# MD Pediatrics Medicine

## 1. Introduction

### a. University

**Liaquat University of Medical and Health Sciences Jamshoro Pakistan is country's' first public sector medical university which had started as medical college about fifty years ago. It has produced thousands of medical graduates and post graduates since then. University is ranked second in all medical universities and first highest ranking in public sector universities of Pakistan by higher education commission Government of Pakistan. University has 1200 bed teaching hospital**

### b. Department

**Paediatrics department at LUMHS is 100 bed hospitals. This department is looking after about 10.000 indoor children and 50,000 out door children. It is training about 40 post graduate students in pediatrics diplomas and degrees. Department is first to start Pre service IMNCI in EMRO region. It is also training health care personnel in IMNCI, ENC and other child survival programs. It has held successful national pediatrics conference in 2007 on the platform of Pakistan Paediatrics Association after ward continues to held yearly research symposia, conferences and CME seminars.**

## 2. MD Program Mission Statement

**The mission of degree program for paediatrics is to develop paediatricians having sound knowledge, clinical and teaching skills and having managerial decision making abilities to work at teaching institutions, district hospitals and community health care planning. He will be able to be paediatrics consultant and teacher to teach, train and evaluate undergraduate and post graduate medical students. He will be able to design and conduct research projects.**

## 3. Faculty

### ORGANOGRAM

**Paediatrics department was created in 1964 as a part of then Liaquat Medical College and Hospital by Government of Sindh. Paediatrics Department has two units. Unit I is headed by Prof Shazia Memon, Unit II is headed by Chairperson Prof. Farzana Shaikh.Department**

**works under the Dean Medicine and Allied Prof. Moin Ahmed Ansari and Vice chancellor of Liaquat University of Medical and Health Sciences Jamshoro Prof. Ikramuddin Ujjan.**

**PROF. DR. SHAZIA MEMON**
**INCHARGE UNITI**
**LUMHS JAMSHORO**

**PROF. DR. FARZANA SHAIKH**
**CHAIRPERSON & INCHARGE UNITII**
**LUMHS JAMSHORO**

**PROF. CHAITAN DAS**
**INCHARGE PICU**
**LUMHS JAMSHORO**

**PROF. GHULAM SHABBIR**

**DR. ABDUL HAMEED RADHAN**
**ASSOCIATE PROFESSOR**

**DR. MUSHTAQ AHMED**
**ASSPCIATE PROFESSOR**

**DR. FOZIA BALOCH**
**ASSOCITE PROFESSOR**

**DR SAROOP CHAND**
**ASSISTANT PROFESSOR &**
**INCHRAGE NICU**

**DR. KHUDA BUX KHOSO**
**ASSISTANT PROFESSOR**

**DR. ZAMIR AHMED QAMBRANI**
**ASSISTANT PROFESSOR**

**DR. SHAHJAHAN FAZLANI**
**ASSISTANT PROFESSOR**

**DR. AINNY RAZZAQ**
**ASSISTANT PROFESSOR**

**DR. KAUSAR KERIO**
**ASSISTANT PROFESSOR**

**DR. TAUSEEF AHMED**
**SENIOR REGISTRAR**

**DR. SHAHZAD AHMED**
**SENIOR REGISTRAR**

**DR FOZIA SHAIKH**
**CLINICAL INSTRUCTOR**

**DR.AYESHA AHMED**
**CLINICAL INSTRUCTOR**

## 4.Curriculum of MD Paediatrics

**A curriculum should be documented, objective, evolving and sustainable (DOES). It is intended to give a holistic view of the requirements of the discipline in general. The MD training program focuses on a few key factors of viable training.**

**These are: Knowledge (cognition), Skills and Attitude.**

**Following is a global and extensive, yet not the total, list of learning outcomes recommended by the LUMHS.**

### 4.1AIMS/ GOALS

1. Knowledge / Foundation

- **To provide postgraduate students with a strong knowledge which can be easily and appropriately applied on patients management in the hospital as well as in the community**

