renal insufficiency
- Drugs to be used with caution in renal disease.

9. Polycystic kidneys.

10. Renal vascular disorders

- Renal artery stenosis
- Renal vein thrombosis

11. Tumours

12. Hemolytic uremic syndrome.

13. Prostatic diseases

14. Disorders of Acid Base Balance

15. Sodium & Potassium Imbalance

### **f. Knowledge about subject**

**g. Skills** - the clinical examination methods.

Urinary Catheter Placement

Introduction to Haemodialysis & Peritoneal dialysis , Renal Biopsy

**h. Attitude** towards clinical state of patient judged by Consent for examination & tests , Empathy and Respect for Privacy, Autonomy & confidentiality of patient , Element of Humanity, Ethics & Justice

**i. Counseling** regarding diagnosis , Management , prognosis, prevention & follow up.

**j. TOS formation**

**LEVEL OF LEARNING**

- Observer status (O)
- Assistant status (A)
- Perform under supervision (PS)
- Perform independently (PI)

**LEARNING OUTCOMES**

|  |                  |  |
|--|------------------|--|
| Should be able to take relevant history          |                  |  |
| <b><u>Regarding Renal diseases as listed</u></b> |                  |  |
| <b><u>above</u></b>                              | <b><u>PI</u></b> |  |
|  |                  |  |

**SHOULD BE ABLE TO PERFORM EXAMINATION & PROCEDURES**

|   |                  |  |
|---|------------------|--|
| Should be able to perform                     |                  |  |
| <b><u>Relevant Systemic &amp; General</u></b> | <b><u>PI</u></b> |  |
| <b><u>Physical examination</u></b>            |                  |  |
| <b><u>Peritoneal Dialysis</u></b>             | <b><u>A</u></b>  |  |
| <b><u>Haemodialysis</u></b>                   | <b><u>O</u></b>  |  |
| <b><u>Renal Biopsy</u></b>                    | <b><u>O</u></b>  |  |

|   |                  |  |
|---|------------------|--|
| Should be able to diagnose and initiate management plan |                  |  |
| <b><u>Regarding Renal diseases</u></b>                  | <b><u>PI</u></b> |  |

## Mode of Information transfer & assessment tools for competencies:

| Learning outcome  | Mode of information transfer                                  | Assessment tool   |
|---|---|---|
| History taking  | Bedside clinical teaching, Long cases, Short cases            | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)                                  |
| Physical examination  | Bedside clinical teaching/ Videos                             | Demonstration of physical examination skills under supervision/ ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum) |
| Awareness Regarding relevant investigations & management principles | Bedside clinical teaching/Lectures/Group discussion/Tutorials | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test, Class tests MCQ, SAQ, LEQ  |
| Practical procedures  | Videos/practical demonstration/practice on manikins           | Ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)   |
| Communication Skills  | Bedside clinical teaching/Group discussions/Tutorials         | Ongoing assessment by teachers/Bedside/TOACS  |

### 5.Course Title: GASTROENTROLOGY

**a.Teaching Hours:** Duration of Lecture

Practical

**b.Number of lectures:**

**c.Course Duration:** 5<sup>th</sup> year

**d.Aims and Objectives of the program**

(i).Rationale

Important clinical implications as high prevalence & incidence of diseases related to this system

(ii).Learning Outcome.

To identify the Gastrointestinal diseases & complications on basis of history, clinical examination & investigations then plan& initiate relevant management.



## **e. Topics:**

### 1. Oral cavity

- Infections and inflammatory disorders
- Benign and malignant diseases

### 2. Esophagus.

- Dysphagia with special reference to
- Oesophagus
- GERD
- Achalasia
- Candidiasis of oral cavity and oesophagus

### 3. Stomach

- Gastritis.
- Peptic ulcer

### 4. Intestines

- Malabsorption syndromes.
- Tropical sprue
- Coeliac disease
- Inflammatory bowel diseases.
  - Ulcerative colitis
  - Crohn's disease
- Irritable bowel syndrome (IBS).

### 5. Liver

### 6. Ascites.

### 7. Jaundice.

- Congenital hyperbilirubinaemia
- Gilbert syndrome
- Dubin Johnson syndrome
- Rotor syndromes
- Haemolytic
- Obstructive

### 8. Hepatitis

- Viral, acute and chronic
- Toxic
- Drugs
- Auto immune hepatitis.

### 9. Cirrhosis of liver.

### 10. Hepatic encephalopathy.

### 11. Carcinoma liver and transplant.

### 12. Acute and chronic pancreatitis.

### 13. Upper GI bleeding, lower GI bleeding

### 14. Drugs contraindicated in liver diseases

## **f. Knowledge about subject**

## **g. Skills** - The clinical examination methods.

Nasogastric tube placement  
 Sangstaken Tube placement,  
 Ascetic tap  
 Introduction to Endoscopy ,Colonoscopy ,ERCP ,Liver Biopsy

**h. Attitude** towards clinical state of patient judged by Consent for examination & tests , Empathy and Respect for Privacy, Autonomy&confidentiality of patient , Element of Humanity,Ethics & Justice

**i.Counseling** regarding diagnosis , Management ,prognosis , prevention & follow up.

**j.TOS formation.**

**LEVEL OF LEARNING**

- Observer status (O)
- Assistant status (A)
- Perform under supervision (PS)
- Perform independently (PI)

**LEARNING OUTCOMES**

|   |                  |  |
|---|------------------|--|
| Should be able to take relevant history           |                  |  |
| <b><u>Regarding Gastrointestinal Diseases</u></b> | <b><u>PI</u></b> |  |
| <b><u>As listed above</u></b>                     |                  |  |

**SHOULD BE ABLE TO PERFORM EXAMINATION & PROCEDURES**

|  |                  |  |
|--|------------------|--|
| Should be able to perform  |                  |  |
| <b><u>GIT Systemic &amp; Relevant General Physical Examination</u></b> | <b><u>PI</u></b> |  |
| <b>Nasogastric tube placement</b>                                      | <b><u>A</u></b>  |  |
| <b>Sangstaken Tube placement</b>                                       | <b><u>O</u></b>  |  |
| <b>Ascetic tap</b>   | <b><u>A</u></b>  |  |
| <b>Endoscopy ,Colonoscopy, ERCP</b>                                    | <b><u>O</u></b>  |  |
| <b><u>Liver Biopsy</u></b>   | <b><u>O</u></b>  |  |

|   |                  |  |
|---|------------------|--|
| Should be able to diagnose and initiate management plan |                  |  |
| <b><u>Regarding Gastrointestinal Diseases</u></b>       |                  |  |
| <b><u>As listed above</u></b>                           | <b><u>PI</u></b> |  |

### Mode of Information transfer & assessment tools for competencies:

| Learning outcome  | Mode of information transfer                                  | Assessment tool   |
|---|---|---|
| History taking  | Bedside clinical teaching, Long cases, Short cases            | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)                                  |
| Physical examination  | Bedside clinical teaching/ Videos                             | Demonstration of physical examination skills under supervision/ ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum) |
| Awareness Regarding relevant investigations & management principles | Bedside clinical teaching/Lectures/Group discussion/Tutorials | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test, Class tests MCQ, SAQ, LEQ  |
| Practical procedures  | Videos/practical demonstration/practice on manikins           | Ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)   |
| Communication Skills  | Bedside clinical teaching/Group discussions/Tutorials         | Ongoing assessment by teachers/Bedside/TOACS  |

### 6.Course Title: NEUROLOGY

**a.Teaching Hours:** Duration of Lecture

Practical

**b.Number of lectures:**

**c.Course Duration:** 5<sup>th</sup> year

#### **d.Aims and Objectives of the program**

##### (i).Rationale

Important clinical implications as high prevalence & incidence of diseases related to this system

##### (ii).Learning Outcome.

To identify the Neurological disorders on basis of history, clinical examination & investigations & plan& initiate relevant management.

##### e.Topics

###### 1.Meningitis

- Bacterial.
- Tuberculous.
- Viral etc.

###### 2.Brain abscess

###### 3.Encephalitis

###### 4.Hydrocephalus

###### 5.Epilepsy and other convulsive disorders

###### 6.Cerebrovascular diseases (stroke).

###### Infarction

- Ischemic
- Embolism

###### Haemorrhage

- Intra-cerebral
- Subarachnoid

###### 7.Dementia and Alzheimer's disease.

###### 8.Parkinson's disease and other movement disorders.

###### 9.Motor neuron disease.

###### 10.Multiple sclerosis.

###### 11.Cranial nerve disorders.

###### 12.Transient mono-ocular blindness

- (amaurosis fugax).

###### 13.Trigeminal neuralgia.

###### 14.Facial palsy (Bell's).

###### 15.Vertigo, nystagmus

###### 16.Spinal cord disorders.

- Spinal cord compression
- Hemiplegia, paraplegia, quadriplegia
- Myelitis.
- Spondylosis.
- Syringomyelia and syringobulbia.

