

P.G. Curriculum MD Pediatrics Index

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PG Curriculum MD Pediatrics

The infrastructure and faculty will be as per MCI guidelines.

1. Goals

The goal of Post graduation (MD) course in Pediatrics is to produce a competent pediatrician who:

- ❖ Recognizes the health needs of neonates, infants, children and adolescents and carries out professional obligations in keeping with principles of National Health Policy and professional ethics;
- ❖ Has acquired the competencies pertaining to pediatrics that are required to be practiced in the community and at all levels of health care system;
- ❖ Has acquired skills in effectively communicating with the child, family and the community;
- ❖ Is aware of the contemporary advances and developments in medical sciences as related to child health;
- ❖ Is oriented to principles of research methodology; and
- ❖ Has acquired skills in educating medical and paramedical professionals.

2. Objectives

At the end of the MD course in Pediatrics, the student should be able to :

- ❖ Recognize the key importance of child health in the context of the health priority of the country;
- ❖ Practice the specialty of Pediatrics in keeping with the principles of professional ethics;
- ❖ Identify social, economic, environmental, biological and emotional determinants of child and adolescent health, and institute diagnostic, therapeutic, rehabilitative, preventive and promotive measures to provide holistic care to children;
- ❖ Recognize the importance of growth, nutrition and development as the foundation of Pediatrics; and help each child realize her/his optimal potential in this regard;
- ❖ Take detailed history, perform complete physical examination including neuro-development and behavioral assessment and anthropometric measurements of the child and make clinical diagnosis;
- ❖ Perform relevant investigative and therapeutic procedures for the pediatric patient;
- ❖ Interpret important imaging and laboratory results;
- ❖ Diagnose illness in children based on the analysis of history, physical examination and investigative work up;
- ❖ Plan and deliver comprehensive treatment for illness in children using principles of rational drug therapy;

- ❖ Plan and advise measures for the prevention of childhood disease and disability.
- ❖ Plan rehabilitation of children suffering from chronic illness and handicap, and those with special needs;
- ❖ Manage childhood emergencies efficiently;
- ❖ Provide comprehensive care to normal, 'at risk' and sick neonates;
- ❖ Demonstrate skills in documentation of case details, and of morbidity and mortality data relevant to the assigned situation;
- ❖ Recognize the emotional and behavioral characteristics of children, and keep these fundamental attributes in focus while dealing with them;
- ❖ Demonstrate empathy and humane approach towards patients and their families and respect cultural needs.
- ❖ Demonstrate communication skills of a high order in explaining management and prognosis, providing counseling and giving health education messages to patients, families and communities;
- ❖ Develop skills as a self-directed learner, recognize continuing educational needs; use appropriate learning resources, and critically analyze relevant published literature in order to practice evidence-based pediatrics;
- ❖ Demonstrate competence in basic concepts of research methodology and epidemiology;
- ❖ Facilitate learning of medical/nursing students, practicing physicians, para-medical health workers and other providers as a teacher-trainer;
- ❖ Play the assigned role in the implementation of national health programs, effectively and responsibly;
- ❖ Organize and supervise the desired managerial and leadership skills;
- ❖ Function as a productive member of a team engaged in health care, research and education.

3. Syllabus

3.1 Theory

- ❖ Approach to important clinical problems
 - Growth and development.
Short stature, obesity, precocious and delayed puberty, developmental delay, impaired learning.
 - Neonatology.
Normal newborn, low birth weight newborn, sick newborn.
 - Nutrition.
Lactation management and complementary feeding, protein energy malnutrition (underweight, wasting, stunting) and micronutrient and vitamin deficiency, failure to thrive.
 - Cardiovascular.
Murmur, cyanosis, congestive heart failure, systemic hypertension, arrhythmia, shock.
 - GIT and liver.

Acute, persistent and chronic diarrhea, abdominal pain and distension, ascites, vomiting, constipation, gastrointestinal bleeding, jaundice, hepatosplenomegaly and chronic liver disease, hepatic failure and encephalopathy.