2. **Skill / Clinical Tools**

- **To educate the doctors to take history to formulate provisional or differential diagnosis.**
- **To provide opportunities for the acquisition of competence in managing acute pediatrics emergencies and proper management of referred patients.**
- **To develop competence for in the inpatient and out patient management of chronic illness.**
- **To teach the problem solving and laboratory data analyzing capabilities.**
- **To facilitate in teaching in undergraduates and postgraduate.**

**Attitude:**

- **To encourage in development of collaboration with community in order to improve public health / community pediatric.**
- **To develop communication and counseling skills for the patient management.**

- **To reinforce self learning and commitment to continued updating in all aspects of pediatrics.**

## 4.2 Objectives

### 1. Initially assess the children with Pediatrics problems:

a. **Obtains pertinent history.**
b. **Perform physical examination correctly.**
c. **Formulates a working diagnosis.**
d. **Decides whether the patient requires :**
   - **Ambulatory care or hospitalization.**
   - **Referral to other health professionals.**

### 2. Manage patients requiring treatment by a Paediatrician.

a. **Plans an enquiry strategy i.e. order appropriate investigations and interprets their results to decide and implements suitable treatment.**
b. **Maintains follow up of patients at required intervals and maintains records of patients.**
c. **Establishes positive relationship with all patients in order to ease illness and suffering.**
d. **Demonstrate sensitivity in performing internal examination.**

### 3. Undertake research and publish findings.

a. **Should be able to write synopsis within 6 months of training.**
b. **Conduct and supervise research projects in the department.**
c. **Should be able to write Dissertation / thesis writing.**

### 4. Acquire new information, assess its utility and make appropriate applications.

a. **Facilitate the transfer of information important to the management and prevention of disease.**
b. **Contributes in the evidence based learning and problem based learning.**
c. **Participates and presentation of papers in conferences and sypomposia.**

**5. Recognize the role of team work and function as an effective member/leader of the team.**

**a. Shows managerial capabilities by active participation in the ward administration.**

**b. Arranges small group discussions.**

**c. Train Para professionals and other junior members of the team.**

**6. Advice the community on matters related to promoting health and preventing diseases.**

a. **Participates in workshops and health education programs in the community and understand the social and governmental aspects of health care provision.**

**b. Offer professional services while keeping the cost effectiveness of individual forms of care and apply an understanding of hospital and community-based recourse available for patients and care givers in rural areas.**

**7. To reinforce self learning and commitment to continued updating in all aspects of pediatrics.**

a. **Demonstrate flexibility and willingness to adjust appropriately to changing circumstances and foster the habit and principle of self-education and reflection in order to constantly update and refresh knowledge and skills and as a commitment to continuing education.**

**b. Handle complaints including self-criticism by colleagues or patients and understand the importance of obtaining and valuing a second opinion**

## 4.3 ELIGIBILITY REQUIREMENTS FOR ENTERING THE TRAINING PORGRAMME

- **MBBS or equivalent qualification registered with PMDC**
- **One-year house job in an institution recognized by the LUMHS or PMDC**

**Format of Examination**

### 4.3.1 MD Part I

### For paper I Basic medical Sciences

- **Consisting of Anatomy, Physiology, Biochemistry and Pathology.**

**Paper II clinical in Medicine and Allied disciplines**

**FORMAT: MCQ (one Best Type)**

**Both paper must be cleared before entering the MD course.**

### 4.3.2 ENROLMENT

**On selection for the course of MD, the PG students are required to get themselves enrolled to the Liaquat University of Medical and Health Sciences?**

### 4.3.3 REGISTRATION

**On commencement of training all trainees are required to register themselves compulsorily with the PG section advanced studies and research board of the LUMHS.**

## 4.4 curriculum structure

**The component of any degree course including M.D pediatrics to provide Knowledge (cognition), Skills and Attitude to candidates.**

**Following is a global and extensive, yet not the total, list of learning outcomes recommended by the LUMHS.**

## Learning outcomes relating to:

### 4.4.1COGNITION

**The candidate will be able to:**

- **Relate how body functions get altered in diseased states.**
- **Request and justify investigation and plan management for medical disorders.**
- **Assess new medical knowledge and apply it to their setting.**
- **Apply quality assurance procedures in their daily works.**

