

**COURSE CURRICULUM FOR THIRD PROFESSIONAL B.S.M.S
(PRESCRIBED BY NCISM)**



**Kuzhanthai Maruthuvam
(Paediatrics)**

(SUBJECT CODE : SIDUG-KM)

(Applicable from 2021-22 batch, from the academic year 2024-25 onwards for 5 batches or until further notification by NCISM, whichever is earlier)



**BOARD OF UNANI, SIDDHA AND SOWA-RIGPA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
NEW DELHI-110026**



NCISM

III Professional SIDDHA MARUTHUVA ARIGNAR
(Bachelor of Siddha Medicine and Surgery (B.S.M.S))

Subject Code : SIDUG-KM

Kuzhanthai Maruthuvam

(Paediatrics)

Summary

Total number of Teaching hours: 350			
Lecture (LH) - Theory		110	110(LH)
Paper I	50		
Paper II	60		
Non-Lecture (NLHT)		70	240(NLH)
Paper I	30		
Paper II	40		
Non-Lecture (NLHP)		170	
Paper I	60		
Paper II	110		

Examination (Papers & Mark Distribution)					
Item	Theory Component Marks	Practical Component Marks			
		Practical	Viva	Elective	IA
Paper I	100	100	30	-	20
Paper II	100				
Sub-Total	200	150			
Total marks	350				

Important Note :- The User Manual III B.S.M.S is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual III before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic. In case of difficulty and questions regarding curriculum write to syllabus24sid@ncismindia.org

PREFACE

“Kuzhalinithu yazhinithu enbartham makkal

Mazhalaisol kela thavar”

A verse from *Tirukural* portrays the significance of children.

“Peru, Ilamai, Inbam, Pini, Moopu, Sakkadu

Arum karuvila Amaippu”

Also the verse implies that the entire quality of life and a healthy life from children to adulthood is rooted during fetal development.

Kuzhanthai Maruthuvam (Pediatrics) is dedicated to the health, well-being, and management of diseases in infants, children, and adolescents. This field requires a specialized understanding of growth, development, and pediatric healthcare challenges, along with a compassionate and patient-centered approach. The primary aim of this curriculum is to equip Siddha medical students with the knowledge, skills, and attitudes necessary to provide comprehensive care for this unique population. By integrating Siddha principles with contemporary pediatric advancements, the syllabus ensures that students develop a strong foundation in preventive and curative pediatric care, addressing both acute and chronic childhood illnesses effectively.

The competency-based curriculum maintains a balanced approach, combining theoretical knowledge, clinical training, and research exposure to prepare students for real-world pediatric healthcare challenges. The syllabus is divided into two structured parts: Paper I covers fundamental concepts, including stages of growth and development, nutritional requirements, preventive care (such as immunization), and disorders of growth and development. Paper II focuses on clinical aspects, enabling students to understand, diagnose, and manage various childhood diseases using both Siddha and modern medical approaches. The curriculum also emphasizes effective communication skills, ethical decision-making, and holistic treatment approaches, which are essential in pediatric care.

To ensure practical learning, students are exposed to diverse clinical settings, enabling them to apply their knowledge in real-life pediatric cases. Through hands-on training, case discussions, and interactive learning methods, this syllabus prepares future Siddha pediatricians to handle a wide range of pediatric health challenges with confidence and expertise. We hope this curriculum inspires and equips learners to not only excel academically but also cultivate empathy, resilience, and a lifelong dedication to making a meaningful impact in the lives of young patients.

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Course Code and Name of Course

Course code	Name of Course
SIDUG-KM	Kuzhanthai Maruthuvam

Table 1 : Course learning outcomes and mapped PO

SR1 CO No	A1 Course learning Outcomes (CO) SIDUG-KM At the end of the course SIDUG-KM, the students should be able to-	B1 Course learning Outcomes mapped with program learning outcomes.
CO1	Explain the <i>Pachillam kuzhanthaiyin paramarippu</i> (Care of New born), Immunization schedules and National Health Programme Policies.	PO1,PO9
CO2	Describe normal growth and development and disorders in children and adolescence.	PO1,PO9
CO3	Elucidate the classification, symptoms and management of <i>Agakarana noigal</i> , <i>Purakarana noigal</i> as per Siddha pediatric literature and relate to contemporary research studies.	PO5,PO10
CO4	Distinguish between normal and special children with disabilities and prepare an appropriate management plan.	PO5,PO6,PO10
CO5	Elaborate the system wise pediatric diseases in terms of signs and symptoms, etiopathogenesis, laboratory investigations, diagnosis and plan the management pertaining to the systems.	PO7,PO9
CO6	Diagnose the diseases by comprehensive clinical examination through proficiency in Siddha principles and concepts, modern investigatory methods with line of treatment.	PO1,PO3,PO4,PO8
CO7	Construct a counselling plan tailored to appropriate situations showing empathy and understanding the parenting challenges.	PO11,PO12

Table 2 : Contents of Course

Paper 1 (KUZHANTHAI MARUTHUVAM (PEDIATRICS PAPER) -1)						
Sr. No	A2 List of Topics	B2 Term	C2 Marks	D2 Lecture hours	E2 Non- Lecture hours Theory	F2 Non- Lecture hours Practica I
1	<p>Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born)</p> <p>This topic explains immediate care of newborns including definitions, diseases occurring from birth to 3 months, care in Siddha aspects, approach to term, preterm and low birth weight babies, neonatal diseases and neonatal respiratory diseases.</p> <p>Definitions in the neonatal period</p> <p>1.1 Definition of Neonatal period</p> <ul style="list-style-type: none"> • Definition of postnatal period • Definition of perinatal period • Definition of live birth • Definition of still birth • Definition of term neonate • Definition of preterm neonate • Definition of post term neonate • Assessment of Anthropometry • Assessment of APGAR Score • Assessment of Neonatal reflexes <p>1.2 Diseases occurring in 0 to 12 months Causes,types,<i>kurikunangal</i> and <i>maruthuvam</i> of <i>Purakarana Noigal, Kiranthi, Thodam</i></p> <p>1.3 Care of newborn in Siddha aspects</p> <ul style="list-style-type: none"> • Care of the newborn immediately after birth • Care of umbilical cord including its ulceration and its medicines • Bathing newborn – Days of bathing, benefits of boiling the water with herbs <i>Maruthondri and Venthayam</i> • Administering <i>castor oil, charred vasambu</i> • Benefits of applying <i>Sihakai, Pachaipayiru</i> on newborn skin and disadvantages of using soap • Techniques to wash the baby • Benefits of using egg white yolk, Cow's 	1	14	9	4	3

	<p>ghee and Vathumai Ennai (almond oil) in newborn</p> <ul style="list-style-type: none"> • Making the newborn to sleep including duration of sleep • Procedures to be followed during sleep • Dressing the newborn - using soft, clean white clothes • Drying the clothes in sunlight • Covering with woolen clothes during winter <p>1.4 Approach to a Term, Preterm newborn and Infants with Low birth weight</p> <ul style="list-style-type: none"> • Causes • Characteristics • Complications • Management • Kangaroo mother care • Intrauterine growth restriction (IUGR) • Asymmetrical IUGR • Symmetrical IUGR <p>1.5 Diseases in newborn Causes,clinical features,evaluation and management of</p> <ul style="list-style-type: none"> • TORCHs -Toxoplasmosis,Rubella,Cytomegalovirus, Herpes simplex,syphilis • Umbilical cord infections • Neonatal Jaundice • Neonatal Seizure • ABO Incompatibility • Rh incompatibility <p>1.6 Respiratory diseases in newborn Causes, clinical features, evaluation, complications and management including resuscitation of</p> <ul style="list-style-type: none"> • Birth asphyxia • Hypoxic Ischemic Encephalopathy • Hyaline membrane disease • Meconium aspiration syndrome 					
2	<p>Pachilam Matrum Ilam Kuzhanthaigalin Unavu (Feeding in Infants and Young children)</p> <p>This topic deals with definitions of breast milk feeding its composition, advantages, lactation</p>	1	9	5	2	3

failure, concepts of breastfeeding in Siddha literatures, herbs and medicines enhancing lactation, weaning and introducing complimentary foods in infants.

