

CENTRAL COUNCIL OF INDIAN MEDICINE

NISABE TALEEM OF AMRAZ-E-ATFAL

(PEDIATRICS) ماہرِ امراضِ اطفال

**SYLLABUS OF
DOCTOR OF MEDICINE
(MD-UNANI)
MAHIR-E-AMRAZ-E-ATFAL (PEADIATRCIS)**

3 YEARS DEGREE COURSE

**CENTRAL COUNCIL OF INDIAN MEDICINE
61-65, INSTITUTIONAL AREA,
JANAKPURI
NEW DELHI - 110058**

Syllabus of M. D. AMRAZ-E-ATFAL (PEADIATRIS)

OBJECTIVES:

The broad goals of teaching of P.G. students in pediatrics are to acquire specified knowledge and specialized skills for optimally dealing with pediatric Growth and development and tackle the various pediatrics diseases, deformities and problem.

M.D. First year

Paper I –

Part A- Research Methodology اصول تحقیق

Part B- Bio or Medical statistics حیاتی و طبی شماریات

Paper II –

Part A- Applied Basic sciences in Pediatrics including Pediatric Surgery, Unani therapeutics in Pediatrics

امراض اطفال میں اطلاقی بنیادی سائنس مع جراحی و یونانی معالجات

Part B- Concern subject (Amraz-e-Atfal) Nutrition, growth and development

(امراض اطفال-تغذیه و نشو نما)

M.D. Final year

III year

Paper I – History taking and Examination in Pediatrics, Immunology and Infectious diseases.

امراض اطفال میں روداد و امتحانات مناعت و متعدی امراض

Paper II- Neonatology, embryology and Genetics

امراض نومولود۔ جینیات و جنینیات

Paper III – Pediatric Surgery, Pediatric emergencies and Systemic pediatrics Ist

اطفالی جراحی و طواری، امراض اطفال نظامی اول۔

Paper IV - Systemic pediatrics IInd

امراض اطفال نظامی دوم۔

**First Year
Paper-I**

**“RESEARCH METHODOLOGY AND BIOSTATISTICS”
(Usool-e-Tahqeeqat-e-Ilaj-e-Tadbeeri wa Hayati Shumariyat)**

Common paper for all PG courses

Paper II- Part -A

Part A- Applied Basic sciences in Pediatrics including Pediatric Surgery, Unani therapeutics in Pediatrics

امراض اطفال ميں اطلاقى بنيادى سائنس مع جراحت و يونانى معالجات

- 1) Applied Anatomy – Applied Embryology, Development of Major Organ Systems
- 2) Applied Physiology – Applied Physiology with regard to physiology of major organ systems, Physiological differences in child compare to adult.
- 3) Consideration of physiology and pathology of akhlat, Mizaj, Afaal and Quwa in Children
- 4) Darjaat-e-Umar (Classification of Age) according to various classical literature.
- 5) Applied Biochemistry – Biochemical basis of disease in Children, Nutrition and Metabolic
- 6) Applied Pathology – Pathophysiology (Marzi Munafiyati ki khososiyat) of diseases in Children, Pathogenesis.
- 7) Applied Microbiology – Clinical Microbiology applied to investigation for disease in Childhood, serology staining and culture.
- 8) Applied Pharmacology – Andarooni and Bairooni Adviaat (External and Intergal drugs), Amraz e Atfal me Advia ka istamaal aur unki Meqdar-e-khuraak. Drug interaction and common drugs used in modern medicine with special reference to antibiotics.
- 9) Applied Tahafuzzi wa Samaji Tib(Social and Preventive Medicine) – Health care delivery system structure and function, Health statistics, National Programmes
- 10) Applied Surgery – Recognition and Referral of surgical conditions in Pediatrics.
- 11) Applied Radiology – X-Ray, Ultra sono-graphy, ECG and Echo Cardio Gram, EEG, CT Scan, MRI
- 12) Legal Ethical Medicine: Rights and Protection of Children, Consumer Protection Act, Basic Principles of Ethics
- 13) Role of Unani in child care
- 14) Consideration of Umoor-e-Tabiya in pediatrics
- 15) Fundamentals and Unani treatment and specific procedures in Unani
- 16) Role of Unani medicine in Childs psychology.
- 17) Unani Immuno modulators and its importance in pediatrics.