### 4.4.2 SKILLS

#### 4.4.2.1Written communication skills:

**The candidate will be able to:**

- **Correctly write updated medical record, which are clear, concise and accurate.**
- **Write clear management plan, discharge summaries for out patients after referral for a general practitioner.**
- **Demonstrate competence in academic writing.**

### 4.4.2.2 Verbal communication skill:

**The candidate will be able to:**

- **Establish professional relationships with patients and their relatives or caregivers in order to obtain a history, conduct a physical examination and provide appropriate management.**
- **Demonstrate usage of appropriate language in seminars, bedside session's outpatients and other work situations.**

- **Demonstrate the ability to communicate clearly, considerately and sensitively with patients, relatives, other health professionals and the public.**
- **Demonstrate competence in presentation skills.**

### 4.4.2.3 Examination Skills:

**The candidate will be able to:**

a. **Perform an accurate physical and mental state examination in complex medical problems often involving multiple systems.**
b. **Interpret physical signs after physical examination so as to formulate further management strategy.**

### 4.4.2.4 Patient management skills:

**The candidate will be able to:**

a. **Interpret and integrate the history and examination findings and arrive at an appropriate differential diagnosis and final diagnosis.**
b. **Demonstrate competence in problem identification, analysis and management of the problem at hand by the use of appropriate resources, interpretation of lab results.**
c. **Prioritize different problems within a time frame.**

### 4.4.2.5 SKILLS IN RESEARCH:

**The candidate will be able to:**

a. **Use evidence based medicine and evidence based guidelines.**
b. **Conduct research individually by using appropriate research methodology and statistical methods.**
c. **Correctly guide others in conducting research by advising about study designs, research methodology and statistical methods that are applicable.**
d. **Interpret and use results of various research articles.**

## 4.5 ATTITUDES

### 4.5.1 Towards Patients

**The candidate will be able to:**

- **Establish a positive relationship with all patients in order to ease illness and suffering.**
- **Facilitate the transfer of information important to the management and prevention of disease.**
- **Demonstrate awareness of bio-psycho-social factors in the assessment and management of a patient.**

- **Demonstrate sensitivity in performing internal examination. It is important to explain to the patient why an intimate examination is necessary and what the examination will involve. The patient's permission must be obtained and, where possible, the patient should be invited to bring a relative or friend. The patient should have privacy to dress and undress. The discussion should be kept relevant and avoid unnecessary personal comments. Questions and feedback should be encouraged.**
- **Consistently show consideration of the interests of the patient and the community as paramount with these interests never subservient to one's own personal or professional interest.**

### 4.5.2 Towards Self Development:

**The candidate will be able to:**

- **Demonstrate, consistently respect for every human being irrespective of authentic background, culture, socioeconomic status and religion.**
- **Deal with patients in a non-discriminatory and prejudice-free manner.**
- **Deal with patients with honesty and compassion.**
- **Demonstrate flexibility and willingness to adjust appropriately to changing circumstances.**
- **Foster the habit and principle of self-education and reflection in order to constantly update and refresh knowledge and skills and as a commitment to continuing education.**
- **Recognize stress in self and others.**
- **Deal with stress and support medical colleagues and allied health workers.**
- **Handle complaints including self-criticism by colleagues or patients.**
- **Understand the importance of obtaining and valuing a second opinion.**

### 4.5.3Towards Society:

**The candidate will be able to:**

- **Understand the social and governmental aspects of health care provision.**
- **Offer professional services while keeping the cost effectiveness of individual forms of care.**
- **Apply an understanding of hospital and community-based resoursec available for patients and care givers in rural areas.**
- **Understand the use of 'telemedicine' in practicing health.**

## 4.6 TRAINING PROGRAM:

### 4.6.1 DURATION with credit hours: MD training program in Paediatrics is of four years duration.

### 4.6.2 Components of MD training in Paediatrics:

a. **General Paediatrics ------ 24 months**
b. **Neonatology ---------- -6months**
c. **Rotations-------- 18 months**

**The training program in Paediatrics will constitute 6 rotations in the following:**

- ***Neonatal intensive care unit three months**
- ***Paediatrics I.C.U three months**
- ***Preventive, social and community work** three months**
- ***Nutrition stabilization unit three months**
- **OPD / Well Baby clinic /OTP three months**
- **Labour room /Postnatal ward three months**
- **Emergency/casualty three months**
- **Paediatric cardiology two months**
- **Paediatric nephrology two months**
- **Paediatrics oncology two months**
- **Paediatric Surgery two months**