2.1 Definitions

- Exclusive breast feeding
- Predominant breast feeding
- Partial breast feeding

2.2 Composition of breast milk including

- Colostrum
- Transitional milk
- Mature milk
- Preterm milk
- Fore milk
- Hind milk
- Difference between cow's milk, milk formula and breast milk

2.3 Advantages of breast milk feeding and lactation failure

- Positions of feeding
- Expression of breast milk
- Conditions affecting breast feeding
- Lactation failure and its management
- Advantages of breast milk feeding

2.4 Feeding of newborn as per Siddha

- Frequency of feeding
- Contraindications for breastfeeding
- Psychological conditions of mother like stress ,anriness, worry and fear.
- Health conditions of mother like ulcers in nipple, tuberculosis,fever.
- Using cow's milk as alternative feeding for infants and its dilution as per month.
- Precautions to be followed by mother during breast feeding.
- Characteristics of breast milk on the basis of physical configuration of mother.
- Foods and medicines that enhance breast milk secretion like
Palsura, Venthayam, Ellu, Aalivithai, Iluppai,

	<p><i>Kalyana Murungai, Vetrilai, Sowbakiya Sundi legiyam</i> as per Siddha literature.</p> <p>2.5 Weaning and introducing complimentary foods as per age and quantity.</p>					
3	<p>Vaccine Preventable diseases (Immunization)</p> <p>This topic covers the definitions of immunization, National immunization schedule, vaccines preventing diseases, principles of immunization in Siddha like <i>Urai mathirai, Sei nei</i>.</p> <p>3.1 Vaccine preventable diseases (Immunization)</p> <p>Definitions</p> <ul style="list-style-type: none"> • Immunization • Active Immunization • Passive Immunization • Vaccination • Vaccines • Cold chain <p>3.2 National Immunization Schedule including IAP Schedule and storage of vaccines (cold chain)</p> <p>3.3 Vaccines preventing diseases</p> <p>Contents, dose, route of administration, site, booster doses and adverse reactions of</p> <ul style="list-style-type: none"> • Bacillus Calmette - Guerin (BCG) • Oral Polio Vaccine (OPV) • Diphtheria, Pertussis, Tetanus (DPT) • Measles, Mumps, Rubella (MMR) • Rotavirus • Pneumococcal conjugate vaccine • Tetanus toxoid • Typhoid vaccine • Hepatitis A, B • Haemophilus influenza type b vaccine (Hib) • Varicella • Combined vaccines in infants, children <p>3.4 Principles of immunization in Siddha</p>	1	7	5	3	2

	<ul style="list-style-type: none"> Administration of <i>Urai mathirai, Sei Nei</i> Practices in preventing diseases like oil bath, wearing medicinal bracelets (<i>vasambu kappu, yellow twine wearing</i>) in the wrist and ankle, various types of <i>kulisam</i>. 					
4	<p>Kuzhanthaigalin Iyalpana Udal Matrum Thiran Valarchi Nilaigal (Normal growth and development in children)</p> <p>This topic focusses on the definitions of normal growth and development, stages of growth from fetus to child including <i>Paruvangal</i> of children, assessment of physical growth, assessment of developmental milestones and cognitive development – theory of John Piaget in children.</p> <p>4.1 Definitions</p> <ul style="list-style-type: none"> Growth and development Principles of growth Laws of growth Differences between growth and development Factors affecting growth and development <p>4.2 Stages of growth from fetus to child (<i>Karu urpathi and paruvangal</i>)</p> <ul style="list-style-type: none"> <i>Kuzhanthaigalin valarchi paruvangal</i> in male and female child compared with age and stages of growth in modern aspects like <i>Kappu Paruvam</i> <i>Sengeerai Paruvam</i> <i>Thala Paruvam</i> <i>Sappani Paruvam</i> <i>Mutha Paruvam</i> <i>Varugai Paruvam</i> <i>Ambuli Paruvam</i> <i>Sitiril Paruvam</i> in boys <i>Siruther Paruvam</i> in boys <i>Siruparai Kottal Paruvam</i> in boys <i>Kazhangu</i> in girls <i>Ammanai/Neeraadal</i> in girls <i>Oonjal</i> in girls <p>4.3 Assessment of Physical growth</p> <ul style="list-style-type: none"> Height 	2	7	6	4	10

	<ul style="list-style-type: none"> • Weight • Head circumference • Chest circumference • Mid Arm circumference • Arm span • Upper segment / Lower segment ratio (US/LS ratio) • Tools to assess physical growth • Infantometer • Stadiometer • Baby weighing scale • Weighing machine • Inch tape • Skin fold caliper • Eruption of teeth in children. <p>4.4 Assessing Developmental Milestones</p> <ul style="list-style-type: none"> • Gross motor • Fine Motor • Language • Social and emotional. • Drawing skill at various ages • Block skill at various ages <p>4.5 Cognitive development – theory of John Piaget</p> <ul style="list-style-type: none"> • Sensory motor stage • Preoperational stage • Concrete operational stage • Formal operational stage • Domains including vision and hearing 					
5	<p>Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children)</p> <p>This topic makes the learner to understand the definitions, disorders of growth like short stature, failure to thrive ,craniosynostosis ,macrocephaly and microcephaly.</p> <p>5.1 Definitions</p> <ul style="list-style-type: none"> • Short stature • Failure To Thrive <p>5.2 Short stature</p> <ul style="list-style-type: none"> • Causes 	2	16	5	4	12

	<ul style="list-style-type: none"> • Types • Clinical features • Investigations including bone age assessment • Diagnosis • Management <p>5.3 Failure to thrive</p> <ul style="list-style-type: none"> • Causes • Types • Clinical features • Investigations • Management <p>5.4 Craniosynostosis</p> <p>Definition, causes ,clinical feature, diagnosis and management of</p> <ul style="list-style-type: none"> • Scaphocephaly • Brachycephaly • Acrocephaly • Plagiocephaly • Trionocephaly <p>5.5 Causes, clinical features, diagnosis and management of</p> <ul style="list-style-type: none"> • Microcephaly • Macrocephaly 					
6	<p>Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children)</p> <p>This topic describes the definitions, common developmental disorders ,speech disorders and impact of traditional feeding tools and play toys in the development of children.</p> <p>6.1 Definition of developmental delay</p> <p>Causes for congenital anomalies according to <i>Thirumanthiram</i>.</p> <p>6.2 Common developmental disorders</p> <p>Causes, types, clinical features, complications,</p>	2	16	7	4	14

<p>investigations, diagnosis, management through internal and external therapies of</p> <ul style="list-style-type: none"> • <i>Sirasthamba vatham</i> (Cerebral palsy) • <i>Moolai Thiran Kuraivu</i> (Mental retardation) <p>Causes, types, clinical features, complications, investigations, diagnosis, management through internal and external therapies of</p> <ul style="list-style-type: none"> • <i>Mantha Sanni</i> (Autistic Spectrum Disorders and Attention Deficit Hyperactivity Disorders) <p>Diagnostic tools</p> <ul style="list-style-type: none"> • Baroda screening test • Denver development screening test <p>6.3 Speech Disorders</p> <p>Causes, types, clinical features, investigations and management of</p> <ul style="list-style-type: none"> • Dysarthria • Apraxia • Speech sound disorder • Fluency disorder • Selective Mutism <p>Definitions of</p> <ul style="list-style-type: none"> • Stuttering • Stammering • Cluttering <p>6.4 Traditional feeding tools and play toys influencing child development</p> <ul style="list-style-type: none"> • <i>Sangu</i> • <i>Paalaadai</i> • <i>Thottil</i> • <i>Oonjal</i> • <i>Marakuthirai</i> and their impacts in the development of children 						
7	Kuzhanthaigalin Nadathai Kuraipadugal (Behavioural problems in children)	2	6	2	1	2

	<p>This topic focusses on the definitions, types of behavioural problems in children and the role of the parents in managing these children.</p> <p>7.1 Definition and types of behavioural problems and their impact in growth and development in children.</p> <p>7.2 Causes, clinical features, management of</p> <ul style="list-style-type: none"> • Thumb sucking • Nail biting • Pica <p>7.3 Causes, types, clinical features and management of</p> <ul style="list-style-type: none"> • Temper tantrums • Breath holding spells • Eating disorders <p>7.4 Good parenting skills</p>					
8	<p>Pathin Paruvam (Adolescence)</p> <p>This topic deals with definitions, phases, developmental characteristics, health and psychological problems and hormonal changes in adolescents and its management.</p> <p>8.1 Definition of Adolescence</p> <ul style="list-style-type: none"> • Stages of adolescence • Sexual maturity rating scale <p>8.2 Three phases of adolescence</p> <ul style="list-style-type: none"> • Early adolescence • Mid adolescence • Late adolescence • Stages of adolescence in tamil literatures • Girls • <i>Pethai</i> - 5 - 7 yrs • <i>Pethumbai</i> - 8 - 11 yrs • <i>Mangai</i> - 12 -13 yrs • <i>Madanthai</i> - 14 -19 yrs • <i>Arivai</i> - 20 -15 yrs • <i>Therivai</i> - 26 - 31 yrs • <i>Perilampenn</i> - 32 - 40 yrs • Boys 	3	6	3	2	3