Paper – II- Part –B

Part –B Concern subject (Amraz-e-Atfal) Nutrition, growth and development

(امراض اطفال-تغذيه و نشو نما)

I) Growth and Development

- 1) Growth and Development
- 2) Assessment of Growth and development
- 3) Developmental Assessment according to Unani concept
- 4) Standards / Nomo grams (including Indian)
- 5) Growth disorders
- 6) Approach to Short stature
- 7) Approach to Obesity
- 8) Preventive and Social Paediatrics
- 9) Approach to under nutrition

II) Psychological Disorders

III) Children with special Need and care

- a) Role of Unani Dieto therapy in Paediatrics
- b) Specific diet for specific diseases
- c) Diet and Nutritional Evaluation and values of Indian food

IV) Infant and Child Feeding

1. Breast Milk Feeding, and supplementary feeding and Management,
2. Weaning foods, Feeding 1st to 2nd year

V) Nutritional disorders Including Obesity

- 1) Protein energy Malnutrition
- 2) Hypo and hyper vitaminosis
- 3) Micro nutrient Malnutrition
- 4) Nutrition in Special situations-
 - a) LBW and Premature babies, Inborn errors of Metabolism,
 - b) Chronic Illness, Surgery,
 - c) Critically ill child
- 5) Dehydration and fluid management
- 6) Electrolyte disorders
- 7) Acid Base Disorders
- 8) Special Situations – Pyloric stenosis, CNS disorders, Burns, Pre-operative, endocrinal disorders, Renal Failure and obesity

M.D. Final year

(III year)

Paper I - History taking and Examination in Pediatrics, Immunology and Infectious diseases.

امراض اطفال ميں روداد و امتحانات. مناعت و متعدی امراض

I) Immunization

- a) Principles and updated Schedules
- b) Controversies
- c) Standard and Optional Vaccines

II) Infectious & communicable Diseases

a) Pediatric Viral Infections

- 1) Chickenpox (Varicella)
- 2) Measles (Rubeola)
- 3) German Measles (Rubella, Three-Day Measles)
- 4) Mumps (Epidemic Parotitis)
- 5) Poliomyelitis
- 6) Guillain-Barre Syndrome (GBS)
- 7) Acute Flaccid Paralysis (AFP) Surveillance
- 8) Infectious Mononucleosis
- 9) Dengue Fever
- 10) Chikungunya Fever
- 11) Japanese Encephalitis
- 12) Hydrophobia (Rabies)
- 13) Viral Hepatitis
- 14) Pediatric HIV / AIDS
- 15) Respiratory Syncytial Virus (RSV) Infection
- 16) Bird (Avian) Flu
- 17) Severe Acute Respiratory Syndrome (SARS)

b) Pediatric Bacterial Infections

- 1) Hib Disease
- 2) Pertussis (Whooping Cough)
- 3) Diphtheria
- 4) Epidemic Typhus
- 5) Typhoid Fever (Enteric Fever)
- 6) Brucellosis
- 7) Tetanus
- 8) Leprosy (Hansen Disease)
- 9) Syphilis
- 10) Leptospirosis
- 11) Meningococcal Infections
- 12) Tuberculosis

- 13) Anaerobic Infection
- 14) Helicobacter Pylori (H. pylori) Infection
- 15) Opportunistic Infections
- 16) Nosocomial Infections
- 17) Noma

c) Pediatric Parasitic infestation

- 1) Malaria
- 2) Tropical Splenomegaly
- 3) Kala-azar (Black Sickness)
- 4) Filariasis
- 5) Tropical Eosinophilia
- 6) Giardiasis
- 7) Amebiasis
- 8) Acanthamoeba
- 9) Cryptosporidiosis
- 10) Ascariasis
- 11) Oxyuriasis
- 12) Ancylostomiasis
- 13) Strongyloidiasis
- 14) Trichuriasis
- 15) Tapeworms
- 16) Neurocysticercosis
- 17) Hydatid Disease