- Respiratory
Cough/chronic cough, noisy breathing, wheezy child, respiratory distress, hemoptysis.
- Infections.
Acute onset, pyrexia with and without localizing sign, recurrent infections, nosocomial infections.
- Renal
Hematuria/dysuria, bladder/bowel incontinence, voiding dys-functions, inguinoscrotal swelling, renal failure (acute and chronic).
- Hematooncology.
Lymphadenopathy, anemia, bleeding.
- Neurology.
Limping child, convulsions, abnormality of gait, intracranial space occupying lesion, paraplegia, quadriplegia, large head, small head, floppy infant, acute flaccid paralysis, cerebral palsy and other neuromotor disability, headache.
- Endocrine.
Thyroid swelling, ambiguous genitalia, obesity, short stature.
- Skin/Eye/ENT.
Skin rash, pigmentary lesions, pain/discharge from ear, hearing loss, epistaxis, refractory errors, blindness, cataract, eye discharge, redness, squint, proptosis.
- Miscellaneous.
Habit disorders, hyperactivity and attention deficit syndrome, arthralgia, arthritis, multiple congenital anomalies. speech disorders.

❖ Disorders

Definition, epidemiology, etiopathogenesis, presentation, complications, differential diagnosis, and treatment

- Growth and development.
Principles of growth and development, normal growth and development in childhood and adolescence, deviations in growth and development, sexual maturation and its disturbances.
- Neonatology.
Perinatal care, normal newborn, care in the labor room and resuscitation, low birth weight, prematurity, newborn feeding, respiratory distress, apnea, infections, jaundice, anemia and bleeding disorders, neurologic disorders, gastrointestinal disorders, renal disorders, malformations, thermoregulation and its disorders, understanding of perinatal medicine.
- Nutrition.
Maternal nutritional disorders: impact on fetal outcome, nutrition for the low birth weight, breast feeding, infant feeding including complementary feeding, protein energy malnutrition, vitamin and mineral deficiencies, trace elements of

nutritional importance, obesity, adolescent nutrition, nutritional management in diarrhea, nutritional management of systemic illnesses (celiac disease, hepatobiliary disorders, nephrotic syndrome), parenteral and enteral nutrition in neonates and children.

- Cardiovascular.
Congenital heart diseases (cyanotic and acyanotic), rheumatic fever and rheumatic heart disease, infective endocarditis, arrhythmia, diseases of myocardium (cardiomyopathy, myocarditis), diseases of pericardium, systemic hypertension, hyperlipidemia in children.
- Respiratory.
Congenital and acquired disorders of nose, infections of upper respiratory tract, tonsils and adenoids, obstructive sleep apnea, congenital anomalies of lower respiratory tract, acute inflammatory upper airway obstruction, foreign body in larynx, trachea and bronchi, subglottic stenosis (acute and chronic), trauma to larynx, neoplasm of larynx and trachea, bronchitis, bronchiolitis, aspiration pneumonia, GER, acute pneumonia, recurrent and interstitial pneumonia, suppurative lung disease, atelectasis, lung cysts, emphysema and hyperinflation bronchial asthma, pulmonary edema, bronchiectasis, pleural effusion, pulmonary leaks, mediastinal mass.
- Gastrointestinal and liver diseases.
Diseases of mouth, oral cavity and tongue, disorders of deglutition and esophagus, peptic ulcer disease, H. pylori infection, foreign body, congenital pyloric stenosis, intestinal obstruction, malabsorption syndrome, acute and chronic diarrhea, irritable bowel syndrome, ulcerative colitis, Hirschsprung's disease, anorectal malformations, liver disorders: hepatitis, hepatic failure, chronic liver disease, Wilson's disease, Budd-Chiari syndrome, metabolic diseases of liver, cirrhosis and portal hypertension.
- Nephrologic disorders.
Acute and chronic glomerulonephritis, nephrotic syndrome, hemolytic uremic syndrome, urinary tract infection, VUR and renal scarring, renal involvement in systemic diseases, renal tubular disorders, congenital and hereditary renal disorders, renal and bladder stones, posterior ure-thral valves, hydronephrosis, voiding dysfunction, enuresis, undescended testis, Wilm's tumor, fluid-electrolyte disturbances.
- Neurologic disorders.
Seizure and non seizure paroxysmal events, epilepsy and epileptic syndromes of childhood, meningitis (pyogenic and TBM), brain abscess, coma, acute encephalitis and febrile encephalopathies, Guillain-Barre syndrome, neurocysticercosis and other neuro-infestations, HIV encephalopathy, SSPE, cerebral palsy, neurometabolic disorders, mental retardation, learning disabilities, muscular dystrophies, acute flaccid paralysis and AFP surveillance, ataxia, movement disorders of childhood, CNS tumors, malformations, Neurocutaneous syndrome, Neurodegenerative disorders, head injury
- Hematology and oncology.