***Stared four rotations are mandatory while the candidate has select any two from remaining seven as optional.**

### ** PREVENTIVE, SOCIAL AND COMMUNITY WORK INCLUDES:

- **Breast feeding promotion and lactation**
- **Immunization**
- **Diarrhea disease management**
- **ARI management**
- **Growth monitoring and evaluation**
- **Nutritional assessment and management**
- **Disability management and exposure to special educational institution**

### 4.6.3 LOGBOOK

**The logbooks will be sent to candidates by the LUMHS after their selection for training.**

#### 4.6.3.1 GUIDELINES FOR TRAINEES:

- **The logbook is intended for documenting all the activities performed by the trainee during the training period.**
- **Entries must commence from the start of the training program.**
- **Trainees are advised to make the required entries on the day of the event.**
- **Completed and duly certified logbook is one of the requirements for appearing in MD examination.**

#### 4.6.3.2 GUIDELINES FOR SUPERVISORS:

- **The logbook is a day to day record of the clinical and academic work done by the trainee.**
- **The purpose is to assess the overall training of the candidate and to determine deficiencies if any so that may be corrected.**

- **The supervisor or any other designated trainer (Consultant/Professor/Associate Professor/Assistant Professor.) who is capable of testing the competence of the trainer in the specified area should ascertain that, the entries in the logbook are complete in all aspects. They should then certify the accomplishment of desired competency by signing in the appropriate column soon after the activity is conducted.**
- **The head of the unit shall authenticate the entries by signing the certificate. It is suggested that the heads of the unit check the log books at least once a month, so that they can spot any deficiencies or otherwise in the training (e.g the trainee has not rotated through a subspecialty which he/she should have).**

### 4.7 RESEARCH (THESIS).

**One of the training requirements is thesis writing on a topic relevant to the paediatric.**

**The topic must be selected and synopsis should be submitted and approved by the advanced studies and research board of the LUMHS within the first year of training. The thesis must be submitted to the controller of examinations, LUMHS (at any time from six months before the examination in which the candidate intends to appear. Four sets of thesis in unbound form (spiral binding) should be submitted along with bank draft of prescribed or receipt of cash payment of this amount from the accounts department of the LUMHS as thesis fees. If the thesis is found to be satisfactory the controller of Examinations. LUMHS, will issue a certificate to this effect. This certificate will form a part of documents to be submitted with the application form for MD examination. It must be emphasized that thesis is a part of training and not that of examination.**

### 4.8 Workshops

## MANDATORY WORKSHOPS

1. **Computer and Internet Orientation**
2. **Research Methodology & Dissertation Writing**
3. **Communication Skills.**
4. **IMNCI training program .**
5. **Management of Malnutrition ( CMAM/SAM)**
6. **ENCC**
7. **BLS/ALS**

## 4.9. MODES TO ACHIEVE OBJECTIVCES.

**The program training modes will include:**

**Theoretical sessions**

**Practical sessions**

**Clinical sessions**

**Research training sessions**

**Self learning and assignments**

**Venue of training will be at indoor facility, outdoor facility and community.**

**The objectives of the training may be achieved through:**

**Ward duties**

**Emergency duties**

**OPD duties**

**Morbidity / mortality review meetings**

**Case presentation**

**Presentation of scheduled topic**

**Clinico pathological conferences**

**Journal club**

**Seminars, conferences and lectures**

**Research projects**

### a. Monthly Training Program

| | |
|---|---|
| **Lecture / Tutorials (PBL)** | **1 hour X 4** |
| **Case Discussion** | **1hour X 4** |
| **X-Ray C T** | **1 hour X 4** |
| **CPC** | **1 hour X 4** |
| **Mortality meeting** | **1 hour** |
| **Ward rounds** | **2 hours X 28** |