- *Balagan* - 1 - 12 yrs
- *Vidalai* - 12 - 24 yrs
- *Kaalai* - 24 - 36 yrs
- *Meeli* - 36 - 48 yrs
- *Maravon* - 48 - 60 yrs
- *Thiravon* - 60 - 72 yrs
- *Muthumagan* - above 72 yrs

8.3 Developmental characteristics of 3 phases of adolescence based on

- Somatic development
- Sexual development
- Cognitive and social development including morphological changes in both boys and girls

8.4 Health problems including

Nutritional problems like

- Iron deficiency anemia
- Eating disorders like
- Anorexia Nervosa
- Bulimia Nervosa in adolescents and their impacts and management
- Sexually transmitted diseases

8.5 Psychological problems in adolescence including

- Anxiety
- Depression
- Adjustment disorder
- Suicidal tendencies and its management
- Juvenile Delinquency

8.6 Hormonal changes in adolescence and its impact on their health.

9	<p>Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders)</p> <p>This topic explains about the definitions, protein energy malnutrition, daily requirements, dietary sources, deficiency and hypervitaminosis and management of vitamins, <i>Paandu</i> and <i>Sobai (Oothal Noi)</i>, anemia, obesity and the caloric value</p>	3	17	6	5	9
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of common Indian foodstuffs .

9.1 Definition

- Macronutrients and Micronutrients and dietary recommendation in different age groups of children and assessment of nutritional status.

9.2 Protein energy malnutrition (PEM)

- Types (Kwashiorkor, Marasmus, Marasmic Kwashiorkor)
- Clinical features
- Grading
- Investigations
- Complications and dietary management.

9.3 Daily requirements, dietary sources, deficiency, hypervitaminosis and management of

- Vitamins - A,D,E,K,B,C and trace elements like zinc, copper, selenium, fluoride.

9.4 Paandu and Sobai (Oothal Noi)

Vagaigal (Types), *Varalaru* (causes), *Theerum theera Nilai* and *Maruthuvam* (management) of

- *Vatha pandu*
- *Pitha pandu*
- *Silerpana pandu*
- *Ratha pandu*
- *Thontha pandu*

Varalaru (causes), *Theerum theera Nilai* and *Maruthuvam* (management) of

- *Vatha sobai*
- *Pitha sobai*

Causes, classifications, clinical features, management of -

Anemia including sickle cell anemia and hemophilia in children.

Athithoola rogam (Obesity in children) :

	<ul style="list-style-type: none"> • <i>Pancha bootha theory, three humour theory</i> in obesity. • Role of tastes and gunam in obesity. • Causes, etiopathogenesis, types, clinical features, diagnostic criteria, complications and management of obesity. <p>9.5 Describe the caloric value of common Indian foodstuffs like</p> <ul style="list-style-type: none"> • Milk, rice, cereals, pulses, nuts, grains, green leafy vegetables, seasonal vegetables, root vegetables, fruits, soyabeans, egg, fish, meat, chicken, sugar, oil. 					
10	<p>National Health Programmes related to Children</p> <p>This topic gives an insight of the national health programmes related to mother and child health and control of nutritional deficiency disorders.</p> <p>10.1 National health programmes related to mother and child</p> <ul style="list-style-type: none"> • Integrated Child Developmental Service Programme (ICDS) • National Rural Health Mission (NRHM) <p>10.2 National programmes related to control of Nutritional deficiency disorders</p> <ul style="list-style-type: none"> • National Nutrition Policy (NNP) • Balwadi Nutritional Programme(BNP) • Mid Day Meal Programme • National Nutritional Anaemia Prophylaxis Program (NNAPP) 	3	2	2	1	2
Total Marks			100	50	30	60

Paper 2 (KUZHANTHAI MARUTHUVAM (PEDIATRICS) - PAPER II)						
Sr. No	A2 List of Topics	B2 Term	C2 Marks	D2 Lecture hours	E2 Non-Lecture hours Theory	F2 Non-Lecture hours Practica I

11	<p>Seerana Uruppu Mandala Noigal (Gastro intestinal disorders)</p> <p>This topic focusses on the definition, etiology, clinical features, investigations, diagnosis and management of common gastro intestinal disorders of children including dehydration and its management.</p> <p><i>Iyal</i> (Definition), <i>Noi Varum Vazhi</i> (Etiology), <i>Pothu kurigunangal</i> (Common sign and symptoms), <i>Vagaigal</i> (Types), <i>Maruthuvam</i> (Management) of</p> <p>11.1. Palleeru Noi (Gingivitis)</p> <p>11.2. Seriyaap paduvan (Angular Stomatitis)</p> <p>11.3. Lactose intolerance</p> <p>11.4. Malabsorption syndrome</p> <p>11.5. Akkaram (Oral ulcers)</p> <p>11.6. Vaanathi (Vomiting)</p> <p>11.7. Vikkal (Hiccups)</p> <p>11.8. Seriyaamai (Indigestion)</p> <p>11.9. Maantham (Digestive disorders of children)</p> <p>11.10. Kazhichal (Diarrhoea,Dysentery)</p> <p>11.11. Dehydration and its management</p> <p style="padding-left: 40px;">Oral rehydration</p> <p>11.12. Approach to pediatric gastro intestinal emergencies</p> <p>Warning signs and symptoms of various gastro intestinal disorders.</p> <p>Pediatric accidental poisoning and its management.</p>	1	11	8	4	13
12	<p>Suvaasa Noikal (Respiratory Disorders)</p> <p>This topic deals with the definition, etiology,</p>	1	11	6	4	12

	<p>pathophysiology ,clinical features, investigations, diagnosis and management of upper and lower respiratory disorders in children.</p> <p><i>Iyal</i> (Definition), <i>Noi Varum Vazhi</i> (Etiology), <i>Pothu Kurigunangal</i> (Common sign and symptoms), <i>Vagaigal</i> (Types), <i>Maruthuvam</i> (Management) of</p> <p>12.1. Kanam (Respiratory disorders in children)</p> <p>12.2. Iraippu irumal (Bronchial Asthma)</p> <p>12.3. Mel suvasa pathai noigal (Upper respiratory tract Infections - URTI)</p> <p>Rhinitis (common cold)</p> <p>Peenisam (Sinusitis)</p> <p>Mookadiyan azharchi (Adenoiditis)</p> <p>Kural valai azharchi (Acute pharyngitis or Tonsillo pharyngitis, Epiglottitis and Laryngitis)</p> <p>12.4. Keezh suvasa pathai noigal (Lower Respiratory Tract Infections-LRTI)</p> <p>Suvasa thotru (Croup)</p> <p>Moochu kuzhal azharchi (Bronchiolitis)</p> <p>Nurai eral kaatru pai thotru (Pneumonia)</p> <p>Muthanmai kasa noi (Primary complex)</p> <p>12.5. Swasa Muttal Noigal (Acute respiratory distress syndrome - ARDS)</p>					
13	<p>Thamaraga Noikal (Cardio Vascular disorders)</p> <p>This topic describes the definition, etiology, types, hemo dynamics, clinical features, complications, investigations, and management of congenital heart diseases.</p> <p>Definition, etiology, types, hemo dynamics, clinical features, complications, investigations, and management of</p>	1	10	4	5	10