Paper II- Neonatology, embryology and Genetics **امراض نومولود۔ جینیات و جنینیات**

- 1) Human Genetics
 - a) Molecular Basis of Genetic Disorders
 - b) Molecular Diagnosis
 - c) Patterns of inheritance
 - d) Chromosomal clinical abnormalities
 - e) Genetic Counseling
 - f) Dysmorphism
 - g) Gene therapy

- 2) Fetus and Newborn
 - a) Newborn-history, and examination,
 - b) Routine delivery care, Nursery care, Infant-mother bonding Kangaroo mother care (KMC)
- 3) Maternal medications and toxin exposure on Fetus and medicine contraindication in Pediatrics.

Teratogens and radiation.

 - a) High risk infant
 - b) Multiple pregnancies
 - c) Prematurity and Intrauterine Growth Retardation, Low Birth Weight infants, Post- term infants

- 4) Hematological disorder
- 5) Metabolic disorders
- 6) Endocrine disorders

- 7) Nutrition and feeding the newborn term/preterm LBW, IUGR
- 8) Neonatal transportation
- 9) Surgical problems
 - a) Tracheo-esophageal Fistula with esophageal atresia
 - b) Anorectal malformations
 - c) diaphragmatic Hernia
 - d) Hirschsprung's disease
 - e) Urogenital anomalies
 - f) NEC
 - g) Congenital Lobar emphysema
 - h) Volvulus
 - i) Phimosis and paraphimosis
- 10) Thermoregulation
- 11) Neonatal follow up

Paper III – Pediatric Surgery, Pediatric emergencies and Systemic pediatrics Ist

اطفالی جراحی و طواری، امراض اطفال نظامی اول۔

I) Pediatric Pulmonology

- a) Clinical Evaluation of a Respiratory system
- b) Special Diagnostic Procedures
- c) Upper Respiratory Tract Infection
- d) Foreign Body in Lower Respiratory Tract
- e) Acute Respiratory Distress Syndrome
- f) Acute Bronchiolitis
- g) Acute Bronchiolitis
- h) Pneumonias
- i) Bronchiectasis
- j) Dry Pleurisy
- k) Pleural Effusion
- l) Empyema Thoracic
- m) Lung Abscess
- n) Bronchial Asthma
- o) Cystic Fibrosis

II) Pediatric Cardiology

- a) Evaluation of a Cardiovascular Case
- b) Fetal Circulation
- c) Congenital Heart Disease
- d) Acquired Heart Disease

III) Pediatric Neurology

- a) Bell's Palsy
- b) Guillain-Barre Syndrome

- c) Mental Retardation
- d) Cerebral Palsy
- e) Autism
- f) Tuberculoma
- g) Encephelitis
- h) Hydrocephalus
- i) Intracranial Space Occupying Lesions
- j) Brain Abscess
- k) Subdural Hematoma
- l) Intracranial Tumors
- m) Convulsive Disorders
- n) Febrile Seizures
- o) Reye Syndrome

IV) Pediatrics Ophthalmology

- a) Diseases of Eyelid
- b) Diseases of lacrimal system
- c) Diseases of conjunctiva
- d) Refractory errors

V) Pediatrics Ear, Nose, Throat (ENT) and Dental Problem

- a) The Ear Disorders
- b) The Nose Disorders
- c) The Throat Disorders
- d) Normal dentation
- e) Abnormal dentation
- f) Early and delayed dentition
- g) Dental Caries
- h) Cleft, lip and palate

Paper IV - Systemic pediatrics IInd

امراض اطفال نظامی دوم.