Deficiency anemia, hemolytic anemia, aplastic anemia, pancytopenia, disorders of hemostasis, thrombocytopenia, blood component therapy, transfusion related infections, bone marrow transplant/ stem cell transplant, acute and chronic leukemia, myelodysplastic syndrome, Hodgkin disease, non-Hodgkin's lymphoma, neuroblastoma, hypercoagulable states, transfusion related problems.

- Endocrinology.
Hypopituitarism/hyperpituitarism, Diabetes insipidus, pubertal disorders, hypo and hyperthyroidism, hypo- and hyperparathyroidism, adrenal insufficiency, Cushing's syndrome, adrenogenital syndromes, diabetes mellitus, hypoglycemia, short stature, failure to thrive, gonadal dysfunction and intersexuality, pubertal changes and gynecological disorders.
- Infections.
Bacterial, viral, fungal, parasitic, rickettsial, mycoplasma, Pneumocystis carinii infections, chlamydia, protozoal and parasitic, tuberculosis, HIV, nosocomial infections, control of epidemics and infection prevention.
- Emergency and critical care.
Emergency care of shock, cardiorespiratory arrest, respiratory failure, congestive cardiac failure, acute renal failure, status epilepticus, fluid and electrolyte disturbances and its therapy, acid-base disturbances, poisoning, accidents, scorpion and snake bites. Management of arrhythmia, ARDS, Hepatic encephalopathy, CRF, DKA, poisoning (including OPC) near drowning, status asthmaticus .
- Immunology and rheumatology.
Arthritis (acute and chronic), connective tissue disorders, disorders of immunoglobulins, T and B cell disorders, immunodeficiency syndromes,
- ENT.
Acute and chronic otitis media, conductive/sensorineural hearing loss, post-diphtheritic palatal palsy, acute/chronic tonsillitis/adenoids, allergic rhinitis/sinusitis, foreign body.
- Skin diseases
Exanthematous illnesses, vascular lesions, pigment disorders, vesicobullous disorders, infections: pyogenic, fungal and parasitic; Steven-Johnson syndrome, eczema, seborrheic dermatitis, drug rash, urticaria, alopecia, ichthyosis.
- Eye problems.
Refraction and accommodation, partial/total loss of vision, cataract, night blindness, chorio-retinitis, strabismus, conjunctival and corneal disorders, retinopathy of prematurity, retinoblastoma, optic atrophy, papilledema.
- Behavioral and psychological disorders
Rumination, pica, enuresis, encopresis, sleep disorders, habit disorders, breath holding spells, anxiety disorders, mood disorders, temper tantrums, attention deficit hyperactivity disorder, autism.
- Social pediatrics.

National health programs related to child health, child abuse and neglect, child labor, adoption, disability and rehabilitation, rights of the child, national policy of child health and population, juvenile delinquency.

- Genetics.
Chromosomal disorders, single gene disorders, multifactorial/polygenic disorders, genetic diagnosis, and prenatal diagnosis, gene therapy and genetic counselling.
- Orthopedics.
Major congenital orthopedic deformities, bone and joint infections: pyogenic, tubercular, and common bone tumors.
- Vaccine preventable diseases/all vaccines including newer vaccines.
- Miscellaneous
Inborn errors of metabolism, allergic disorders.
- Clinical