	<p>13.1. Congenital cardiac diseases- classification</p> <p>13.2. Cyanotic heart diseases</p> <p>Tetrology of Fallot</p> <p>Tricuspid atresia</p> <p>Ebstein Anomaly</p> <p>Transposition of great vessels</p> <p>Total anomalous pulmonary venous congestion</p> <p>13.3. Acyanotic heart diseases</p> <p>Atrial septal defect</p> <p>Ventricular septal defect</p> <p>Patent ductus arteriosus</p> <p>Coarctation of the aorta</p>					
14	<p>Narambu mandala Noikal (Neurological disorders)</p> <p>This topic explains the definition, etiology, pathophysiology, classification, clinical features, investigations, diagnosis and management of neurological disorders in children and their long term outcomes.</p> <p>Introduction, <i>Noi varum vazhi</i> (etiology), <i>Vagaigal</i> (types), <i>Kurikunangal</i> (clinical features), <i>Maruthuvam</i> (management) of</p> <p>14.1. Baala vaatham</p> <p>14.2. Valippu</p> <p>14.3. Sanni vatham (Delirium)</p> <p>Definition, etiology, pathophysiology, classification, clinical features, investigations, diagnosis and management of</p> <p>14.4. Bala pakka vatham (Infantile hemiplegia)</p> <p>14.5. Sanni vaatha Thalai Nokkaadu</p>	1	11	6	5	15

	(Meningitis,Encephalitis) 14.6.Hydrocephalus 14.7.Mental retardation					
15	<p>Thotru Noikal (Infectious Diseases)</p> <p>This topic describes the definition, etiology, pathophysiology, clinical features, investigations, diagnosis and management of common infectious diseases in children including helminthic infections.</p> <p><i>Iyal</i> (definition), <i>Noi varum vazhi</i> (etiology), <i>Pothu kurigunangal</i> (clinical features), <i>Vagaigal</i> (types), <i>Maruthuvam</i> (management) of</p> <p>15.1.Suram</p> <p>Definition, etiology, pathophysiology, clinical features,investigations, diagnosis and management of</p> <p>15.2.Kirumi suram</p> <p>A. (Common Bacterial infections in children)</p> <p><i>Vali keel vayu suram</i> (Rheumatic fever), <i>Kakkuvan Irumal</i> (Whooping cough/ Pertussis), <i>Thondai adaipan noi</i>(Diphtheria), <i>Aama suram</i> (Typhoid fever)</p> <p>B.Common Viral infections in children</p> <p><i>Kamalai</i> (Viral Hepatitis) <i>Ilampillai Vatham</i> (Poliomyelitis) <i>Thattammai</i> (Measles) <i>Poottu thaalammai</i> (Mumps) <i>Vil vatha sanni</i> (Tetanus) <i>Ammai suram</i> (Chicken pox)</p>	2	8	8	5	8

	<p>Respiratory syncytial virus (RSV) infection</p> <p>Dengue fever</p> <p>Acquired Immuno deficiency syndrome (AIDS) in Children</p> <p>Severe acute respiratory syndrome Coronavirus 2 (SARS-CoV-2) infection</p> <p>Bird's Flu</p> <p>Swine Flu</p> <p>15.3.Kudal puzhu noigal (Helminthic infestations)</p> <p>Amoebiasis</p> <p>Naaku poochi (Ascariasis/ round worm)</p> <p>Keeri Poochi (Pin worm)</p> <p>Masarai Poochi (Whip worm)</p> <p>Giardiasis</p> <p>Hook worm</p> <p>Taenia Species</p> <p>Parasitic infection - Malaria</p>					
16	<p>Janana Uruppu Mandala Noikal (Genito Urinary Disorders)</p> <p>This topic deals with the definition, etiology, pathophysiology, clinical features, investigations, diagnosis and management of Genito urinary disorders in children.</p> <p><i>Iyal</i> (definition),<i>Noi varum vazhi</i> (etiology),<i>Pothu kurigunangal</i> (clinical features),<i>Vagaigal</i> (types),<i>Maruthuvam</i> (management) of</p> <p>16.1.Neerkattu</p> <p>Definition, etiology, pathophysiology, clinical features, investigations, diagnosis and management of</p>	2	5	2	2	5

	<p>16.2. Congenital defects of Genito urinary system</p> <p>16.3. Enuresis</p> <p>16.4. Encopresis</p> <p>16.5. Acute Glomerulo Nephritis</p> <p>16.6. Nephrotic Syndrome</p>					
17	<p>Thasai Matrum Enbu Kuraipadugal (Musculo skeletal disorders)</p> <p>This topic elaborates the definition, etiology, pathophysiology, clinical features, investigations, diagnosis and management of musculo skeletal disorders in children.</p> <p>Definition, etiology, pathophysiology, clinical features, investigations, diagnosis and management of</p> <p>17.1. Muscular dystrophy</p> <p>17.2. Lordosis</p> <p>17.3. Kyphosis</p> <p>17.4. Scoliosis</p>	2	10	3	2	10
18	<p>Marabanu Kuraipadugal (Genetic disorders)</p> <p>This topic explains the definition, etiology, pathophysiology, clinical features, investigations, diagnosis and management of common genetic disorders in children.</p> <p>Definition, etiology, pathophysiology, clinical features, investigations, diagnosis and management of</p> <p>18.1. Chromosomal abnormalities</p> <p>Down's syndrome (Trisomy 21)</p> <p>Patau syndrome (Trisomy 13)</p> <p>Edwards syndrome (Trisomy 18)</p> <p>Fragile X Syndrome,</p>	2	7	8	2	5

	<p>Klinefelter Syndrome,</p> <p>Turner Syndrome.</p> <p>18.2. Cystic fibrosis</p>					
19	<p>Naalamillaa Surappigalin Kuraipadugal (Endocrine disorders)</p> <p>This topic focusses on the definition, etiology, pathophysiology, clinical features, investigations, diagnosis and management of endocrine disorders in children.</p> <p>Definition, etiology, pathophysiology, clinical features, investigations, diagnosis and management of</p> <p>19.1. Cushing's syndrome</p> <p>19.2. Balar madhumega Noi (Juvenile diabetes mellitus)</p> <p>19.3. Kurai veethana kolarugal (Congenital Hypothyroidism)</p>	2	5	2	1	7
20	<p>Thol Noigal (Skin Diseases)</p> <p>This topic focuses on the definition, etiology, types, pathophysiology, clinical features, investigations, diagnosis and management of common skin infections in children.</p> <p><i>Iyal</i> (Definition), <i>Noi varum vazhi</i> (etiology), <i>Pothu kurigunangal</i> (Common signs and symptoms), <i>Vagaigal</i> (types), <i>Maruthuvam</i> of</p> <p>20.1. Karappan</p> <p>20.2. Sirangu (Scabies)</p> <p>Definition, etiology, pathophysiology, types, clinical features, investigations, diagnosis and management of</p> <p>20.3. Atopic dermatitis</p> <p>20.4. Diaper rashes</p> <p>20.5 Umbilical infection</p>	3	10	4	3	13

	<p>20.6 Impetigo</p> <p>20.7 Psoriasis</p> <p>20.8. Insect bites</p>					
21	<p>Sevi mooku thondai & Kann Noikal (ENT and Eye diseases)</p> <p>The topic describes the definition, etiology, clinical features, complications, investigations and management of common ENT diseases in children.</p> <p>Definition, etiology, clinical features, complications, investigations and management of</p> <p>21.1. Sevi Noikal (Common ear infections)</p> <p><i>Sevi azharchi (Otitis Media – Acute and Chronic)</i></p> <p><i>Sevi kuthu (Approach to ear pain)</i></p> <p>21.2. Mooku Noi (Common nasal conditions)</p> <p><i>Sala Peenisam (Rhinorrhea)</i></p> <p><i>Mooku ratha ozhuku (Epistaxis)</i></p> <p><i>Nasikaa peedam (Nasal polyp)</i></p> <p>Septal deviation</p> <p>21.3. Kuralva?ai noi (Common throat disorder)</p> <p><i>Lasuna Thabitham (Tonsilitis)</i></p> <p>21.4. Kan Noigal (Common Eye disorders)</p> <p>Congenital cataract</p> <p><i>Maalaikan (Nyctalopia)</i></p> <p>Myopia</p> <p>Ophthalmia neonatorum (Amaram)</p>	3	5	5	2	7
22	<p>Piravi Kuraipaadugal (Congenital birth defects)</p>	3	5	2	1	5