###### 17.Peripheral nerve disorders.

- Peripheral polyneuropathy
- Gullian Barrie syndrome
- Mononeuritis multiplex.

###### 18.Space occupying lesions of brain and spinal cord.

###### 19.Muscular dystrophies

20. Myopathies, myasthenia gravis

**f. Knowledge** about subject

**g. Skills** - the clinical examination methods.

Lumbar puncture

Introduction to EEG, NCS, EMG, Sleep Study

**h. Attitude** towards clinical state of patient judged by Consent for examination & tests, Empathy and Respect for Privacy, Autonomy & confidentiality of patient, Element of Humanity, Ethics & Justice

**i. Counseling** regarding diagnosis, Management, prognosis, prevention & follow up.

**j. TOS formation.**

**LEVEL OF LEARNING**

- Observer status (O)
- Assistant status (A)
- Perform under supervision (PS)
- Perform independently (PI)

**LEARNING OUTCOMES**

|   |                  |  |
|---|------------------|--|
| Should be able to take relevant history |                  |  |
| <b><u>Regarding Diseases of CNS</u></b> | <b><u>PI</u></b> |  |
| <b><u>As listed above</u></b>           |                  |  |

**SHOULD BE ABLE TO PERFORM EXAMINATION & PROCEDURES**

|  |                  |  |
|--|------------------|--|
| Should be able to perform  |                  |  |
| <b><u>CNS Examination Systemic<br/>&amp; Relevant General Physical</u></b> | <b><u>PI</u></b> |  |
| <b>Lumbar puncture</b>   | <b><u>A</u></b>  |  |
| <b>EEG</b>   | <b><u>O</u></b>  |  |
| <b>NCS, EMG</b>  | <b><u>O</u></b>  |  |
| <b>Sleep Study</b>   | <b><u>O</u></b>  |  |

|   |           |  |
|---|-----------|--|
| Interpretation of related radiological investigations | <u>PS</u> |  |
|---|-----------|--|

|   |           |  |
|---|-----------|--|
| Should be able to diagnose and initiate management plan |           |  |
| <u>Regarding Diseases of CNS as listed above</u>        | <u>PI</u> |  |

### Mode of Information transfer & assessment tools for competencies:

| Learning outcome  | Mode of information transfer                                  | Assessment tool   |
|---|---|---|
| History taking  | Bedside clinical teaching, Long cases, Short cases            | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)                                  |
| Physical examination  | Bedside clinical teaching/ Videos                             | Demonstration of physical examination skills under supervision/ ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum) |
| Awareness Regarding relevant investigations & management principles | Bedside clinical teaching/Lectures/Group discussion/Tutorials | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test, Class tests<br>MCQ, SAQ, LEQ   |
| Practical procedures  | Videos/practical demonstration/practice on manikins           | Ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)   |
| Communication Skills  | Bedside clinical teaching/Group discussions/Tutorials         | Ongoing assessment by teachers/Bedside/TOACS  |

## 7. Course Title: RHEUMATOLOGY

**a. Teaching Hours:** Duration of Lecture

Practical

**b. Number of lectures:**

**c. Course Duration: 5<sup>th</sup> year**

## **d.Aims and Objectives of the program**

### **(i).Rationale**

Important clinical implications as significant prevalence & incidence of joints related disorders.

### **(ii).Learning Outcome**

To identify the Rheumatological diseases & complications on basis of history, clinical examination & investigations & plan& initiate relevant management.

## **e.Topics**

- Osteoarthritis
- Osteoporosis
- Rheumatoid arthritis and related arthropathies
- Paget's disease of the bone.
- Osteopetrosis (marble bone disease).
- **Multi-System Immunological Diseases**
- Systemic lupus erythematosus (SLE)
- Serum sickness
- Systemic sclerosis (scleroderma).
- Mixed connective tissue diseases
- Sjogren's syndrome
- Ankylosing spondylitis.
- Bechet's syndrome
- Vasculitis syndromes .
- Anaphylactoid purpura
- Polyarteritis nodosa
- Hpersensitivity vasculitis
- Wegner's granulomatosis
- Temporal arteritis
- Takayasu's arteritis
- Thromboangitis obliterans (Burger's disease)
- Sarcoidosis

## **f. Knowledge about subject**

### **g. Skills** - the clinical examination methods.

Joint Aspiration , Intra articular injection technique

**h. Attitude** towards clinical state of patient judged by Consent for examination &tests , Empathy and Respect for Privacy, Autonomy &confidentiality of patient , Element of Humanity ,Ethics & Justice

**i. Counseling** regarding diagnosis , Management ,prognosis, prevention & follow up.

## **j.TOS formation.**

### **LEVEL OF LEARNING**

- Observer status (O)
- Assistant status (A)
- Perform under supervision (PS)

- Perform independently (PI)

## **LEARNING OUTCOMES**

|   |                  |  |
|---|------------------|--|
| Should be able to take relevant history       |                  |  |
| <b><u>Regarding diseases of Locomotor</u></b> | <b><u>PI</u></b> |  |
| <b><u>System as listed above</u></b>          |                  |  |

## **SHOULD BE ABLE TO PERFORM EXAMINATION & PROCEDURES**

|   |                  |  |
|---|------------------|--|
| Should be able to perform                           |                  |  |
| <b><u>Locomotor system examination &amp;</u></b>    |                  |  |
| <b><u>Relevant General Physical Examination</u></b> | <b><u>PI</u></b> |  |
| <b><u>Joint Aspiration</u></b>                      | <b><u>O</u></b>  |  |
| <b><u>Intra articular injection technique</u></b>   | <b><u>O</u></b>  |  |

|   |                  |  |
|---|------------------|--|
| Should be able to diagnose and initiate management plan |                  |  |
| <b><u>Regarding diseases of Locomotor system</u></b>    |                  |  |
| <b><u>As listed above</u></b>                           | <b><u>PI</u></b> |  |

## **Mode of Information transfer & assessment tools for competencies:**

| <b>Learning outcome</b> | <b>Mode of information transfer</b>                | <b>Assessment tool</b>  |
|-------------------------|--|---|
| History taking          | Bedside clinical teaching, Long cases, Short cases | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)                                  |
| Physical examination    | Bedside clinical teaching/ Videos                  | Demonstration of physical examination skills under supervision/ ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum) |



|   |   |   |
|---|---|---|
| Awareness Regarding relevant investigations & management principles | Bedside clinical teaching/Lectures/Group discussion/Tutorials | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test,Class tests MCQ,SAQ,LEQ |
| Practical procedures  | Videos/practical demonstration/practice on manikins           | Ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)   |
| Communication Skills  | Bedside clinical teaching/Group discussions/Tutorials         | Ongoing assessment by teachers/Bedside/TOACS  |

## 8.Course Title: INFECTIOUS DISEASES

a. **Teaching Hours:** Duration of Lecture Practical

b. **Number of lectures:**

c. **Course Duration:** 5<sup>th</sup> year

d. **Aims and Objectives of the program**

(i).Rationale

Important clinical implications as significant prevalence & incidence of these diseases.Special emphasis on the infections common in Pakistan.

(ii).Learning Outcome.

To identify the various Infectious diseases & complications on basis of history, clinical examination & investigations & plan & initiate relevant management & Prevention Scheme.

### e.Topics:

Clinical syndromes.

- Sepsis and septic shock, meningococcaemia
- Acute infectious diarrhoeal diseases and bacterial foodpoisoning.
- Hospital acquired infections.
- Common disease syndromes caused by the following bacteria and their drug therapy.
- Pneumococci
- Staphylococci.
- Streptococci.
- Hemophilisinfluenzae.
- Shigella.
- Gonococci.
- Pseudomonas.