I) Pediatric Gastroenterology

- a) Basics Of Gastrointestinal Tract
- b) Special Investigative Work-up
- c) Diarrhoea and dysentery
- d) Acute Bacillary Dysentery
- e) Pseudomembranous Colitis
- f) Oral Rehydration Therapy(ORT)
- g) Celiac Disease
- h) Cystic Fibrosis
- i) Endemic Tropical Sprue
- j) Protein-Losing Enteropathy
- k) Cow Milk Allergy
- l) Inflammatory Bowel Disease
- m) Constipation
- n) Recurrent Aphthous Stomatitis

- o) Geographic Tongue

II) Pediatric Hepatology

- a) Hepatitis
- b) Chronic Liver Disease
- c) Australia Antigen
- d) Portal Hypertension
- e) Neonatal Cholestatic Syndrome
- f) Cholecystitis
- g) Drug-Induced Liver Injury
- h) Hepatomegaly
- i) Liver Abscess
- j) Wilson Disease
- k) Approach To The Child With Ascites
- l) Orthotopic Liver Transplantation

III) Pediatric Nephrology

- a) Proteinuria
- b) Hematuria
- c) Urinary Tract Infection (UTI)
- d) Acute Glomerulonephritis
- e) Renal Tubular Disease
- f) Acute Renal Failure (ARF)
- g) Chronic Renal Failure (CRF)
- h) Nephrotic Syndrome

PRACTICALS:-

OSPE (Objective, structural, practical, examination)

PI: Perform Independently

PA: Perform with assistance

O: Observe

Number at end of item indicates minimum number of supervised and documented skills.

Psychomotor skills

Procedural

Procedures: List of PI Skills

- Clinical History and Physical examination
- Human Lactation management (counseling and practical skills) 20
- Neonatal resuscitation 30
- Pediatric resuscitation 30
- Teaching encounters 05
- Intravenous injections 50
- Intravenous cannulation 50
- Lumbar puncture 10
- Test dose 10
- Infusions 10
- Pleural tap 10
- Paracentesis – diagnostic and therapeutic 10
- Mantoux test 10
- DPT, OPV, Measles vaccination 10
- Sampling for Fluid cultures 10

Respiratory management (All PI)

- Nebulization 50
- Inhaler therapy 50
- Oxygen delivery 10

Critically Ill child (All PI)

- Monitoring a sick child 50
- Pulse oximetry 50
- Infant feeding tube/ Ryle's tube, stomach wash 10
- Urinary catheterization 10
- Restraining a child for a procedure 10
- ORS and ORT 50
- Prognostication /Counseling about prognosis 10

Laboratory- Diagnostic (All PI)

- Urine Protein, sugar, microscopy 10
- Peripheral blood smear 10
- Malarial smear 10
- Ziehl Nielson smear – sputum, gastric aspirate 10

- Grams smear – CSF, pus 10
- Stool pH, reducing substances, microscopy 10
- KOH smear

List of Observations: -

- Genetic counseling 02
- Classification of diseases 02

Reference Books :

Rahbbar e mol;ijat	Khan,mohd.shamim
kitabul -al -hawi 1	Razi,abu bakar
kitabul -al -hawi 2	Razi,abu bakar
kitabul -al -hawi 3	Razi,abu bakar
kitabul-al -hawi 4	Razi,abu bakar
kitabul-al -hawi 5	Razi,abu bakar
kitabul-al -hawi 6	Razi,abu bakar
kitabul-al -hawi 7	Razi,abu bakar
kitabul-al -hawi 8	Razi,abu bakar
kitabul-al -hawi 9	Razi,abu bakar
kitabul-al -hawi 10	Razi,abu bakar
kitabul-al -hawi 11	Razi,abu bakar
kitabul-ai-hawi 12	Razi,abu bakar
kitabul-al-hawi 13	Razi,abu bakar
kitab al tasir	Abu marwan
kitab al kuliyyat	ibn rashid
kitab al tasir	Abu marwan
kitab al mansoori	Abubakar
Al moalijat bakratiya	abu alhasan ahmad
Kitabul Mukhtarat filtaf	Ibne Sehel Bagdadi
Al-Qanoon Fil-Tibb	Ibne Sena
Kulliyat-e-Nafisi	Ibne Nafis
Amraz-e-Atfal	Shafaqat Azmi
T.B. & Paediatrics	Nelson's
Neotology	Mehrban Singh
Text Book of Paediatrics	S.T. Achar
The Short Textbook of Pedatrics	Suraj Gupte
Essential Pedatrics	O.P. Ghai
Clinical Cases in Pedatrics	Vikram Datta & Hamaesh Pemde