3.2 Practical

- History and examination.
History taking including psychosocial history, environmental immunization history, physical examination including fundus examination, newborn examination, including gestation assessment; thermal protection of young infants, nutritional anthropometry and its assessment, assessment of growth, use of growth chart, SMR rating, developmental evaluation, communication with children, parents, health functionaries and social support groups; and genetic counseling.
- Bedside procedures
 - ★ Monitoring skills: Temperature recording, capillary blood sampling, arterial blood sampling.
 - ★ Therapeutic skills: Hydrotherapy, nasogastric feeding, endotracheal intubation, cardiopulmonary resuscitation (pediatric and neonatal), administration of oxygen, venepuncture and establishment of vascular access, administration of fluids, blood, blood components, parenteral nutrition, intraosseous fluid administration, intrathecal administration of drugs, common dressings, abscess drainage and basic principles of rehabilitation.
 - ★ Investigative skills: Lumbar puncture, ventricular tap, bone marrow aspiration and biopsy, pleural, peritoneal, pericardial and subdural tap, biopsy of liver and kidney, collection of urine for culture, urethral catheterization, suprapubic aspiration.
 - ★ Bedside investigations.
Hemoglobin, TLC, ESR, peripheral smear staining and examination, urine: routine and microscopic examination, stool microscopy including hanging drop preparation, examination of CSF and other body fluids, Gram stain, ZN stain, shake test on gastric aspirate.
 - ★ Interpretation of

X-rays of chest, abdomen, bone and head; ECG; ABG findings; CT/MRI scan and other investigation relevant to Pediatrics.

★ Understanding of

common EEG patterns, audiograms, ultrasonographic abnormalities and isotope studies.

❖ **Basic Sciences**

Embryogenesis of different organ systems especially heart, genitourinary system, gastrointestinal tract, applied anatomy of different organs, functions of kidney, liver, lungs, heart and endocrinal glands. Physiology of micturition and defecation, placental physiology, fetal and neonatal circulation, regulation of temperature (especially newborn), blood pressure, acid base balance, fluid electrolyte balance, calcium metabolism, vitamins and their functions, hematopoiesis, hemostasis, bilirubin metabolism. Growth and development at different ages, puberty and its regulation, nutrition, normal requirements of various nutrients. Basic immunology, biostatistics, clinical epidemiology, ethical and medicolegal issues, teaching methodology and managerial skills, pharmacokinetics of commonly used drugs, microbial agents and their epidemiology.

❖ **Community and Social Pediatrics**

National health nutrition programs, nutrition screening of community, prevention of blindness, school health programs, prevention of sexually transmitted diseases, contraception, health legislation, national policy on children, adolescence, adoption, child labor, juvenile delinquency, government and non-government support services for children, investigation of adverse events following immunization in the community, general principles of prevention and control of infections including food borne, waterborne, soil borne and vector borne diseases, investigation of an outbreak in a community.

4. Teaching Program

4.1. General Principles

Acquisition of practical competencies being the keystone of postgraduate medical education, postgraduate training should be skill oriented.

Learning in postgraduate program is essentially self-directed and primarily emanating from clinical and academic work. The formal sessions are meant to supplement this core effort.

4.2. Teaching Sessions

❖ Clinical case discussions :

- PG bed side
- Teaching rounds
- Mock Examination

❖ Seminars/Journal club

❖ Statistical meetings : weekly/monthly, clinico pathological meet

- ❖ Mortality meetings
- ❖ Perinatal meetings
- ❖ Interdepartmental Meetings : Pediatric Surgery, Obstetrics, Skin, pathology, SPM, Pharmacology, Radiology
- ❖ Others – Guest lectures/vertical seminars/Central Stat meets.

4.3. Teaching Schedule:

In addition to bedside teaching rounds in the department, there should be daily hourly sessions of formal teaching. The suggested teaching schedule is as follows:

- | | |
|---|------------------|
| 1. Journal club/Seminar alternate week | Once a fortnight |
| 2. Seminar | Once a fortnight |
| 3. Bed side case discussion | Once a week |
| 4. Statistics and mortality meet (detailed discussion of all the deaths occurring in previous week) | Once a week |
| 5. Statistics (including OPD, ward, nursery and PICU) | Once a month |
| 6. Thesis meet/ Intradepartment meet to monitor progress by PG residents for administrative training. | Once a month |
| 7. Interdepartmental meet (cardiology, neurology, radiology, pharmacology, microbiology, statistics etc) | Once a month |
| 8. Perinatology meet with department of Obstetrics and Gynae including statistics discussing any neonatal death/topic | Once a month |
| 9. Mock exam (bed side case is allotted 1 hour prior to presentation) on the pattern of University examination. | Once a week |

Central session (CPC, guest lectures, integrated student seminars, grand round, sessions on basic sciences, biostatistics, research methodology, teaching methodology, health economics, medical ethics and legal issues).