	<p>This topic equips the learner to understand the definition, etiology, clinical features, investigations, diagnosis and management of common congenital birth defects .</p> <p>Definition, etiology, clinical features, investigations, diagnosis and management of</p> <p>22.1 .Cleft lip and Cleft palate</p> <p>22.2. Congenital talipes equinovarus (Club foot)</p> <p>22.3. Osteogenesis imperfecta</p> <p>22.4. Imperforate Anus</p>					
23	<p>Varmam Matrum Pura Maruthuvam</p> <p>This topic deals with the external therapies and varmam therapy used in special children and therapies used for common ailments in children</p> <p>23.1.External Therapies in children</p> <p><i>Thokkanam</i></p> <p><i>Podi thimirthal</i></p> <p><i>Nasiyam</i></p> <p><i>Otradam</i></p> <p><i>Pugai</i></p> <p><i>Mai</i></p> <p><i>Poochu</i></p> <p><i>Pottanam</i></p> <p><i>Kattu</i></p> <p><i>Varma pulligal thoondal</i></p>	3	2	2	4	0
Total Marks		100	60	40	110	

Table 3 : Learning objectives of Course

Paper 1 (KUZHANTHAI MARUTHUVAM (PEDIATRICS PAPER) -1)										
A3 Course outcome	B3 Learning Objective (At the end of the session, the students should be able to)	C3 Domain/sub	D3 MK / DK / NK	E3 Level	F3 T-L method	G3 Assessment	H3 Assessment Type	I3 Term	J3 Integration	K3 Type
Topic 1 Pachilam Kuzhantthaiyin Paramarippu (Care Of New Born) (LH :9 NLHT: 4 NLHP: 3)										
A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO1	Define and compare neonatal, perinatal, postnatal period, term baby, preterm baby, live birth and still birth.	CK	MK	K	L&PPT	S-LAQ	F&S		-	LH
CO1	Explain the five components of APGAR score.	CC	MK	KH	L_VC	VV-Viva,P-RP	F&S		-	LH
CO1	Describe moro reflex,startle response,rooting and sucking reflex,glabellar reflex,grasp reflex, tonic neck reflex and their significance.	CC	MK	KH	L_VC	P-PRF,P-VIVA	F&S		-	LH
CO1	Demonstrate the neonatal reflexes in newborn with their significance.	PSY-GUD	DK	KH	RP	DOPS,DOPS	F&S		-	NLHT1.1
CO3	Describe the Iyal, <i>Noi varum vazhi</i> , <i>Vayathu</i> , <i>Kurikunangal</i> , <i>Vagaigal</i> , <i>Maruthuvam</i> and complications of <i>Kiranthi</i> and <i>Thodam</i> and <i>Pura karana noigal</i> .	CC	MK	K	L&GD	VV-Viva,T-OBT	F&S		-	LH
CO3	Recite the verses of the different types of <i>Thodam</i> and explain the meaning.	CK	MK	SH	REC,FC	P-REC	F&S		-	NLHT1.2
CO1	Illustrate the steps in caring the baby immediately after birth including feeding, washing, dressing, sleeping and caring of umbilical cord.	CC	MK	KH	L,RP	M-POS,M-CHT	F&S		V-NAVO	LH

CO1	Design a model of newborn care unit and demonstrate its functions.	PSY-GUD	DK	KH	D-M,PrBL	M-MOD	F&S		-	NLHT1.3
CO1	Classify low birth weight babies according to weight and describe the types, characteristics, complications and management .	CK	MK	KH	L	VV-Viva	F&S		-	LH
CO1	Recognize the significance of TORCH infections in newborn.	CK	MK	KH	TBL,L &GD,B L	C-VC,INT, CL-PR,T-CS	F&S		-	LH
CO1	Enumerate the herbal medicines used in the infections of umbilical cord.	CAP	MK	K	FC,DIS	M-CHT,QZ	F&S		-	NLHT1.4
CO1	Describe the causes ,types, clinical manifestations, risk factors, complications and management of neonatal jaundice, neonatal seizures, hypoxic ischemic encephalopathy, meconium aspiration syndrome and hyaline membrane disease.	CC	MK	KH	L,BL	T-OBT,OS CE, C-VC, S-LAQ,CBA	F&S		-	LH
CO1	Describe the clinical features,diagnosis,management and prevention of ABO and Rh incompatibility.	CC	MK	KH	GBL,PB L,L&PP T ,CBL	T-OBT,OS CE,CBA,DEB,QZ	F&S		-	LH
CO1	Demonstrate the resuscitation steps in a distressed newborn on manikin.	PSY-GUD	DK	SH	TBL,G BL,RP	SP	F&S		-	NLHT1.5
CO1, CO6	Perform a detailed history taking including registering the history of present illness,antenatal and birth history,feeding history, Immunization history and socioeconomic history in newborn.	PSY-GUD	MK	SH	D-BED	P-EXAM,O SPE,P-VIVA,SP,P-PRF	F&S		-	NLHP1.1
CO1, CO6	Perform the assessment of the length, weight, head circumference,chest circumference , mid arm circumference of a newborn .	PSY-GUD	MK	SH	D-BED	Log book,P-EXAM,D OPS,DOPS, P-VIVA	F&S		-	NLHP1.2

CO1, CO6	Perform the assessment of vital signs in newborn.	PSY- GUD	MK	SH	D	P-PRF,P- EXAM	F&S		-	NLHP1.3
CO1, CO6	Perform the system wise examination in newborn and record the findings.	PSY- GUD	MK	SH	D-BED	DOAP,P-E XAM,P- VIVA	F&S		-	NLHP1.4
CO1, CO6	Enumerate the common step wise procedures to be followed in clinical examination of a child pertaining to all systems.	PSY- GUD	MK	SH	D-BED	RK,SP,P-V IVA,DOAP ,Log book	F&S		-	NLHP1.5

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 1.1	Demonstration of neonatal reflexes.	<p>The teacher explains how to demonstrate neonatal reflexes so that the students can understand and recall the reflexes .</p> <p>Roleplays :</p> <p>Divide the students into small groups.Assign different reflexes to each group.</p> <p>Each group acts out the reflex .</p> <p>The other students have to guess which reflex is being demonstrated.</p> <p>Duration : 60 minutes.</p>
NLHT 1.2	Recitation of poems	<p>Flipped classroom activity :</p> <p>The teacher assigns set of verses from each type of <i>Thodam</i> and its meaning to read at home.</p> <p>Group recitation :</p> <p>In classroom the teacher divide the students into small groups .</p> <p>Each group takes turns reciting the verses in front of the class .</p> <p>They should focus on delivering the verse with correct pronunciation and understanding the meaning.</p> <p>The teacher assess the best performance.</p> <p>Duration : 30 minutes.</p>

NLHT 1.3	Designing a newborn care unit.	<p>Project based learning :</p> <p>Divide the students into groups and they are assigned the project of designing a new born care unit .</p> <p>Pre class activity :</p> <p>Model building :</p> <p>The students should create a model of newborn care unit using cardboards and other required materials at home.</p> <p>In class activity :</p> <p>Each group present and explain their models before the class . .</p> <p>Duration : 60 minutes.</p>
NLHT 1.4	Identification and documentation of herbal medicines for umbilical cord infections.	<p>The teacher explains about the herbal medicines and the students understand the same through activities.</p> <p>Flipped classroom activity :</p> <p>Pre-class activity:</p> <p>The teacher assigns reading material on commonly used traditional herbal medicines for umbilical cord infections and guiding questions on the preparatory methods and scientific evidence supporting the efficacy of the medicines.</p> <p>In class activity :</p> <p>Group discussions :</p> <p>The students are divided into small groups to discuss the findings.</p> <p>Each group should discuss about the efficacy of commonly used herbal remedies for umbilical cord infections and how to apply it in patients.</p> <p>The students should record their findings.</p> <p>The teacher assess their participation and the findings and feedbacks.</p> <p>Duration :</p> <p>Group discussions : 30 minutes.</p>
NLHT 1.5	Resuscitation of distressed newborn.	<p>The teacher explains the steps of neonatal resuscitation in different scenarios to the students so that they can have a hands on realistic environment to practice critical skills .</p>