- Following diseases in detail.
- Tetanus.
- Enteric fever/salmonellosis.
- Cholera.
- Tuberculosis.
- Leprosy.
- Amoebiasis/giardiasis/trichomoniasis.
- Malaria.
- AIDS.
- Rabies.
- Infectious mononucleosis.
- Helminthic infestations
  - Ascariasis
  - Hookworm
  - Whipworm (trichuriasis)
  - Threadworm (entrobiasis)
  - Taenia (tapeworm)
  - Hydatid diseases

**f. Knowledge about subject**

**g. Skills** – the relevant clinical examination methods.

Procedures: Injection I/V, I/M, S/C, intradermal

Urinary catheterisation – collection of samples

Collection of blood samples/ blood film preparation

**h. Attitude:** towards clinical state of patient judged by Consent for examination & tests , Empathy and Respect for Privacy, Autonomy & confidentiality of patient , Element of Humanity ,Ethics & Justice

**i. Counseling** regarding diagnosis , Management ,prognosis, Prevention & follow up.

**j.TOS formation.**

**LEVEL OF LEARNING**

- Observer status (O)
- Assistant status (A)
- Perform under supervision (PS)
- Perform independently (PI)

## LEARNING OUTCOMES

|   |                  |  |
|---|------------------|--|
| Should be able to take relevant history     |                  |  |
| <b><u>Regarding Infectious diseases</u></b> | <b><u>PI</u></b> |  |
| <b><u>as listed above</u></b>               |                  |  |

## SHOULD BE ABLE TO PERFORM EXAMINATION & PROCEDURES

|  |                  |  |
|--|------------------|--|
| Should be able to perform  |                  |  |
| <b><u>Relevant General &amp; Systemic Physical Examination</u></b>                   | <b><u>PI</u></b> |  |
| Injection I/V, I/M, S/C, intradermal   | <b><u>PI</u></b> |  |
| Urinary catheterisation – collection of samples                                      | <b><u>PS</u></b> |  |
| Collection of blood samples/ blood film preparation                                  | <b><u>PS</u></b> |  |
| Branula  | <b><u>PI</u></b> |  |
| CVP  | <b><u>A</u></b>  |  |
| • Aspiration of fluids (Pleural, Pericardial, Peritoneal, Knee)<br>• Lumbar Puncture | <b><u>Q</u></b>  |  |

|   |                  |  |
|---|------------------|--|
| Should be able to diagnose and initiate management plan |                  |  |
| <b><u>Regarding Infectious diseases</u></b>             | <b><u>PI</u></b> |  |
| <b><u>As listed above</u></b>                           |                  |  |

## **Mode of Information transfer & assessment tools for competencies:**

| Learning outcome                              | Mode of information transfer                          | Assessment tool   |
|---|---|---|
| History taking                                | Bedside clinical teaching,<br>Long cases, Short cases | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)                                  |
| Physical examination                          | Bedside clinical teaching/<br>Videos                  | Demonstration of physical examination skills under supervision/ ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum) |
| Awareness Regarding relevant investigations & | Bedside clinical teaching/Lectures/Group              | Case presentation & discussion/ongoing  |

|                             |  |   |
|-----------------------------|--|---|
| management principles       | discussion/Tutorials   | assessment by teachers (to be documented in ward card) ward test, Class tests MCQ, SAQ, LEQ                                   |
| Practical procedures        | Videos/practical demonstration/practice on manikins          | Ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum) |
| <b>Communication Skills</b> | <b>Bedside clinical teaching/Group discussions/Tutorials</b> | <b>Ongoing assessment by teachers/Bedside/TOACS</b>   |

## 9.Course Title: HAEMATOLOGY

**a.Teaching Hours:** Duration of Lecture Practical

**b.Number of lectures:**

**c.Course Duration: 5<sup>th</sup> year**

**d.Aims and Objectives of the program**

(i).Rationale

Important clinical implications of diseases related to this system

(ii).Learning Outcome.

To identify the Haematological disorders on basis of history, clinical examination & investigations & plan& initiate relevant management.

**e.Topics**

- Anaemias.
- Classification
- Iron deficiency
- Megaloblastic
  - B-12 deficiency
  - Folic acid deficiency
- Anaemia of chronic disorder
- Haemolyticaemia
  - Hereditary
  - Acquired
    - Intra-corporcular
    - Extra-corporcular
- Aplastic anemia
- Haemoglobinopathies.
  - Sickle cell syndromes

- Thalassaemias
- Myeloproliferative diseases.
  - Chronic myeloid leukemia (CML)
  - Polycythemia vera
  - Myelofibrosis
  - Essential thrombocytosis
- Leukemias.
  - Acute
  - Chronic
- Lymphomas
  - Non-Hodgkin's
  - Hodgkin's
- Blood groups and blood transfusion.
- Bone marrow transplantation.
- Disorders of haemostasis.
  - Thrombocytopenia
  - Idiopathic thrombocytopenic purpura (ITP)
  - Von Willebrand's disease.
- Vessel wall disorders.
- Disorders of coagulation.
  - Haemophilia
  - Vitamin K deficiency.
  - Disseminated intravascular coagulation (DIC).
- Anticoagulants Therapy
  - Heparin
  - Oral (warfarin etc.)
  - Vit. K infusion
- Antiplatelet drugs

## **f. Knowledge about subject**

### **g. Skills** - the clinical examination methods.

Injection I/V, I/M, S/C, intradermal

Collection of samples of blood/blood film preparation

Placement of I/V lines/fluids/blood/blood products, direct branula,

CVP line placement,

Observe bone marrow aspiration/ trephine

**h. Attitude** towards clinical state of patient judged by Consent for examination & tests , Empathy and Respect for Privacy, Autonomy & confidentiality of patient , Element of Humanity , Ethics & Justice

**i. Counseling** regarding diagnosis , Management , prognosis , prevention & follow up.

**j. TOS formation.**

### LEARNING OUTCOMES

|   |           |  |
|---|-----------|--|
| Should be able to take relevant history   |           |  |
| <u>Regarding diseases as listed above</u> | <u>PI</u> |  |
|   |           |  |

### SHOULD BE ABLE TO PERFORM EXAMINATION & PROCEDURES

|  |           |  |
|--|-----------|--|
| Should be able to perform  |           |  |
| <u>Systemic &amp; relevant general physical Examination</u>          | <u>PI</u> |  |
| <u>Injection I/V, I/M, S/C, intradermal</u>                          | <u>PI</u> |  |
| <u>Collection of samples of blood/blood film preparation</u>         | <u>PS</u> |  |
| <u>Placing I/V lines/fluids/blood/blood products, direct branula</u> | <u>A</u>  |  |
| <u>CVP line placement</u>  | <u>O</u>  |  |
| <u>Bone marrow aspiration/ trephine</u>                              | <u>O</u>  |  |

|   |           |  |
|---|-----------|--|
| should be able to diagnose and initiate management plan |           |  |
| <u>Regarding diseases as listed above</u>               | <u>PI</u> |  |

### **Mode of Information transfer & assessment tools for competencies:**

| Learning outcome | Mode of information transfer    | Assessment tool                                   |
|------------------|---------------------------------|---|
| History taking   | Bedside clinical teaching, Long | Case presentation & discussion/ongoing assessment |

|   |   |   |
|---|---|---|
|   | cases, Short cases  | by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)  |
| Physical examination  | Bedside clinical teaching/ Videos                             | Demonstration of physical examination skills under supervision/ ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum) |
| Awareness Regarding relevant investigations & management principles | Bedside clinical teaching/Lectures/Group discussion/Tutorials | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test, Class tests<br>MCQ, SAQ, LEQ   |
| Practical procedures  | Videos/practical demonstration/practice on manikins           | Ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum)   |
| Communication Skills  | Bedside clinical teaching/Group discussions/Tutorials         | Ongoing assessment by teachers/Bedside/TOACS  |

### 10. Course Title: DERMATOLOGY

**a. Teaching Hours:** Duration of Lecture Practical

**b. Number of lectures:**

**c. Course Duration:** 5<sup>th</sup> year

**d. Aims and Objectives of the program**

(i). Rationale

Important clinical implications as significant prevalence & incidence of these diseases. Special emphasis on the diseases common in Pakistan.

(ii). Learning Outcome.

To identify the various Skin Disorders & complications on basis of history, clinical examination & investigations & plan & initiate relevant management.

**e. Topics:**

- Anatomy, physiology of skin related to clinical dermatology
- Infestations: scabies, pediculosis.
- Bacterial and mycobacterial infections
- Fungal and viral diseases.
- Acne vulgaris
- Eczemas.
- Psoriasis
- Lichen planus

- Bullous disorders.
- Pigmentary disorders
- Disorders of nails.
- Disorders of hairs.
- Sexually transmitted diseases.