Note:

- ❖ All sessions should be attended by the faculty members
- ❖ All teaching sessions should be assessed by the consultants at the end of session and marks are considered for internal assessment.

5. Postings

The postgraduate student should rotate through all the clinical units in the department.

Neonatology (including perinatology):	6-9 months
Intensive Care:	6-8 months
Emergency:	4-6 months
Pediatric ward (including outpatient dept):	9-12 months with rotation in both the units.

6. Thesis

- ❖ Every candidate should carry out work on an assigned research project under the guidance of a recognized Postgraduate Teacher; the project shall be written and submitted in the form of a Thesis.
- ❖ Every candidate should submit thesis plan to the University within nine months from the date of admission.
- ❖ Thesis should be submitted to the University six months before the commencement of theory examination i.e. for examination May/June session, 30th November of the preceding year of examination and for November/December session 31st May of the year of examination.
- ❖ The student should identify a relevant research question; (ii) conduct a critical review of literature; (iii) formulate a hypothesis; (iv) determine the most suitable study design; (v) state the objectives of the study; (vi) prepare a study protocol; (vii) undertake a study according to the protocol; (viii) analyze and interpret research data, and draw conclusions; (ix) write a research paper.

7. Assessment

All the PG residents will be assessed daily for their academic activities and also periodically.

7.1. General Principles

- ❖ The assessment is valid, objective, and reliable.
- ❖ It covers cognitive, psychomotor and affective domains.
- ❖ Formative, continuing and summative (final) assessment is also conducted in theory as well as practical/clinicals. In addition, thesis is also assessed separately.

7.2. Formative Assessment

The formative assessment is continuous as well as end-of-term. The former is based on the feedback from the senior residents and the consultants concerned. End-of-term assessment is held at the end of each semester (upto the 5th semester). Formative assessment will not count towards pass/fail at the end of the program, but will provide feedback to the candidate.

7.3. Internal Assessment

The performance of the Postgraduate student during the training period should be monitored throughout the course and duly recorded in the log books as evidence of the ability and daily work of the student. Marks should be allotted out of 100 as followed.

Sr. No.	Items	Marks
1.	Personal Attributes	20
2.	Clinical Work	20
3.	Academic activities	20
4.	End of term theory examination	20
5.	End of term practical examination	20

1. Personal attributes:

- ❖ **Behavior and Emotional Stability:** Dependable, disciplined, dedicated, stable in emergency situations, shows positive approach.
- ❖ **Motivation and Initiative:** Takes on responsibility, innovative, enterprising, does not shirk duties or leave any work pending.
- ❖ **Honesty and Integrity:** Truthful, admits mistakes, does not cook up information, has ethical conduct, exhibits good moral values, loyal to the institution.
- ❖ **Interpersonal Skills and Leadership Quality:** Has compassionate attitude towards patients and attendants, gets on well with colleagues and paramedical staff, is respectful to seniors, has good communication skills.

2. Clinical Work:

- ❖ **Availability:** Punctual, available continuously on duty, responds promptly on calls and takes proper permission for leave.
- ❖ **Diligence:** Dedicated, hardworking, does not shirk duties, leaves no work pending, does not sit idle, competent in clinical case work up and management.
- ❖ **Academic ability:** Intelligent, shows sound knowledge and skills, participates adequately in academic activities, and performs well in oral presentation and departmental tests.
- ❖ **Clinical Performance:** Proficient in clinical presentations and case discussion during rounds and OPD work up. Preparing Documents of the case history/examination and progress notes in the file (daily notes, round discussion, investigations and management) Skill of performing bed side procedures and handling emergencies.