	<p>Game based learning :</p> <p>Neonatal resuscitation flow chart puzzle - Provide the students with a laminated scrambled version of neonatal resuscitation programme flowchart cards and ask them to arrange the steps in the correct order quickly.</p> <p>Duration : 20 minutes.</p> <p>Team based learning - Present the students a complex resuscitation case and make the students to decide the steps of resuscitation in order.</p> <p>Quiz programmes to reinforce knowledge of resuscitation steps.</p> <p>Duration : 20 minutes.</p> <p>Role playing using a mannequin or doll for practice.</p> <p>Duration : 20 minutes.</p>
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 1.1	Newborn history taking.	<p>The teacher describes how to carry out a detailed history taking including registering history of present illness, antenatal and birth history, feeding history, Immunization history and socioeconomic history in newborn.</p> <p>The students carry out the same under the guidance of the teacher.</p> <p>Follow the relevant preparatory steps.</p> <p>Ask about the chief complaints and duration.</p> <p>Ask about the antenatal history, birth history.</p> <p>Enquire about the feeding history.</p> <p>Enquire about the immunization history and socio - economic history.</p> <p>Summarize and document the findings in the case records.</p> <p>Duration : 30 minutes.</p>
NLHP 1.2	Assessment of physical growth.	<p>The teacher teaches how to measure the physical growth using appropriate tools and the students will perform the same in cases.</p>

		<p>Follow the common preparatory procedures.</p> <p>Procedure :</p> <p>Have all the measuring tools in hands.</p> <p>Measurement of weight using a weighing machine.</p> <p>Measurement of length using a infantometer.</p> <p>Measurement of chest circumference, head circumference and mid upper arm circumference using a measuring tape.</p> <p>Plot the measurements in growth charts and document the findings in record book.</p> <p>Duration : 30 minutes.</p>
NLHP 1.3	Assessment of vital signs.	<p>The teacher explains how to record the the vital signs in a newborn with the appropriate tools and then the students demonstrate the same in cases.</p> <p>Follow the common preparatory procedures.</p> <p>Procedures :</p> <p>Explain the mother about the clinical procedure.</p> <p>Record the temperature using a thermometer.</p> <p>Count the pulse rate.</p> <p>Count the respiratory rate and observe the chest movement.</p> <p>Record the blood pressure using a B.P apparatus with a pedeatric cuff.</p> <p>Document the vital signs.</p> <p>Duration : 30 minutes.</p>
NLHP 1.4	Systemwise examination of newborn.	<p>The teacher explains about the system wise examination of a newborn which includes observation, physical examination of the newborn from head to toe.</p> <p>The students are then made to demonstrate the same under the guidance of the teacher with the appropriate tools.</p> <p>Preparation :</p> <p>Follow the common preparatory procedures before starting the examination.</p> <p>Have a torch, stethoscope, reflex hammer, gloves, sanitizer.</p>

		<p>Procedure :</p> <p>Observe the general appearance of the child.</p> <p>Conduct Examination of the head.</p> <p>Conduct examination of neck and thorax.</p> <p>Conduct examination of cardio vascular system.</p> <p>Conduct examination of abdomen.</p> <p>Conduct musculo skeletal examination.</p> <p>Conduct neurological examination.</p> <p>Conduct genital and anal examination.</p> <p>Document the findings.</p> <p>Record the findings in the case records.</p> <p>Duration : 1 hour.</p>
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NLHP 1.5	Common preparatory procedures in clinical examination.	<p>The teacher explains about the preparatory procedures to be followed before performing the clinical examination and the students should follow the same in all systemic clinical examinations.</p> <p>Preparation for clinical examination :</p> <p>Create a comfortable and warm environment.</p> <p>Have all the well sanitized necessary tools on hands appropriate to the examination.</p> <p>Position the child correctly.</p> <p>Use a firm and flat surface.</p> <p>Introduce yourself and greet the child and mother in a friendly language.</p> <p>Explain all the procedures to the mother.</p> <p>Obtain verbal consent from the mother.</p> <p>Stand on the appropriate side of the patient.</p> <p>Duration : 30 minutes.</p>
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Topic 2 Pachilam Matrum Ilam Kuzhanthaigalin Unavu (Feeding in Infants and Young children) (LH :5 NLHT: 2 NLHP: 3)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
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CO1	Define and classify exclusive breast feeding, predominant breast feeding, partial breast feeding.	CK	MK	KH	L&PPT	T-OBT,PU Z,QZ	F&S		-	LH
CO1	Define colostrum.	CK	MK	K	L&GD	VV-Viva,O- QZ	F&S		-	LH
CO1	Define and differentiate transitional milk, mature milk, fore milk, hind milk .	CK	MK	K	L&PPT	CL-PR,QZ ,VV-Viva	F&S		-	LH
CO1	Define preterm milk.	CK	MK	K	L	INT,VV- Viva	F&S		-	LH
CO1	Review and recall the composition of breastmilk.	CC	MK	KH	L&PPT ,FC	M-CHT	F&S		-	LH
CO1	Enumerate the differences between breastmilk, cow's milk and milk formula.	CC	MK	K	FC,ML	DEB	F&S		-	LH
CO1	Discuss the advantages of breast milk.	CC	MK	KH	TBL,L &GD,F C	T-OBT,DE B,CR-RED, M-POS	F&S		-	LH
CO1	Describe the positions of breast feeding.	CC	MK	KH	FC,L	M-POS	F&S		-	LH
CO1	Explain the common conditions that affects breast feeding and its management.	CK	MK	K	FC,CBL ,L&PPT ,ML	PM,CR-RE D,M-POS,T- OBT,PRN	F&S		-	LH
CO1	Justify lactation failure and its types, causes and prevention.	CK	MK	K	L&GD	CBA,CL- PR	F&S		-	LH
CO1	Describe the indications for expressing breastmilk and steps of milk expression.	CK	MK	KH	L&PPT ,PBL	M-CHT,T- CS,CL-PR, C-VC,VV- Viva	F&S		-	LH

CO1	Characterize breast milk on the basis of physical configuration of mothers.	CK	DK	K	L&GD	VV-Viva	F		-	LH
CO1	Classify the frequency of feeding as per Siddha literatures.	CC	MK	KH	L	T-OBT,VV-Viva	F		V-NAVO	LH
CO1	Explain the psychological conditions of mother affecting breastfeeding as per Siddha concepts.	CC	DK	K	TBL	T-OBT,VV-Viva	F&S		V-NAVO	LH
CO1	Describe the health conditions and precautions advised in Siddha to be followed by mother during breastfeeding.	CC	MK	KH	LS,FC, TBL,L &GD	T-OBT,CL-PR,M-CHT ,VV-Viva	F&S		-	LH
CO1	Explain the dilution of cow's milk when used as alternative for breastmilk.	CC	DK	KH	L	VV-Viva	F&S		V-NAVO	LH
CO1	List the herbs and medicines to increase breast milk secretion.	CK	MK	K	L&GD	M-POS,T-OBT,CR-RED,CL-PR,M-CHT	F&S		V-GMM	LH
CO1	Define weaning and complementary feeding.	CK	MK	K	PrBL,L	M-POS,CR-RED	F&S		-	LH
CO1	Enumerate the attributes of an ideal complementary food.	CK	MK	K	L&GD	M-CHT	F&S		-	LH
CO1	List the common complementary foods to be given to infants.	CK	MK	K	BS,DIS	M-POS	F&S		-	NLHT2.1
CO1, CO6	Perform a detailed breast feeding history to assess the nutritional status of the child.	PSY-GUD	MK	SH	SIM	INT,Log book,RK,CHK	F&S		-	NLHP2.1
CO1, CO6	Conduct breast examination of the mother for common breast feeding complications.	PSY-GUD	MK	SH	CBL,PE R,PSM	P-VIVA,RK,Log book	F		-	NLHP2.2
CO1,	Formulate a management plan for enhancing lactation through	CS	MK	KH	PER,TP	RK,CL-	F&S		-	NLHT2.2

CO6	herbal medicines and external therapies.				W	PR,INT				
CO1, CO6	Develop a personalized weaning plan in infants.	CS	MK	SH	CBL,RP	Log book,RK	F&S		-	NLHP2.3
CO1, CO6	Discuss the nutritionally balanced complementary foods and the appropriate age of introducing them.	CC	MK	K	L&PPT ,GBL	VV-Viva,M -CHT,M-M OD,CHK,T- OBT	F&S		-	LH