Identifying Lesions of:

- Leprosy
- Syphilitic lesions (chancre, secondary syphilis, gumma)
- Tinea (corporis, capitis, inguinale, unguam)
- Candida (oral, skin)
- Scabies
- Lice
- Mosquito bite
- Acute & chronic eczema
- Lesions of small pox, chicken pox, herpes simplex, herpes zoster
- SLE.
- Psoriasis
- Lichen planus
- Impetigo contagiosum
- Moluscum contagiosum
- Acne vulgaris
- Seborrhoea
- Exfoliative dermatitis
- Skin neoplasm like squamous cell carcinoma, basal cell carcinoma and melanoma
- Leukoderma
- Pityriasis versicolor
- Alopecia and hirsutism
- Sexually transmitted diseases
- Furunculosis, cellulitis
- Drug eruption

**f. Knowledge about subject**

**g. Skills** - the clinical examination methods, to identify lesions specific to various skin diseases

Scraping for fungus

Use of magnifying glass

Skin biopsy

Use of Wood's lamp

**h. Attitude** towards clinical state of patient judged by Consent for examination & tests, Empathy and Respect for Privacy, Autonomy & confidentiality of patient, Element of Humanity, Ethics & Justice

**i. Counseling** regarding diagnosis, Management, prognosis, prevention & follow up.

**j. TOS formation.**



## LEARNING OUTCOMES

|   |           |  |
|---|-----------|--|
| Should be able to take relevant history   |           |  |
| <u>Regarding diseases as listed above</u> | <u>PI</u> |  |
|   |           |  |

## SHOULD BE ABLE TO PERFORM EXAMINATION & PROCEDURES

|   |           |  |
|---|-----------|--|
| Should be able to perform   |           |  |
| <u>Systemic &amp; relevant general physical Examination to identify specific skin lesions</u> | <u>PI</u> |  |
| <u>Use of magnifying glass</u>  | <u>PI</u> |  |
| <u>Scraping for fungus</u>  | <u>PS</u> |  |
| <u>Skin biopsy</u>  | <u>O</u>  |  |
| <u>Use of Wood's lamp</u>   | <u>PS</u> |  |

|   |           |  |
|---|-----------|--|
| should be able to diagnose and initiate management plan |           |  |
| <u>Regarding diseases as listed above</u>               | <u>PI</u> |  |

## **Mode of Information transfer & assessment tools for competencies:**

| <b>Learning outcome</b> | <b>Mode of information transfer</b>                | <b>Assessment tool</b>   |
|-------------------------|--|--|
| History taking          | Bedside clinical teaching, Long cases, Short cases | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum) |
| Physical examination    | Bedside clinical teaching/ Videos                  | Demonstration of physical examination skills under supervision/ ongoing assessment by teachers (to be documented in ward card) ward                          |

|   |   |  |
|---|---|--|
|   |   | test (format as per competency based learning curriculum)  |
| Awareness Regarding relevant investigations & management principles | Bedside clinical teaching/Lectures/Group discussion/Tutorials | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test,Class tests<br>MCQ,SAQ,LEQ |

## 11. Course Title:PSYCHIATRY

a.Teaching Hours: Duration of Lecture

Practical

b.Number of lectures:

**c.Course Duration: 5<sup>th</sup> year**

**d.Aims and Objectives of the program**

(i).Rationale

Important clinical and social implications as high prevalence & incidence of diseases related to this system

(ii).Learning Outcome

To identify the Psychiatric Ailments on basis of history,Mental state and clinical examination, investigations then plan & initiate relevant management.

**e.Topics**

- **Mood disorders.**

- Major depressive episodes

- Unipolar
- Bipolar
- Dysthymic
- Atypical
  - Maniac episodes

- Anxiety disorders.

- Acute anxiety states
- Panic disorders
- Generalized anxiety disorders
- Post Trauma somatic disorders
- Obsessive-compulsive disorders
- Phobic disorders
- Schizophrenia.
- Alcoholism.
- Addiction.

Eating Disorders

- Psychosexual disorders in men and women.

Dementia

**f. Knowledge about subject**

**g. Skills** – the mental state examination

Counseling and psychoanalysis especially in patients with suicidal and homicidal attitude.

Procedures:

- Psychotherapy; CBT, Behavioral therapy, Interpersonal/family therapy
- Electroconvulsive Therapy (ECT)
- Electroencephalogram (EEG)

**h. Attitude** towards clinical state of patient judged by Consent for examination & tests, Empathy and Respect for Privacy, Autonomy & confidentiality of patient, Element of Humanity, Ethics & Justice

**i. Counseling** regarding diagnosis, Management & follow up.

**j. TOS formation.**

**LEARNING OUTCOMES**

|   |
|---|
| Should be able to take relevant history                           |
| <b><u>Regarding diseases as listed above</u></b> <b><u>PI</u></b> |

**SHOULD BE ABLE TO PERFORM EXAMINATION & PROCEDURES**

|  |                  |
|--|------------------|
| Should be able to perform  |                  |
| <b><u>Systemic &amp; relevant general physical Examination to identify mental state</u></b>              | <b><u>PI</u></b> |
| <b><u>Psychotherapy; CBT, Behavioral therapy, Interpersonal/family therapy</u></b>                       | <b><u>O</u></b>  |
| <b><u>ECT</u></b>  | <b><u>O</u></b>  |
| <b><u>EEG</u></b>  | <b><u>O</u></b>  |
| <b><u>Counseling and psychoanalysis especially in patients with suicidal and homicidal attitudes</u></b> | <b><u>O</u></b>  |

should be able to diagnose and initiate management plan

**Regarding diseases as listed above**

**PI**

**Mode of Information transfer & assessment tools for competencies:**

| <b>Learning outcome</b>   | <b>Mode of information transfer</b>                           | <b>Assessment tool</b>  |
|---|---|---|
| History taking  | Bedside clinical teaching, Long cases, Short cases            | Case presentation & discussion/ongoing assessment by teachers and documented in ward card) ward test (format as per competency based learning curriculum)                                     |
| Mental state examination  | Bedside, clinical teaching/ Videos                            | Demonstration of physical examination skills under supervision/ ongoing assessment by teachers (to be documented in ward card) ward test (format as per competency based learning curriculum) |
| Awareness Regarding relevant investigations & management principles | Bedside clinical teaching/Lectures/Group discussion/Tutorials | Case presentation & discussion/ongoing assessment by teachers (to be documented in ward card) ward test,Class tests<br><br>MCQ,SAQ,LEQ  |
| Communication Skills  | Bedside teaching, Role modelling                              | OSCE,360° evaluation  |

**12. MISCELLANEOUS Topics**

- Heat stroke
- Snake bite

- Electric shock
- Poisoning etc.

**THE LOG BOOK/CLINICAL CARD RECORD**

The student is expected to make a record of his/her achievements in the log book. The log book is a collection of evidence that learning has taken place, it is a reflective record of achievements. The log book shall also contain a record of the procedures which student would have performed in 3<sup>rd</sup>, 4<sup>th</sup> & 5<sup>th</sup> year.

Visit the hospital ward and take history. Review the laboratory investigations of these patients to find links among certain findings and their clinical picture.

Write down your own reflection on the above results in relation to the clinical findings of these patients in the following table:

| Patient ID# | Major findings |          |      | Self reflection | Teachers comment |
|-------------|----------------|----------|------|-----------------|------------------|
|             | History        | Clinical | Labs |                 |                  |
| 1.          |                |          |      |                 |                  |
| 2.          |                |          |      |                 |                  |
| 3.          |                |          |      |                 |                  |
| 4.          |                |          |      |                 |                  |
| 5.          |                |          |      |                 |                  |
| 6.          |                |          |      |                 |                  |
| 7.          |                |          |      |                 |                  |
| 8.          |                |          |      |                 |                  |
| 9.          |                |          |      |                 |                  |
| 10.         |                |          |      |                 |                  |
|             |                |          |      |                 |                  |

**Department of Medicine, CMH Lahore Medical College**

**List of Lectures in Medicine for Final Year MBBS 2021-22**

**Days/Timings:**      **Tuesdays (08:50-09:40)**

**Thursdays: (08:00-08:50 and 08:50-09:40)**

**Fridays: (08:00-08:50)**

**Venue: Lecture Hall-F**

| <b>Sr. No</b> | <b>Date/Time</b>         | <b>Topic</b>                       | <b>Instructor</b>              |
|---------------|--------------------------|------------------------------------|--------------------------------|
| 1             | 16-11-2021 (08:50-09:40) | ECG-I                              | Col. Jahanzab Ali              |
| 2             | 18-11-2021 (08:00-08:50) | ECG-II                             | Col. Jahanzab Ali              |
| 3             | 18-11-2021 (08:50-09:40) | Evaluation of a Jaundiced Patient  | Dr. Hala Mansoor               |
| 4             | 19-11-2021 (08:00-08:50) | IHD-I                              | Col. Ayaz Ahmed                |
| 5             | 23-11-2021 (08:50-09:40) | IHD-II                             | Col. Ayaz Ahmed                |
| 6             | 25-11-2021 (08:00-08:50) | Acute Hepatitis-I                  | Prof. Muhammad Siddique        |
| 7             | 25-11-2021 (08:50-09:40) | hypertension                       | Prof. Rizwana Kitchlew         |
| 8             | 26-11-2021 (08:00-08:50) | Acute Hepatitis-II                 | Prof. Muhammad Siddique        |
| 9             | 30-11-2021 (08:50-09:40) | Mitral valve disease               | Dr. Javed Iqbal                |
| 10            | 02-12-2021 (08:00-08:50) | Aortic valve disease               | Dr. Javed Iqbal                |
| 11            | 02-12-2021 (08:50-09:40) | Chronic Hepatitis-I                | Prof. Muhammad Siddique        |
| 12            | 03-12-2021 (08:00-08:50) | Chronic Hepatitis-II               | Prof. Muhammad Siddique        |
| 13            | 07-12-2021 (08:50-09:40) | Heart failure                      | Col. Ayaz Ahmed                |
| 14            | 09-12-2021 (08:00-08:50) | Pericarditis                       | Dr. Ahmed Usman                |
| 15            | 09-12-2021 (08:50-09:40) | Myocarditis and Cardiomyopathy     | Col. Jahanzab Ali              |
| 16            | 10-12-2021 (08:00-08:50) | Infective endocarditis             | Maj. Gen. Farhan Tuyyab        |
| 17            | 14-12-2021 (08:50-09:40) | Dyslipidemia                       | Brig. M. Faheem ur Rehman Khan |
| 18            | 16-12-2021 (08:00-08:50) | Upper GI Bleed-I                   | Prof. Muhammad Siddique        |
| 19            | 16-12-2021 (08:50-09:40) | Heart blocks                       | Dr. Ahmed Usman                |
| 20            | 17-12-2021 (08:00-08:50) | Upper GI Bleed-II                  | Prof. Muhammad Siddique        |
| 21            | 21-12-2021 (08:50-09:40) | Atrial and Ventricular arrhythmias | Col. Ayaz Ahmed                |