3. Academic Activity: Performance during presentation at Journal club/ Seminar/ Case discussion/Stat meeting and other academic sessions. Proficiency in skills as mentioned in job responsibilities.

4. End of term theory examination conducted at end of 1st, 2nd year and after 2 years 9 months

5. End of term practical/oral examinations after 2 years 9 months.

Marks for **personal attributes** and **clinical work** should be given annually by all the consultants under whom the resident was posted during the year. Average of the three years should be put as the final marks out of 20.

Marks for **academic activity** should be given by the all consultants who have attended the session presented by the resident.

The Internal assessment should be presented to the Board of examiners for due consideration at the time of Final Examinations.

7.4. Summative Assessment

- ❖ Ratio of marks in theory and practicals will be equal.
- ❖ The pass percentage will be 50%.
- ❖ Candidate will have to pass theory and practical examinations separately.

A. Theory examination (Total = 400 marks)

Title	Marks
Paper 1: Basic sciences as related to pediatrics	100
Paper 2: Principles and Practice of Pediatrics	100
Paper 3: Preventive & Social aspects of Pediatrics and Diseases of Neonates & Infants	100
Paper 4: Recent Advances in Pediatrics	100

B. Practical & viva voce examination (Total = 400 marks)

Long Case (s)

Short Case (s)

Viva Voce

8. Job Responsibilities

- ❖ **OPD** : History and work up of all cases and presentation to the consultants
 - This includes all the special clinics also
 - Documentation. OPD card and register completion and maintenance
- ❖ **Indoors** :
 - **PICU/NSCU & NICU/Emergency** : Sending investigations and filling investigation forms
- ❖ **Ward** : History and work up of all cases
 - Starting initial management – Oxygen, IV antibiotics, fluids
 - Transport of sick patients
 - Preparation of weekly, monthly & annual stat
Sending AFP reports.
- ❖ Performing procedures :
 - I/V cannulation

- Lumbar puncture
- Bone marrow examination
- Plural tap, peritoneal tap, pericardial tap, central line insertion, renal biopsy, liver biopsy
- ❖ Examination of all patients and documentation in the files.
- ❖ Completion of files
- ❖ Preparation of typed discharge summary

9. Suggested Reading

9.1. Core Books & Reference Books

- ❖ Nelson Text book of Pediatrics
- ❖ Avery Text book of Neonatology
- ❖ Care of Newborn Meharban Singh
- ❖ Cloherty – Manual of Neonatal Care
- ❖ IAP Text book of Pediatrics

9.2. Journals

- ❖ Indian J Pediatrics
- ❖ Indian Pediatrics
- ❖ Journal of Pediatrics
- ❖ Pediatric Clinics of North America
- ❖ Archives of Diseases of Childhood

10. Model Test Papers

MODEL QUESTION PAPER

MD (Paediatrics)
Paper-I

Basic Sciences in relation to Pediatrics

*Max. Marks:100**Time: 3 hrs*

-
- **Attempt ALL questions**
 - **Answer each question & its parts in SEQUENTIAL ORDER**
 - **ALL questions carry equal marks**
 - **Illustrate your answer with SUITABLE DIAGRAMS**
-

- I Give various steps of thyroid hormone synthesis. Describe types of thyroid dysgenesis.
- II Describe the mechanism of thermogenesis in newborns.
- III Enumerate the 4 signs of good attachment of a baby at the breast. Discuss the advantages of breast milk over bovine milk.
- IV Discuss the pathogenesis of typhoid fever. Explain the interpretation of the widal test.
- V Draw and describe structure of a renal tubule. Enumerate its functions.
- VI Outline the mechanism of CSF formation and its circulation. Mention the various lesions involved in obstructive hydrocephalus.
- VII What is the embryological basis of Tracheo - Esophageal Fistula? Enumerate the various types of Tracheo – Esophageal Fistula.
- VIII Discuss the pathogenesis of bronchial asthma.
- IX Enumerate the causes of generalized oedema in a child and give the basic etiopathogenesis of each.
- X Mention the embryological basis of VSD. Describe the hemodynamics involved.