**b. Lecture arranged by invited speakers from others specialties.**

**Radiology.**

**Child psychiatry.**

**Dermatology.**

**Cardiology.**

**Heamatology/ pathology.**

# 5. ASSESSMENT:

**Assessment includes :**

**Formative assessment.: that was evaluated during training course by:**

- **competency level assessment.**
- **record of their daily activity in the logbook.**
- **Mini CEX**
- **DOPS**

**Summative assessment :**

**Midterm Evaluation after completion of 2 years, compulsary to qualify before appearing in final examination. that will at end of training a in the form final examination**
**Final Examination.**

## **4.10** COMPETENCY LEVEL ASSESSMENT

**The clinical skills, which a specialist must have, are varied and complex. The level of competence to be achieved each year is specified according to the key, as follows**

### a. KEY TO CONMETENCY LEVELS OIN CLINICAL SKILLS:

| | |
|---|---|
| **Observer status** | **=1** |
| **Assistant status** | **=2** |
| **Performed under supervision** | **=3** |
| **Performed independently** | **=4** |

### b. **COMPETENCY LEVELS**

| **COMPETENCIES** | **1 Year** | **2 Year** | **3 Year** | **4 Year** |
|---|---|---|---|---|
| A: Patient Management | | | | |
| **History taking** | **2** | **3** | **4** | **4** |
| **Physical examination.** | **2** | **3** | **4** | **4** |
| **Ordering & interpreting investigation.** | **2** | **3** | **4** | **4** |

| | | | | |
|---|---|---|---|---|
| **Deciding & implementing treatment.** | **1** | **2** | **3** | **4** |
| **Maintaining follow-up records.** | **2** | **3** | **4** | **4** |
| **Teaching/Training/Supervision of research.** | **-** | **-** | **-** | **4** |
| **Neonatology:** | | | | |
| **Pre-maturity/low birth weight.** | **2** | **3** | **4** | **4** |
| **IUGR.** | **2** | **3** | **4** | **4** |
| **Jaundice.** | **2** | **3** | **4** | **4** |
| **Sepsis.** | **2** | **3** | **4** | **4** |
| **Birth trauma/asphyxia.** | **2** | **3** | **4** | **4** |
| **Congenital malformation.** | **1** | **2** | **3** | **4** |
| **Cyanosis.** | | **-** | **4** | **4** |
| **Respiratory distress.** | **2** | **3** | **4** | **4** |
| **Seizures (including tetanus).** | **2/3** | **4** | **4** | **4** |
| **Bleeding disorders.** | | **3** | **4** | **4** |
| **Management of emergencies:** | | | | |
| **Shock.** | **½** | **3** | **4** | **4** |
| **Hyperpyrexia.** | **3** | **4** | **4** | **4** |
| **Convulsion.** | **2** | **3** | **4** | **4** |
| **Poisoning.** | **1** | **2** | **3** | **4** |
| **Dehydration.** | **3** | **4** | **4** | **4** |
| **Coma.** | **2** | **3** | **4** | **4** |
| **Cardiopulmonary arrest & resuscitation.** | **2** | **3** | **4** | **4** |
| **Status epilepticus/seizures.** | **2** | **3** | **4** | **4** |
| **Status asthmaticus.** | **2** | **3** | **4** | **4** |
| **Renal failure.** | **2** | **3** | **3** | **4** |
| **Hepatic failure.** | **2** | **3** | **3** | **4** |
| **Cardiac failure.** | **2** | **3** | **3** | **4** |
| **Croup/epiglottitis.** | **2** | **3** | **4** | **4** |
| **Respiratory failure.** | **2** | **3** | **3** | **4** |
| **Hypertensive failure.** | **2** | **3** | **4** | **4** |
| | | | | |