|  |                          |  |                                |
|--|--------------------------|--|--------------------------------|
| 22   | 23-12-2021 (08:00-08:50) | Heart disease in pregnancy and surgery           | Col. Jahanzab Ali              |
| 23   | 23-12-2021 (08:50-09:40) | Shock (Classification and Management)            | Brig. M. Faheem ur Rehman Khan |
| <b>Winter Vacations 24 December 2021 to 02 January, 2022</b> |                          |  |                                |
| 24   | 04-01-2022 (08:50-09:40) | Dysphagia & Odynophagia                          | Prof. Muhammad Siddique        |
| 25   | 06-01-2022 (08:00-08:50) | Autoimmune Hepatitis (AIH+PBC+PSC)               | Dr. Hala Mansoor               |
| 26   | 06-01-2022 (08:50-09:40) | Complications of Cirrhosis Ascites+SBP+HRS       | Prof. Muhammad Siddique        |
| 27   | 07-01-2022 (08:00-08:50) | Fulminant Hepatic Failure/Hepatic Encephalopathy | Prof. Muhammad Siddique        |
| 28   | 11-01-2022(08:50-09:40)  | HCC+ Liver Transplant                            | Dr. Hala Mansoor               |
| 29   | 13-01-2022 (08:00-08:50) | Liver Disease in Pregnancy                       | Dr. Hala Mansoor               |
| 30   | 13-01-2022 (08:50-09:40) | Liver Abscess                                    | Prof. Muhammad Siddique        |
| 31   | 14-01-2022 (08:00-08:50) | Metabolic syndrome including NAFLD and Obesity   | Prof. Muhammad Siddique        |
| 32   | 18-01-2022 (08:50-09:40) | Wilson disease/Hemochromatosis                   | Prof. Muhammad Siddique        |
| 33   | 20-01-2022 (08:00-08:50) | GERD   | Dr. Hala Mansoor               |
| 34   | 20-01-2022 (08:50-09:40) | Achalasia /DES                                   | Prof. Muhammad Siddique        |
| 35   | 21-01-2022 (08:00-08:50) | Peptic Ulcer                                     | Dr. Hala Mansoor               |
| 36   | 25-01-2022 (08:50-09:40) | Inflammatory Bowel Disease-I                     | Prof. Muhammad Siddique        |
| 37   | 27-01-2022 (08:00-08:50) | Inflammatory Bowel disease-II                    | Prof. Muhammad Siddique        |
| 38   | 27-01-2022 (08:50-09:40) | Acute Diarrhea                                   | Col. Rafi Ud Din               |
| 39   | 28-01-2022 (08:00-08:50) | Chronic Diarrhea/Malabsorption/Celiac disease    | Dr. Hala Mansoor               |

|    |                          |  |   |
|----|--------------------------|--|---|
| 40 | 01-02-2022 (08:50-09:40) | Acute Pancreatitis   | Prof. Muhammad Siddique                         |
| 41 | 03-02-2022 (08:00-08:50) | Chronic Pancreatitis   | Dr. Hala Mansoor                                |
| 42 | 03-02-2022 (08:50-09:40) | Lower GI Bleed   | Prof. Muhammad Siddique                         |
| 43 | 04-02-2022 (08:00-08:50) | Infectious Esophagitis/ Pill Esophagitis<br>Corrosive injury | Prof. Muhammad Siddique                         |
| 44 | 08-02-2022 (08:50-09:40) | Pneumonia  | Brig. Muhammad Khalid Azam                      |
| 45 | 10-02-2022 (08:00-08:50) | Pleural Effusions  | Dr. Javed Iqbal                                 |
| 46 | 10-02-2022 (08:50-09:40) | Bronchial Asthma   | Brig. Muhammad Khalid Azam                      |
| 47 | 11-02-2022 (08:00-08:50) | COPD   | Dr. Javed Iqbal                                 |
| 48 | 15-02-2022 (08:50-09:40) | Pulmonary Hypertension                                       | Brig. Muhammad Khalid Azam                      |
| 49 | 17-02-2022 (08:00-08:50) | ILD/DPLD   | Brig. Muhammad Khalid Azam                      |
| 50 | 17-02-2022 (08:50-09:40) | Tuberculosis   | Dr. Javed Iqbal                                 |
| 51 | 18-02-2022 (08:00-08:50) | Respiratory Failure/ARDS                                     | Prof. Rizwana Kitchlew                          |
| 52 | 22-02-2022 (08:50-09:40) | CA Lung  | Brig. Muhammad Khalid Azam                      |
| 53 | 24-02-2022 (08:00-08:50) | DVT+ Pulmonary embolism                                      | Prof. Rizwana Kitchlew                          |
| 54 | 24-02-2022 (08:50-09:40) | Sarcoidosis  | Dr. Javed Iqbal                                 |
| 55 | 25-02-2022 (08:00-08:50) | Lung abcess  | Brig. Muhammad Khalid Azam                      |
| 56 | 01-03-2022 (08:50-09:40) | Dengue Fever   | Prof. Rizwana Kithchlew                         |
| 57 | 03-03-2022 (08:00-08:50) | Malaria  | Dr. Hala Mansoor                                |
| 58 | 03-03-2022 (08:50-09:40) | Enteric Fever  | Maj. Gen. Karamat Hussain Shah<br>Bukari HI (M) |
| 59 | 04-03-2022 (08:00-08:50) | Brucelosis/Infectious Mononucleosis                          | Maj. Gen. Karamat Hussain Shah<br>Bukari HI (M) |

**Sports Week (Tentatively)**

**07 March 2022 to 13 March 2022**



|  |                          |  |                                |
|--|--------------------------|--|--------------------------------|
| 60   | 15-03-2022 (08:50-09:40) | HIV  | Brig. M. Faheem ur Rehman Khan |
| 61   | 17-03-2022 (08:00-08:50) | Guide to Immunization in Adults                        | Dr. Saba Saif                  |
| 62   | 17-03-2022 (08:50-09:40) | Sexually transmitted diseases                          | Prof. Muhammad Siddique        |
| 63   | 18-03-2022 (08:00-08:50) | Amebiasis/Giardiasis                                   | Prof. Rizwana Kitchlew         |
| <b>Midterm Exam 21 March 2022 to 27 March 2022</b> |                          |  |                                |
| <b>Medicine Paper 22 March 2022</b>                |                          |  |                                |
| 64   | 29-03-2022 (08:50-09:40) | Toxoplasmosis/cryptococcal infection                   | Brig. M. Faheem ur Rehman Khan |
| 65   | 31-03-2022 (08:00-08:50) | Headache/Migraine                                      | Prof. Rizwana Kitchlew         |
| 66   | 31-03-2022 (08:50-09:40) | Epilepsy   | Dr. Saba Saif                  |
| 67   | 01-04-2022 (08:00-08:50) | Parkinsonism   | Prof. Rizwana Kitchlew         |
| 68   | 05-04-2022 (08:50-09:40) | Multiple Sclerosis                                     | Prof. Rizwana Kitchlew         |
| 69   | 07-04-2022 (08:00-08:50) | Cerebellar Disease                                     | Lt. Col. Muhammad Ali Yousaf   |
| 70   | 07-04-2022 (08:50-09:40) | CVA-I (Thrombotic and Embolic)                         | Dr. Hala Mansoor               |
| 71   | 08-04-2022 (08:00-08:50) | CVA-II (Hemorrhagic including SAH)                     | Brig. Dr. Javed Iqbal (R)      |
| 72   | 12-04-2022 (08:50-09:40) | Encephalitis/Amebic meningoencephalitis                | Lt. Col. Muhammad Ali Yousaf   |
| 73   | 14-04-2022 (08:00-08:50) | Brain abscess and SOL                                  | Lt. Col. Muhammad Ali Yousaf   |
| 74   | 14-04-2022 (08:50-09:40) | Dementia   | Prof. Rizwana Kitchlew         |
| 75   | 15-04-2022 (08:00-08:50) | Neuropathies   | Prof. Rizwana Kitchlew         |
| 76   | 19-04-2022 (08:50-09:40) | Motor Neuron Disease                                   | Lt. Col. Muhammad Ali Yousaf   |
| 77   | 21-04-2022 (08:00-08:50) | Meningitis(classification,presentation and management) | Dr. Hala Mansoor               |
| 78   | 21-04-2022 (08:50-09:40) | GB syndrome/ Bells palsy                               | Brig. Dr. Javed Iqbal (R)      |