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 2.1	Preparation of a list of common complementary foods.	<p>The teacher makes the students to identify, understand and prepare a list of complementary foods suitable for infants and the students create a list.</p> <p>Brainstorming session :</p> <p>The students are asked to share examples of complementary foods they know which have high nutritive value.</p> <p>Class presentation and discussions :</p> <p>Then the students should organize their findings into a chart or table with columns of food name, age of the child and nutritional benefits .</p> <p>They can also create posters or digital presentations with images of the foods</p> <p>Duration : 60 minutes.</p>
NLHT 2.2	Designing a lactation enhancement plan.	<p>The teacher encourage students to create and design management plans incorporating herbal medicines considering evidence based practices.</p> <p>Team project work :</p> <p>The students are assigned the list of common herbs used as internal and external to increase breastmilk secretion.</p> <p>They should identify the mechanism of action,efficacy of the herbs and based on this create a management plan that contains the type,dose and preparation of the medicine.</p>

	<p>Duration : 30 minutes.</p> <p>Presentations :</p> <p>Each group should present their plan to the class and highlight the rationale for chosen medicines.</p> <p>The findings are documented.</p> <p>Duration : 30 minutes.</p>
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 2.1	Breast feeding history taking.	<p>The teacher teaches the questions to be asked to perform a detailed breast feeding history and the students perform the examination.</p> <p>Simulation :</p> <p>Use a volunteer to simulate.</p> <p>The students are divided into groups.</p> <p>Each group should ask questions about the feeding frequency,duration,breast preference,milk supply,baby's behaviour and latch and about supplementary feeds.</p> <p>The students document the gathered information and can create a checklist.</p> <p>Duration : 60 minutes.</p>
NLHP 2.2	Breast examination	<p>The teacher explains how to conduct breast examination for common breast feeding complications and the students should demonstrate the same.</p> <p>Case based learning :</p> <p>The teacher provides detailed case studies of breast feeding complications like mother with mastitis,nipple trauma and pain,and engorgement.</p> <p>The students should analyze the case , identify the problem and explain the steps like visual inspection, gentle palpation of breasts and lymph nodes.</p> <p>The students should document their findings.</p> <p>Duration : 60 minutes.</p>

NLHP 2.3	Development of weaning plan.	<p>The teacher teaches about the concept of weaning and how to educate the mothers and develop a personalized weaning plan in infants.</p> <p>Case based learning : Provide the students with a detailed case study of infants of different age groups from 6 months to 1 year.</p> <p>Students have to create a weekly weaning chart including types of foods, feeding schedule, quantity of food to be given considering real life challenges.</p> <p>Duration : 30 minutes.</p> <p>Roleplays : Students explain their plans by roleplays as mother and physician . They have to document their ideas.</p> <p>Duration : 30 minutes.</p>
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Topic 3 Vaccine Preventable diseases (Immunization) (LH :5 NLHT: 3 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO1	Classify immunization, vaccination, vaccines and cold chain.	CK	MK	K	ML,L&PPT	QZ ,VV-Viva,T-OBT	F&S		-	LH
CO1	Distinguish active and passive immunization.	CK	MK	K	L&PPT	VV-Viva	F&S		-	LH
CO1	Appraise and differentiate the national immunization schedule including IAP schedule and explain the methods of storage of vaccines (cold chain).	CC	MK	K	L	VV-Viva,M-CHT	F&S		-	LH
CO1	Describe the contents, dose, route, site, age of administration, adverse reactions of bacillus calmette - guerin (BCG), polio vaccine (OPV), diptheria, tetanus, pertussis vaccine (DTP).	CC	MK	KH	L&PPT	T-OBT,VV-Viva	F&S		-	LH
CO1	Describe the contents ,dose, route and site,age of administration, adverse reactions of haemophilus influenza vaccine (Hib),	CC	MK	KH	L&PPT	T-OBT,VV-Viva,PUZ	F&S		-	LH

	pneumococcal conjugate vaccine (PCV).									
CO1	Describe the contents, dose, route and site,age of administration, adverse reactions of rotavirus vaccine.	CK	MK	KH	L&PPT	QZ ,VV-Viva	F&S		-	LH
CO1	Describe the contents, dose, route and site,age of administration, adverse reactions of measles, mumps, rubella vaccine (MMR) .	CK	MK	KH	L&PPT	WP,VV-Viva	F&S		-	LH
CO1	Describe the contents, dose, route, site,age of administration, adverse reactions of Hepatitis A,B vaccine .	CK	MK	KH	L&GD	PUZ,T-OB T,VV-Viva	F&S		-	LH
CO1	Describe the contents, dose, route, site, age of administration, adverse reactions of typhoid vaccine.	CK	MK	KH	L&PPT	QZ ,VV-Viva,T-OB T	F&S		-	LH
CO1	Describe the contents, dose, route, site, age of administration, adverse reactions of japanese encephalitis vaccine .	CK	MK	KH	L&PPT	O-QZ,S-LAQ	F&S		-	LH
CO1	Interpret combination vaccine.	CC	MK	KH	L&PPT	T-OB T,CL-PR,PUZ,SA	F&S		-	LH
CO1	Name the vaccines to be administered in pregnancy.	CK	MK	K	L	VV-Viva,P UZ,INT,CL-PR,T-OB T	F&S		-	LH
CO1	Identify the principles of immunization in Siddha (<i>Kaappu</i>) that enhance the immunity in children.	PSY-GUD	DK	SH	PER,FC	QZ ,CL-PR	F		-	NLHT3.1
CO1	Summarize the preparation of <i>Urai mathirai and Sei Nei</i> .	CC	MK	KH	DIS,L	M-POS,M-CH T	F&S		-	LH
CO1	Evaluate the immunization records of children to check if they are immunized correctly upto the age.	CE	MK	KH	TBL	P-EXAM,Log book,VV-Viva,RK,P-VIVA	F&S		-	NLHP3.1

CO1	Document the detailed immunization history of the child upto the age.	CAP	MK	KH	TBL	P-EXAM,P-VIVA,Log book,RK	F&S		-	NLHP3.2
CO1	Explain the role of traditional practices like oil bath,tying <i>Vasambu kappu</i> , yellow twine and <i>Kulisam</i> in the hands of children to strengthen immunity.	CC	DK	SH	TBL,PE R	M-POS,CL-PR,CR-RED,RK	F		-	NLHT3.2
CO1	Prepare and administer <i>Urai mathirai</i> and <i>Sei nei</i> to children in outpatient (OP) and inpatient (IP) departments.	PSY-GUD	MK	KH	PT,TBL	Log book,P-VIVA,M-CHT,P-REC,RK	F&S		-	NLHP3.3
CO1	Integrate Siddha principles with modern immunization principles to develop strategies to enhance immunity.	CAP	MK	KH	TBL,M L,PER	CR-W,Log book,RK	F		-	NLHT3.3
CO1, CO7	Conduct counselling to create awareness about Siddha principles of immunization among school children and public.	AFT-VAL	MK	KH	RP,TBL	Log book,P-RP,RK	F&S		-	NLHP3.4

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 3.1	Identificatio of Siddha immunization priciples.	<p>The teacher explains the fundamentals of Siddha Immunization Principles and make the students to present their ideas .</p> <p>Flipped classroom :</p> <p>Pre - classroom activity :</p> <p>The students are assigned with reading resources like books, watching videos on Siddha principles of immunity.</p> <p>They should be guided to focus on key principles of Siddha immunity like role of <i>Uyirthathukkal</i> ,seasonal regimens and herbs in immunity.</p> <p>In class activity:</p> <p>Conduct quiz to assess the understanding of students.</p> <p>The students deliver seminars to present their findings to the class.</p>

		Students should write a short notes on their understanding. Duration : 60 minutes
NLHT 3.2	Traditional practices to strengthen immunity.	The teacher helps students to explore and critically evaluate the traditional practises that increase immunity in children . Team based learning : The students are divided into teams and each team is assigned topics on different traditional practices. The students should refer different resources like books and digital materials . Presentations : The students deliver seminars and explain the concepts, mechanism and efficacy of the practices to the class. The students can create posters on the topic. Duration : 60 minutes.
NLHT 3.3	Integration of Siddha and modern principles of immunization.	The teacher encourages students to read journals and integrate Siddha principles with modern immunization methods. Team based learning and group discussions : The teacher divides the class into small groups and assign each group with differnt topics like natural immuno modulators, principles of Siddha immunology and modern immunization principles. The students research their assigned topic using books, internet, articles. The students prepare and present their brief summary and suggestions for integration. Duration: 60 minutes.
Non Lecture Hour Practical		
S.No	Name of Practical	Description of Practical Activity
NLHP 3.1	Evaluation of immunization records.	The teacher teaches how to evaluate the immunization records of the child and check if immunization is done upto the age .