| | | | | |
|---|---|---|---|---|
| **Common paediatric disease:** | | | | |
| **Malnutrition & vitamin deficiency disorders.** | **2** | **¾** | **4** | **4** |
| **Malaria.** | **2** | **¾** | **4** | **4** |
| **A.R.I.** | **2** | **¾** | **4** | **4** |
| **Diarrhoeal disease** | **2** | **¾** | **4** | **4** |
| **Bronchial asthma.** | **2** | **3** | **4** | **4** |
| **Rheumatic fever** | **2** | **3** | **4** | **4** |
| **Meningitis / encephalitis.** | **2** | **3** | **4** | **4** |
| **Enteric fever** | **2** | **¾** | **4** | **4** |
| **Measles & other exanthemata** | **2** | **¾** | **4** | **4** |
| **Worm infestation.** | **2** | **¾** | **4** | **4** |
| **Hepatitis & cirrhosis** | **2** | **3** | **4** | **4** |
| **Malabsorption syndromes.** | **2** | **3** | **4** | **4** |
| **Congenital heart disease.** | **2** | **3** | **4** | **4** |
| **Anaemias including haemolytic anaemias.** | **2** | **3** | **4** | **4** |
| **Leukaemias.** | **2** | **3** | **4** | **4** |
| **Hodgkin's disease.** | **2** | **3** | **4** | **4** |
| **UTI.** | **2** | **3** | **4** | **4** |
| **AGN & nephritic syndrome.** | **2** | **¾** | **4** | **4** |
| **ARF & CRF.** | **2** | **3** | **4** | **4** |
| **Cretinism & other hyperplasia.** | **2** | **¾** | **4** | **4** |
| **Congential adrenal hyperplasia** | **2** | **3** | **4** | **4** |
| **Diabetes mellitus & DKA** | **2** | **3** | **4** | **4** |
| **Seizure disorders.** | **2** | **3** | **4** | **4** |
| **Osteomyelitis & septic arthritis** | **2** | **3** | **4** | **4** |
| **Common skin problems.** | **2** | **¾** | **4** | **4** |
| **Congenital malformations** | **2** | **¾** | **4** | **4** |
| **Metabolic and storage disorders.** | **2** | **3** | **4** | **4** |
| **Genetic disorders.** | **2** | **3** | **4** | **4** |
| **B: Preventive procedures:** | | | | |
| **Nutrition, evaluation and** | **2** | **3** | **4** | **4** |

| | | | | |
|---|---|---|---|---|
| **management** | | | | |
| **Assessment, monitoring and promotion of growth & development.** | **2** | **3** | **4** | **4** |
| **Vaccination.** | **3** | **4** | **4** | **4** |
| **Special education programs for handicapped and deprives children.** | **½** | **2/3** | **4** | **4** |
| **School health service.** | **2** | **3** | **4** | **4** |
| **Genetic counseling** | **½** | **3** | **4** | **4** |
| **C: Procedures:** | | | | |
| **Venous cannulation** | **2/3** | **3/4** | **4** | **4** |
| **Venesection** | **2** | **3** | **4** | **4** |
| **Umbilical artery cannulation.** | **2** | **3** | **4** | **4** |
| **Peripheral artery annulations** | **2/3** | **3** | **4** | **4** |
| **Lumbar puncture.** | **½** | **2/3** | **3** | **4** |
| **Sub-dural tap** | **1** | **2** | **3** | **4** |
| **Pleural tap** | **½** | **2/3** | **4** | **4** |
| **Pericardial tap.** | **1** | **2** | **3** | **4** |
| **Peritoneal tap.** | **½** | **3** | **4** | **4** |
| **Suprapublic aspirate** | **2** | **3** | **4** | **4** |
| **Bone marrow aspirate** | **3 1** | **4 2** | **4 3** | **4** |
| **Cardio pulmonary resuscitation CPR.** | **1** | **2/3** | **4** | **4** |
| **Exchange transfusion** | **1** | **2** | **3** | **4** |
| **Chest drain insertion (pneumothorax/ empyema)** | **1** | **2** | **3** | **4** |
| **Emergency pneumothorax drainage (needle insertion )** | **2** | **¾** | **4** | **4** |

## 4.11.ASSESSMENT:

**Assessment includes :**

**Formative assessment.: that was evaluated during training course by:**

- **competency level assessment.**
- **record of their daily activity in the logbook.**
- **Mini CEX**

- **DOPS**

**Summative assessment :**

**Midterm Evaluation after completion of 2 years, compulsary to qualify before appearing in final examination. that will at end of training a in the form final examination**
**Final MD Examination.**