|  |                          |                                    |                         |
|--|--------------------------|------------------------------------|-------------------------|
| 79   | 22-04-2022 (08:00-08:50) | Myopathies                         | Dr. Saba Saif           |
| 80   | 26-04-2022 (08:50-09:40) | Acute Kidney injury                | Col. Zahid Farooq Baig  |
| 81   | 28-04-2022 (08:00-08:50) | Assessment of renal disease        | Dr. Samina Fida         |
| 82   | 28-04-2022 (08:50-09:40) | Glomerulo nephritis                | Col. Zahid Farooq Baig  |
| 83   | 29-04-2022 (08:00-08:50) | Nephrotic Syndrome                 | Col. Zahid Farooq Baig  |
| <b>Eid ul Fitar (Tentatively) 03-05 May 2022</b> |                          |                                    |                         |
| 84   | 06-05-2022 (08:00-08:50) | Renal infections including TB      | Dr. Samina Fida         |
| 85   | 10-05-2022 (08:50-09:40) | Chronic Kidney Disease             | Col. Zahid Farooq Baig  |
| 86   | 12-05-2022 (08:00-08:50) | Renal Replacement/transplant       | Col. Zahid Farooq Baig  |
| 87   | 12-05-2022 (08:50-09:40) | Acid Base-I                        | Dr. Samina Fida         |
| 88   | 13-05-2022 (08:00-08:50) | Acid Base-II                       | Dr. Samina Fida         |
| 89   | 17-05-2022 (08:50-09:40) | RTA and Tubulointerstitial Disease | Col. Zahid Farooq Baig  |
| 90   | 19-05-2022 (08:00-08:50) | Electrolyte imbalance-I            | Col. Zahid Farooq Baig  |
| 91   | 19-05-2022 (08:50-09:40) | Acute Leukemia-I                   | Col. Faisal Mehmood     |
| 92   | 20-05-2022 (08:00-08:50) | Electrolyte imbalance-II           | Col. Zahid Farooq Baig  |
| 93   | 24-05-2022 (08:50-09:40) | CML                                | Col. Faisal Mehmood     |
| 94   | 26-05-2022 (08:00-08:50) | CLL                                | Col. Faisal Mehmood     |
| 95   | 26-05-2022 (08:50-09:40) | Myelofibrosis and MDS              | Dr. Javed Iqbal         |
| 96   | 27-05-2022 (08:00-08:50) | Lymphomas / Non Hodgkins           | Col. Faisal Mehmood     |
| 97   | 31-05-2022 (08:50-09:40) | Aplastic anemia                    | Dr. Javed Iqbal         |
| 98   | 02-06-2022 (08:00-08:50) | Multiple Myeloma                   | Prof. Muhammad Siddique |
| 99   | 02-06-2022 (08:50-09:40) | ITP                                | Prof. Rizwana Kitchlew  |

|  |                          |  |  |
|--|--------------------------|--|--|
| 100  | 03-06-2022 (08:00-08:50) | Clotting disorders(Hemophilia Von Willibrand disorder)   | Dr. Javed Iqbal                        |
| 101  | 07-06-2022 (08:50-09:40) | Blood Products principles of replacements and adverse reactions                                | Brig. M. Faheem ur Rehman Khan         |
| 102  | 09-06-2022 (08:00-08:50) | Hemolytic uremic syndrome, TTP and DIC   | Dr. Hala Mansoor                       |
| 103  | 09-06-2022 (08:50-09:40) | Polycythemia   | Brig. M. Faheem ur Rehman Khan         |
| 104  | 10-06-2022 (08:00-08:50) | Diabetes Mellitus-I  | Maj. Gen. Karamat Hussain Shah Bukhari |
| 105  | 14-06-2022 (08:50-09:40) | Diabetes Mellitus-II Treatment non pharmacologic and pharmacologic                             | Maj. Gen. Karamat Hussain Shah Bukhari |
| 106  | 16-06-2022 (08:00-08:50) | Complications of Diabetes (microvascular &macrovascular)                                       | Dr. Javed Iqbal                        |
| 107  | 16-06-2022 (08:50-09:40) | Diabetes mellitus complications (Hyperglycemic Hyperosmolar state HHS) &Diabetic Ketoacidosis) | Prof. Rizwana Kitchlew                 |
| 108  | 17-06-2022 (08:00-08:50) | Hypothyroidism   | Dr. Javed Iqbal                        |
| <b>Summer Vacations 18 June 2022 to 17 July 2022</b> |                          |  |  |
| 109  | 19-07-2022 (08:50-09:40) | Hyperthyroidism  | Prof. Rizwana Kitchlew                 |
| 110  | 21-07-2022 (08:00-08:50) | Addison's disease  | Dr. Javed Iqbal                        |
| 111  | 21-07-2022 (08:50-09:40) | Parathyroid Disease  | Dr. Saba Saif                          |
| 112  | 22-07-2022 (08:00-08:50) | Cushing disease  | Prof. Muhammad Siddique                |
| 113  | 26-07-2022 (08:50-09:40) | Pheochromocytoma   | Brig. M. Faheem ur Rehman Khan         |
| 114  | 28-07-2022 (08:00-08:50) | MEN  | Brig. M. Faheem ur Rehman Khan         |
| 115  | 28-07-2022 (08:50-09:40) | Diseases of pituitary glands   | Dr. Samina Fida                        |
| 116  | 29-07-2022 (08:00-08:50) | Myasthenia gravis  | Dr. Hala Mansoor                       |

|                                       |                          |   |                                   |
|---------------------------------------|--------------------------|---|-----------------------------------|
| 117                                   | 02-08-2022 (08:50-09:40) | SLE   | Dr. Saba Saif                     |
| 118                                   | 04-08-2022 (08:00-08:50) | RA  | Prof. Rizwana Kitchlew            |
| 119                                   | 04-08-2022 (08:50-09:40) | Systemic Sclerosis                            | Dr. Saba Saif                     |
| 120                                   | 05-08-2022 (08:00-08:50) | GOUT/Pseodogout                               | Dr. Saba Saif                     |
| <b>Ashurah (Tentatively)</b>          |                          |   | <b>08-09 Aug 2022</b>             |
| 121                                   | 11-08-2022 (08:00-08:50) | Seronegative Arthritis/Ankylosing spondylitis | Dr. Saba Saif                     |
| 122                                   | 11-08-2022 (08:50-09:40) | Vasculitis-Wegeners, Churg strauss            | Prof. Rizwana Kitchlew            |
| 123                                   | 12-08-2022 (08:00-08:50) | Osteoporosis/Osteomalacia                     | Dr. Saba Saif                     |
| 124                                   | 16-08-2022 (08:50-09:40) | PMR/polymyositis                              | Dr. Saba Saif                     |
| 125                                   | 18-08-2022 (08:00-08:50) | Nuclear Medicine                              | Lt. Col. Umer –I- Farooq          |
| 126                                   | 18-08-2022 (08:50-09:40) | Nuclear Medicine(Cardiac and Pulmonary)       | Lt. Col. Umer –I- Farooq          |
| 127                                   | 19-08-2022 (08:00-08:50) | Nuclear Medicine (GI and Liver)               | Lt. Col. Umer –I- Farooq          |
| <b>Prep Leave for Pre-Annual Exam</b> |                          |   | <b>20 Aug 2022 to 01 Sep 2022</b> |
| <b>Pre-Annual Exam / OSPE</b>         |                          |   | <b>02 Sep 2022 to 19 Sep 2022</b> |
| <b>Medicine Paper (Written)</b>       |                          |   | <b>02 Sep 2022</b>                |
| <b>OSPE</b>                           |                          |   | <b>14 15 16 19 Sep 2022</b>       |
| <b>Prep Leave for Prof Exam</b>       |                          |   | <b>20 Sep to 09 Oct 2022</b>      |
| <b>NUMS Annual Exam Date</b>          |                          |   | <b>10 Oct 2022 onward</b>         |

Prof.

Dr. Muhammad Siddique

Head Department of Medicine

CMH Lahore Medical College

The Lecture should start with a Clinical Scenario followed by Interactive Session.