MODEL QUESTION PAPER

MD (Paediatrics)

Paper-II

Principles and Practice of Pediatrics

*Max. Marks:100**Time: 3 hrs*

-
- **Attempt ALL questions**
 - **Answer each question & its parts in SEQUENTIAL ORDER**
 - **ALL questions carry equal marks**
 - **Illustrate your answer with SUITABLE DIAGRAMS**
-

- I Enumerate causes of Recurrent Abdominal Pain (RAP) in Children. How will you screen and Diagnose a case of Celiac Disease ?
- II Describe etiology, diagnosis & treatment protocol of a case of Aplastic Anemia in a child.
- III Give the International League of Association of Rheumatology (ILAR) classification of Juvenile Idiopathic Arthritis (JIA). Tabulate the differences between rheumatic and Rheumatoid Arthritis.
- IV Enumerate the various neurocutaneous syndromes in children. Discuss the neuro imaging findings in each of them.
- V Discuss the differential diagnosis of an 8 year old child with sudden onset hemiplegia.
- VI How would you investigate a child with failure to thrive?
- VII Describe about the general principles of genetic counselling
- VIII Discuss the management of frequent relapsing Nephrotic Syndrome.
- IX Describe the complications of enteric fever.
- X Discuss the management of a cyanotic spell.

MODEL QUESTION PAPER

MD (Paediatrics)
Paper-III

Preventive & Social aspects of Pediatrics and Diseases of Neonates & Infants

Max. Marks:100

Time: 3 hrs

- **Attempt ALL questions**
 - **Answer each question & its parts in SEQUENTIAL ORDER**
 - **ALL questions carry equal marks**
 - **Illustrate your answer with SUITABLE DIAGRAMS**
-

- I Describe various components of bio-physical profile
- II Enumerate the four questions to be asked to self while receiving a baby at birth. How would you manage in case there is "NO" to any of these?
- III Give the composition of surfactant. Describe the various preventive strategies for Hyaline Membrane Disease (HMD).
- IV Describe the timings and dosages of various nutritional supplements in LBW babies.
- V Give the treatment protocol for a neonate with Patent Ductus Arteriosus (PDA).
- VI Mention the modified Bell's staging for necrotizing enterocolitis (NEC). Give the treatment guidelines of each of them.
- VII Give the algorithm for diagnosis of neonatal cholestasis. Tabulate the differences between Extrahepatic Biliary Atresia (EHBA) and Neonatal Hepatitis.
- VIII Mention the definition and types of apnea in new born. How will you treat a baby with apnea of prematurity?
- IX Enumerate the goals of Reproductive and Child Health (RCH) and the package of services offered by this for children and mothers.
- X Give Acute Flaccid Paralysis (AFP) case classification flow chart. How will you Collect, store & transfer stool sample in a case of AFP?

MODEL QUESTION PAPER

MD (Paediatrics)

Paper-IV

Recent Advances in Pediatrics

*Max. Marks:100**Time: 3 hrs*

-
- **Attempt ALL questions**
 - **Answer each question & its parts in SEQUENTIAL ORDER**
 - **ALL questions carry equal marks**
 - **Illustrate your answer with SUITABLE DIAGRAMS**
-

- I Discuss the mechanism of action & therapeutic advantages of Doxophyllin over aminophylline.
- II Describe Recent advances in the investigation & treatment of Neonatal Hypoxic Ischemic Encephalopathy.
- III Tabulate the immunization schedule with dose and route of each vaccine for children upto 18 years incorporating the recent IAP recommendations.
- IV Enumerate the causes of short stature in children. Outline the changes in the newly developed WHO growth standards.
- V Enumerate the uses of zinc in children. Describe its mechanism of action and advantages in acute diarrheal disease.
- VI What is the basis of intermittent therapy in DOTS?
- VII Outline the algorithm in management of septic shock.
- VIII Enumerate the changes made in the updated PALS guidelines on Pediatric resuscitation of AHA-2000.
- IX Enumerate the stages of hepatic encephalopathy. Describe the recent advances in its treatment.
- X Describe the source, storage & indication for stem cell transplant.