## 4.11.1 ELEGIBILITY REQUIREMENTS FOR EXAMINATION OF MD IN PAEDIATIRC

- **Four years specified training in paediatric according to the schedule given above.**
- **Certificate from the supervisor testifying training in the required areas for specified periods.**
- **Completed and duly attested logbook.**
- **Certificate of passing mid term examination**
- **Certificate of approval of thesis.**

**Certificate of attendance of mandatory workshops.**
**Internal evaluation**

### 4.11.2 EXAMINATION SCHEDULE :

### 4.11.3 MID TERM EXAMINATION (Internal Evaluation): will be conducted after 24 months of training, and thrice in year

**Formate of MID TERM EXAMINATION**

**MCQs (100 questions) and TOACS .**

### Final MD examination:

**The MD theory examination will be held twice a year.**

- **Examinations will be conducted at LUMHS JAMSHORO.**
- **English shall be the medium of examination for the theory/practical Clinical and viva examinations.**
- **The university change in the dates and format of the examination.**
- **A competent authority appointed by the LUMHS has the power to Debar any candidate from any examination if it is satisfied that such a candidate is not a fit person to take the university examination, because of using unfair means in the examination, misconduct or other disciplinary reason.**

- **Each successful candidate in the MD examination shall be entitled to the award of master degree by university.**
- **Applications along with the prescribed examination fees and required documents must be submitted by the last date notified for this purpose before each examination.**
- **Details of examination fee shall be notified before each examination.**

### 4.11.4 **FORMAT OF EXAMINATIONS**.

**The MD Paediatric Examination comprises:**

### 4.11.4.1 THEORY EXAMINATION.

**This is a written examination consisting of three papers.**

**Paper-I** **100 MCQs**

**Time :** **3hours**

**Paper-II** **100 MCQs**

**Time :** **3 hours**

### 4.11.4.2 **PART II CLINICAL EXAMINATION**.

**The clinical section comprises two components:**

- **The clinical Examination consisting of the long case and short cases .**
- **OSCE**

**Format of TOACS examination**

**TOACS will comprise of 10 interactive stations of 5 minutes each with a change time of one minute for the candidate to move from one station to the other. The stations would have an examiner, a patient or both. Structured clinical tasks will be set at each station. The examiners using a global rating scale? will assess the performance of each candidate.**

**On the interactive stations the candidate will have to perform a procedure, for example, taking history, performing clinical examination, counseling, assembling an instrument etc. one examiner will be present at each interactive station and will either rate the performance of the candidate of ask questions testing reasoning and problem solving skills.**

### 4.11.4.3 Format of long case examination.

**Each candidate will be allotted one long case and allowed 40 minutes for history taking and clinical examination. Candidates should take a careful history from the patient (or relative) and after a thorough physical examination to identity the problems which the patient presents with. During that period a pair of examiner will observe the candidate. In this section the candidates will be assessed on the following areas.**

- **Introduces one self.**
- **Takes informed consent**
- **Listens patiently and is polite with the patient.**
- **Is able to extract relevant information.**
- **Uses correct clinical methods systematically (including appropriate exposure and re-draping).**
- **Presents skillfully**
- **Gives correct findings**
- **Gives logical interpretations of findings and discusses differential diagnosis.**
- **Enumerates and justifies relevant investigations.**
- **Outlines and justifies treatment plan , including rehabilitation.**
- **Discusses prevention and prognosis.**
- **Has knowledge of recent advance relevant to the case.**

### 4.11.4.4 Format of short case examination.

**Candidates will be examined in at least four short casers for a total of 40 minutes jointly by a pair of examiners. Candidates will be given a specific task to perform on patients, one case at a time. During that part of the examination, the candidate will be assessed in:**

- **Takes informed consent.**
- **Uses current clinical methods including appropriate exposure and re-draping.**
- **Examines systematically**
- **Discussion.**
- **Gives correct findings.**
- **Gives logical interpretations of findings.**
- **Justifies diagnosis/ differential diagnosis.**

**Note: As the time for this section is short, the answers given by the candidates should be precise, and relevant to the patient under discussion.**

**NOTE:**

**Total marks of MD part II are 300.**

**Long case 100 marks.**

**Short case 100 marks**

**OSCE 100 marks**

**To be successful in the examination the candidates must secure minimum 60% marks in all these components.**