Prof. Dr. Muhammad Siddique  
Head Department of Medicine

**3.DEPARTMENT OF MEDICINE, CMH LAHORE MEDICAL COLLEGE****AMENDED-CLINICAL TEACHING SCHEDULE FOR FINAL YEAR MBBS 2021-22 (MORNING) (w.e.f 10 Jan, 2022)**

| Days      | Time           | Topics   | Medical-I   | Medical-II                                      |
|-----------|----------------|--|---|---|
| Monday    | 11:00 to 12:30 | <b>Problem based learning</b><br>Case Discussion                             | Prof. Rizwana Kitchlew<br>(0301-8438002)          | Col. Rafi Ud Din<br>(0333-4099057)              |
|           | 12:30 to 02:00 | <b>Problem based learning</b><br>Clinical methods/<br>Drugs/Instruments/Xray | Prof. Muhammad Siddique<br>(0321-8422933)         | Lt Col. Usman Ali<br>(0333-5258209)             |
|           | 02:00 to 03:00 | <b>Self-Learning, Preparation of the case for next day</b>                   |   |   |
| Tuesday   | 11:00 to 12:30 | <b>Problem based learning</b><br>Case Discussion                             | Lt. Col. Muhammad Ali<br>Yousaf<br>(0321-5562666) | Col. Faisal Mehmood<br>(0330-4091155)           |
|           | 12:30 to 02:00 | <b>Problem based learning</b><br>Clinical methods/<br>Drugs/Instruments/Xray | Maj. Gen. Karamat Hussain<br>Shah Bukhari HI (M)  | Brig. Muhammad<br>Khalid Azam<br>(0333-5147758) |
|           | 02:00 to 03:00 | <b>Self-Learning, Preparation of the case for next day</b>                   |   |   |
| Wednesday | 11:00 to 12:30 | <b>Problem based learning</b><br>Case Discussion                             | Prof. Rizwana Kitchlew<br>(0301-8438002)          | Lt. Col. M. Adnan<br>Manzar<br>(0345-5109608)   |
|           | 12:30 to 02:00 | <b>Problem based learning</b><br>Clinical methods/<br>Drugs/Instruments/Xray | Prof. Muhammad Siddique<br>(0321-8422933)         | Brig. Muhammad<br>Khalid Azam<br>(0333-5147758) |
|           | 02:00 to 03:00 | <b>Self-Learning, Preparation of the case for next day</b>                   |   |   |
| Thursday  | 11:00 to 12:30 | <b>Problem based learning</b><br>Case Discussion                             | Brig. M. Faheem ur<br>Rehman Khan                 | Col. Faisal Mehmood<br>(0330-4091155)           |
|           | 12:30 to 02:00 | <b>Problem based learning</b><br>Clinical methods/<br>Drugs/Instruments/Xray | Maj. Gen. Karamat Hussain<br>Shah Bukhari HI (M)  | Col. Rafi-ud- Din<br>(0333-4099057)             |
|           | 02:00 to 03:00 | <b>Self-Learning, Preparation of the case for next day</b>                   |   |   |
| Friday    | 10:30 to 12:30 |  | Prof. Rizwana Kitchlew<br>(0301-8438002)          | Brig. (R). Javed Iqbal<br>(0334-5414590)        |

**\*On the first day of 1<sup>st</sup> rotation orientation regarding medical ward, equipment, students and patient safety will be given.**

**Prof. Dr. Muhammad Siddique**  
**Head of Medicine Department**  
**CMH Lahore Medical College**

**DEPARTMENT OF MEDICINE, CMH LAHORE MEDICAL COLLEGE**  
**AMENDED-CLINICAL TEACHING SCHEDULE FOR FINAL YEAR MBBS 2021-22**

**(AFTERNOON) (w.e.f 10 Jan, 2022)**

**TIMINGS: (03:00PM TO 05:00PM)**

| <b>Day</b> | <b>Final Year</b>  | <b>Supervision by</b>                  |
|------------|--|--|
| Monday     | Dr. Hanniyah Batool Naqvi (Medical unit-I)<br>(0333-9272928) | Maj. Bilal Munir /<br>Maj. Amna Ashraf |
|            | Dr. Sanaa Aslam (Medical unit-II)<br>(0320-9567375)          |  |
| Tuesday    | Dr. Noor Ghani (Medical unit-I)<br>(0333-4382422)            | Maj. Bilal Munir /<br>Maj. Amna Ashraf |
|            | Dr. M. Arslan Javed (Medical unit-II)<br>(0332-4521557)      |  |
| Wednesday  | Dr. Sobia Aslam (Medical unit-I)<br>(0340-0820997)           | Maj. Bilal Munir /<br>Maj. Amna Ashraf |
|            | Dr. Ayesha Malik (Medical unit-II)<br>(0344-4348485)         |  |
| Thursday   | Dr. Yamina Nasir (Medical unit-I)<br>(0345-6736400)          | Maj. Bilal Munir /<br>Maj. Amna Ashraf |
|            | Dr. Aqsa Javaid (Medical unit-II)<br>(0332-3322598)          |  |

- Adherence to timings is requested
- All faculty members requested to follow the clinical teaching schedule

**Prof. Dr. Muhammad Siddique**  
**Head Department of Medicine**  
**CMH Lahore Medical College**

## e) Learning Resources:

- Library : books ,Journals and Internet
- Medical Wards
- OPDs
- Classroom

Student should follow this study guide to learn about the various topics listed in the courses from different resources including formal lectures, literature search, clinical bedside teaching along with performing certain activities to learn on your own through meeting clinicians, performing community based assignments visiting different departments of the hospital along with writing down your own reflections.

## f) Other Learning Resources

### RECOMMENDED BOOKS:

1. **Practice of Medicine** by Davidson.
2. **Clinical Medicine** by Parveen J Kumar & Michael Clark
3. **Hutchison's Clinical Methods** by Michael Swash. 21st edition Davidson's
4. **Current Medical Diagnosis and Treatment**
5. **Oxford Handbook of Clinical Medicine**
6. **Macleod Clinical Methods**
7. **Basic psychiatry** by MyreSim, e. B. Gordon
8. **Oxford Text Book of Psychiatry**
9. **ABC of Dermatology**. Latest Edition.
10. **Smith's General Urology** by Emil A. Tanagho and Jack W. McAninch 15th edition. 2007 VI.
11. **Reference Book**
  - a) Harrison Clinical Methods
12. **Online Journals and Reading Materials** through HEC Digital Library Facility
13. Video Links: <http://www.medcram.com/>, <http://www.medtube.net/>

## **g) SUMMATIVE ASSESSMENT METHODS AND POLICIES**

### **Internal Assessment**

- a. Weightage of internal assessment shall be 10 %, each for theory and practical, in MBBS Professional Examination.
- b. The Internal Assessment shall comprise of monthly test / assignments / class presentation / send-ups /class tests / OSPE etc.
- c. The Internal Assessment record shall be kept in the respective department of the College / Institute .
- d. The result of all the class tests / tools which contribute towards IA will be displayed to the students during an academic year.
- e. The same internal assessment shall be counted both for annual and supplementary examinations.

### **Annual Examination**

- a. The weightage of Annual Examination shall be 90%, each for theory and practical, in MBBS.
- b. The examination comprises of a theory paper and practical/clinical examinations as per PM&DC regulations and the Table of Specifications (TOS) of the University.
- c. The gap between two consecutive theory papers shall not be more than two days.
- d. The Theory Paper shall be of 3-hours duration, held under the arrangements of the university. It shall have two parts; MCQs and SEQs for the year 2021. It may be changed after the approval of Academic Council.

### **Distribution of subjects**

#### ***Paper-I will include:***

|  |
|--|
| • Dermatology  |
| • Poisoning/animal bites   |
| • Nutrition/obesity/ Cholesterol<br>• related &Genetic disorders |
| • Neurology/muscle disorders                                     |
| • Gastroenterology   |
| • Liver/pancreas   |
| • Rheumatology/bones   |
| • Endocrinology  |



- Diabetes

***Paper-II will include:***

- Psychiatry & Mental Health
- Haematology & transfusion medicine
- Cardiovascular system
- Pulmonology
- Nephrology, Dialysis & Transplant
- Infections
- Oncology, Diseases of Lymph Nodes & Bone Marrow
- Critical Care & emergency
- Pharmacotherapeutics

- **Pass Marks**

- Pass marks for all subjects shall be 50 % in theory and practical, separately.
- No grace marks shall be allowed to any student in any examination.

## h) Table of specification

### Pre-Annual/Final Professional Examination (Theory)

#### **MEDICINE PAPER – I (2020)**

|                                  |                              |
|----------------------------------|------------------------------|
| Time Allowed                     | 03 hrs. (Including MCQs)     |
| <b><u>MCQs:</u></b>              |                              |
| a) Time Allowed                  | (1 Hour 20 Mins)             |
| b) Total Questions (70)          | Single best out of 4 options |
| c) Marks (1 mark each x 70)      | 70 marks                     |
| <b><u>SAQs/SEQs:</u></b>         |                              |
| a) Time Allowed                  | (01 hour 40 Mins)            |
| b) Total Questions               | 09                           |
| c) Marks (07 marks each x 8)     | 56                           |
| d) 09 marks x 1<br>(Dermatology) | 09                           |
| e) Internal Assessment           | 15                           |
| ✓ Total Marks                    | 150                          |

✓ Pass Marks

75

| <b>Topics</b>  | <b>Number of MCQs<br/>(70) Recall: 07<br/>(10%)<br/>Application: 63<br/>(1 mark each)</b> | <b>Number of SAQs/SEQs<br/>(09) (Application)<br/>(5 mark each)</b> |
|--|---|---|
| Dermatology  | 10  | 1   |
| Poisoning/animal bites                                     | 04  | 1   |
| Nutrition/obesity/ Cholesterol related & Genetic disorders | 04  |   |
| Neurology/muscle disorders                                 | 12  | 1   |
| Gastroenterology   | 10  | 2   |
| Liver/pancreas   | 08  | 1   |
| Rheumatology/ bones  | 10  | 1   |
| Endocrinology  | 06  | 1   |
| Diabetes   | 06  | 1   |
| <b>Total</b>   | <b>70 (70)</b>  | <b>09 (65)</b>  |

## Pre-Annual/Final Professional Examination (Theory)

### MEDICINE PAPER – II (2020)

|                             |                              |
|-----------------------------|------------------------------|
| Time Allowed                | 03 hrs. (Including MCQs)     |
| <b>MCQs:</b>                |                              |
| • Time Allowed              | (1 Hour 20 Mins)             |
| • Total Questions (70)      | Single best out of 4 options |
| • Marks (1 mark each x 70)  | 70 marks                     |
| <b>SAQs/SEQs:</b>           |                              |
| • Time Allowed              | (01 hour 40 Mins)            |
| • Total Questions           | 09                           |
| • Marks (07 marks each x 8) | 56                           |
| • 09 marks x 1 (Psychiatry) | 09                           |
| • Internal Assessment       | 15                           |
| ✓ Total Marks               | 150                          |
| ✓ Pass Marks                | 75                           |

| Topics  | Number of MCQs<br>(70) Recall: 07<br>Application: 63<br>(1 mark each) | Number of<br>SAQs/SEQs<br>(09)<br><br>(07 mark<br>each<br><br>Psychiatry<br>9 marks) |
|---|---|--|
| Psychiatry & Mental Health                      | 10  | 1  |
| Haematology & Transfusion Medicine              | 06  | 1  |
| Cardiovascular system                           | 13  | 2  |
| Pulmonology                                     | 13  | 1  |
| Nephrology, Dialysis & Transplant               | 09  | 1  |
| Infections                                      | 09  | 1  |
| Oncology, Diseases of Lymph Nodes & Bone Marrow | 04  | 1  |
| Critical Care & emergency                       | 06  | 1  |
| Pharmacotherapeutics                            | -   | -  |
| <b>Total</b>                                    | <b>70 (70)</b>  | <b>09 (65)</b>   |

## Table of Specification for Practical Examination- Medicine 2020

Max Marks = 270

Internal Assessment =

30

✓ **Grand Total** = 300

✓ **Pass Marks** = 150

| CYCLE I (OSCE)                      |         |      |        |                |             |                         |                         |                              |                      |                   |                               | CYCLE II (in ward)  |         |     |     |   |  |  |  |
|-------------------------------------|---------|------|--------|----------------|-------------|-------------------------|-------------------------|------------------------------|----------------------|-------------------|-------------------------------|---------------------|---------|-----|-----|---|--|--|--|
| 8 x Non-Observed Static Stations    |         |      |        |                |             |                         |                         | 04 x Observed Static Station |                      |                   |                               | 04 x Short Case     |         |     |     | 1 x Long Case Observed & Structured                             |  |  |  |
| 1                                   | 2       | 3    | 4      | 5              | 6           | 7                       | 8                       | 9                            | 10                   | 11                | 12                            | 1                   | 2       | 3   | 4   |   |  |  |  |
| Procedural skills/Diagnostic skills |         |      |        |                |             |                         |                         | Exam skills                  | Communication skills | Management skills | Exam skills                   |                     |         |     |     |   |  |  |  |
| DP/TP                               | IAT/TP  | TP   | IAT/TP | IAT/TP         | TP          | IAT/TP                  | IAT/TP                  | SI                           | SI                   | OC                | TP                            | CF                  |         |     |     | HT, CE, Clinical reasoning                                      |  |  |  |
| Patient Safety/ Infection control   | Picture | Drug | EKG    | X-Ray/ CT Scan | Instruments | Haem Data Interpretatio | Endo Data Interpretatio | Dermatology                  | Psychiatry           | Counselling       | Emergency Medicine/ BLS/ ACLS | Respirator y System | Abdomen | CNS | CVS | Focused History & Examination/ investigation n plan & Managemen |  |  |  |
| 10                                  | 10      | 10   | 10     | 10             | 10          | 10                      | 10                      | 10                           | 10                   | 10                | 10                            | 20                  | 20      | 20  | 20  | 70  |  |  |  |
| <b>80 Marks</b>                     |         |      |        |                |             |                         |                         | <b>40 Marks</b>              |                      |                   |                               | <b>80 Marks</b>     |         |     |     | <b>70 Marks</b>   |  |  |  |

|   |   |   |
|---|---|---|
| <p><b>5 minutes for each station 12 x 5 = 60 Minutes</b><br/> <b>For 25 students = 125 Minutes= 2hrs 5 minutes</b></p>  | <p><b>5 minutes for each station</b><br/> <b>For 04 students: 20 minutes</b><br/> <b>For 25 students = 140 Minutes</b><br/> <b>= 2 hrs 20 minutes</b></p> | <p><b>Two parallel long case</b></p> <ul style="list-style-type: none"> <li>• <b>15 minutes for each student</b></li> <li>• <b>For 13 students: 15 x 13 = 3 hours 25 minutes</b></li> </ul> |
| <ul style="list-style-type: none"> <li>• Static station must include Rheumatology, Endocrinology, Nephrology, Haematology</li> <li>• Number of rest stations depends upon the number of students</li> </ul> |   |   |

**Communication:** **HT**=Focused History Taking, **OC**=other communication.

**Examination:** **CE** = Clinical examination, **SI**= Sign Identification.

**Procedural skills:** **DP**=Diagnostic Procedure, **TP**=Therapeutic Procedure, **IATF**=Identification of Abnormal Test Finding

## INTERNAL ASSESSMENT CALCULATION FOR THEORY PAPER

|   |                 |
|---|-----------------|
| Internal Assessment                                   |                 |
| Periodical class tests / End of module /rotation exam | <b>30 Marks</b> |

## INTERNAL ASSESSMENT CALCULATION FOR PRACTICAL

|  |                 |
|--|-----------------|
| Internal Assessment  |                 |
| Log book/CBL performance/ End of module /rotation practical<br>Exam/OSCE/ Workshop | <b>30 Marks</b> |

### i) Sample MCQs and SEQs

#### Multiple Choice Questions (MCQs)

- A multiple choice question (MCQ) consist of a stem that states the question or problem followed by a set of four possible answers that contain an option that is best answer to the question.
- After reading the questions students should select the appropriate option from the given possible answers.
- The correct answer carries one mark and incorrect carries zero. There is no negative marking.

#### Sample MCQ

1. A 52 years old patient presents with complain of productive cough and fever for 7 days. His chest X-ray shows cavitating lesion with consolidation in left upper lobe. The likely causative organism is
  - a. Hemophilus Influenzae
  - b. Klebsiella Pneumoniae
  - c. Mycoplasma Pneumoniae
  - d. Streptococcus Pneumoniae

**Key: b**

### Short essay question (SEQs)

- Short essay questions require students to present written answers that are used to assess basic knowledge of key facts and provide students with an opportunity to demonstrate reasoning and explain their understanding of the subject.

### Sample SEQ

**Q.** A 20 year old girl presented with complaints of joint pains, oral ulcers and hair loss for 8 months. On examination she had discoid lesions on her face and signs of left sided pleural effusion. Blood Complete picture revealed pancytopenia .

- a) What is the probable diagnosis? (1)
- b) Enlist six further relevant investigations ? (3)
- c) Enumerate three indications for steroid use in this condition. (3)

### KEY

a. SYSTEMIC LUPUS ERYTHEMATOSUS

b. Investigations

1. X-ray Chest PA view
2. Diagnostic pleural tap
3. ANA
4. Anti ds-DNA / Anti Sm antibody-ENA Profile
5. Complement levels (C3, C4 ↓)
6. Complete urine analysis

c. Treatment

Steroids for glomerulonephritis, hemolytic anemia, Pericarditis, CNS involvement

**j) Feedback:**

We only try to help you manage your learning among the thousands of resources in this evolving field. We strongly recommend to link your learning with your clinical setting. Only keep an eye on the learning objectives grid. We sincerely appreciate your feedback as a student reader and a future colleague.

If you have any suggestions for improvement,

Please do not hesitate to contact me.

Prof. Rizwana Kitchlew

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