		<p>Team based learning :</p> <p>Follow the preparatory methods.</p> <p>Procedures :</p> <p>Enquire about the age of the child.</p> <p>Verify Patient details.</p> <p>Check the Immunization record for missing doses according to the recommended schedule.</p> <p>Check if the vaccines are administered at the correct age.</p> <p>Duration : 30 minutes.</p>
NLHP 3.2	Documentation of immunization history.	<p>The teacher teaches how to document the immunization history in case records and the students do the same.</p> <p>Preparation :</p> <p>Create a comfortable environment.</p> <p>Use a pediatric friendly language.</p> <p>Introduce and create a good rapport with the mother.</p> <p>Procedure :</p> <p>Enquire about the age of the child.</p> <p>Check the the schedule of vaccinations given up to the age of the child.</p> <p>Enquire about any adverse reactions after any vaccination in the child.</p> <p>Document the records.</p> <p>Maintain a case record to document the findings .</p> <p>Duration : 30 minutes.</p>
NLHP 3.3	Administration of <i>Urai mathirai</i> and <i>Sei nei</i> .	<p>The teacher explains the preparation of the drugs <i>Urai mathirai</i> and <i>Sei nei</i> and the students prepare the drugs and administer them to the patients and document the findings.</p> <p>Team based learning :</p> <p>Step 1 : Make the students to study the preparation and collect the raw drugs.</p> <p>Step 2. : Make the students to prepare and store the drugs <i>Urai Mathirai</i> and <i>Sei nei</i> following all safety and sterile measures .</p>

		<p>Step 3 : Make them to administer the drugs to infants in OP and IP departments.</p> <p>Step 4 : Educate the parents about its therapeutic significance.</p> <p>Step 5 : Document the findings and feedbacks from mothers.</p> <p>Duration : 30 minutes.</p>
NLHP 3.4	Counselling on Siddha immunization principles.	<p>The teacher teaches students how to conduct counsellings to create awareness about Siddha principles of immunization among school children and public</p> <p>Team based learning and Roleplay :</p> <p>Divide the class into small groups.</p> <p>Assign roles as Siddha expert,public member .</p> <p>They act focusing on importance of immune principles of Siddha and their benefits and educating the parents.</p> <p>Then the feedbacks are recorded .</p> <p>Duration : 30 minutes.</p>

Topic 4 Kuzhanthaigalin Iyalpana Udal Matrum Thiran Valarchi Nilaigal(Normal growth and development in children) (LH :6 NLHT: 4 NLHP: 10)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO2	Define growth and development.	CK	MK	K	L&PPT	QZ ,PUZ	F&S		-	LH
CO2	Explain the principles and laws of growth.	CC	NK	KH	L&PPT	INT	F&S		-	LH
CO2	Differentiate between growth and development and factors influencing growth and development.	CC	MK	K	L	INT,O-QZ	F&S		-	LH
CO2	Elaborate the stages of fetal growth as per the text <i>Agathiyar Vaithya Vallathi</i> 800.	CC	DK	K	DIS,PE R,LS	VV-Viva,C L-PR	F		H-SMM	NLHT4.1
CO2	Compare the concept of <i>Paruvangal</i> in male and female children with modern developmental milestones.	CS	NK	SH	BL,GB L,PER, TBL	INT	F		-	NLHT4.2

CO2	Explain the methods of assessing physical growth – height, weight, head circumference , chest circumference, mid arm circumference, US:LS ratio, arm span, body mass index and eruption of teeth.	CC	MK	KH	L&PPT ,L_VC	VV-Viva	F&S		-	LH
CO2	Define developmental milestones.	CK	MK	KH	L,L_VC	VV-Viva	F&S		-	LH
CO2	Describe the gross motor and fine motor milestones.	CC	MK	KH	L_VC	CHK,INT	F&S		-	LH
CO2	State the social and adaptive developmental milestones.	CC	MK	KH	L_VC	CHK,CL-PR	F&S		-	LH
CO2	Explain the language developmental milestones.	CC	MK	KH	L_VC	CHK,QZ	F&S		-	LH
CO2	Interpret the special domains of vision and hearing.	CC	MK	KH	L_VC	CL-PR,CHK	F&S		-	LH
CO2	Explain the theories on developmental stages by John Piaget.	CC	NK	KH	L	CL-PR	F		-	LH
CO2	Describe the steps to assess the developmental milestones in children.	CC	MK	SH	GBL,RP	WP,INT	F&S		-	NLHT4.3
CO2, CO6	Perform the assessment of physical growth including height, weight, head circumference, chest circumference, upper mid arm circumference, arm span, upper segment / lower segment ratio (US/LS ratio) and vital signs in children with developmental delays.	PSY-GUD	MK	SH	CBL,D-BED	Mini-CEX, RK,OSPE, Log book,CHK	F&S		-	NLHP4.1
CO6	List the tools used for physical assessment.	CK	MK	K	L&PPT ,FC	M-MOD,Log book,VV-Viva,O-QZ,M-CHT	F&S		-	LH

CO2, CO6	Organize a comprehensive gross motor developmental assessment in children.	PSY-GUD	MK	SH	CBL,D-BED	DOAP,Log book,CHK, P-EXAM,P-VIVA	F&S		-	NLHP4.2
CO2, CO6	Conduct a comprehensive fine motor developmental assessment in children.	PSY-GUD	MK	SH	D-BED, CBL	Log book,C HK,Mini-CEX,P-EXAM,P-VIVA	F&S		-	NLHP4.3
CO2, CO6	Conduct a comprehensive language developmental assessment in children.	PSY-GUD	MK	SH	D-BED, CBL	P-EXAM,RK,P-VIVA,Log book,CHK	F&S		-	NLHP4.4
CO2, CO6	Conduct a comprehensive social and emotional developmental assessment.	PSY-GUD	MK	SH	D-BED, CBL	Mini-CEX, RK,Log book,P-CASE ,DOPS	F&S		-	NLHP4.5
CO2, CO6	Explain developmental screening tests.	CK	MK	K	TBL,L &PPT	VV-Viva	F&S		-	LH
CO2, CO6	Explain the methods to identify and understand the long term outcomes of developmental delays.	CC	MK	SH	CBL,RP ,D-BED	Log book,INT,CL-PR,RK	F&S		-	NLHT4.4

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 4.1	Description of fetal growth as per literature.	The teacher make the students to read the literatures in library on the fetal stages including <i>Agathiyar vaidhya vallathi</i> book , have group discussions and to corelate with scientific literatures.

		<p>Library Session :</p> <p>The students are divided into groups and each group gathers information using the library resources.They use the catalogs and indexes to locate the resources and take notes.</p> <p>Group discussions :</p> <p>The groups share their findings through brief presentations.</p> <p>Duration : 60 minutes.</p>
NLHT 4.2	Comparison of <i>Paruvangal</i> of children with developmental milestones.	<p>The teacher explains about the concept of <i>Paruvangal</i> in male and female children and comparing them with the modern developmental milestones</p> <p>Blended learning :</p> <p>The students are divided into two groups .</p> <p>Assign each group a specific domain of development. One group researches on Siddha concepts and other on modern concepts using digital resources and texts.</p> <p>The groups present their comparison findings to the class.</p> <p>Duration : 30 minutes.</p> <p>Game based learning :</p> <p>Create flashcards with descriptions of developmental milestones and the corresponding <i>Paruvangal</i> of male and female children.</p> <p>The students are divided into groups and they match the cards.</p> <p>Points are awarded for correct matches.</p> <p>Duration : 30 minutes.</p>
NLHT 4.3	Assessment of developmental milestones.	<p>The teacher teaches the students how to focus on active learning,group work in assessing developmental milestones for better understanding and performance in clinical set up.</p> <p>The students are divided into groups and made to perform the tasks.</p> <p>Role plays - Use role cards,case scenarios.</p> <p>Create cards with all developmental milestones written in it and give it to students.</p> <p>The students are presented with case scenarios with developmental delays and the students should mark the relevant card containing the milestone.</p>

		<p>Find out which team finishes all cards first. Duration : 30 minutes. Toy based assessment - Provide with blocks,balls and ask the students to simulate testing of gross motor skills Interactive games - Create milestones cards and match them with age Duration : 30 minutes.</p>
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NLHT 4.4	<p>Identification and understanding of long term outcomes of developmental delays.</p>	<p>The teacher explains how to identify the long term outcomes of developmental delays. The students follow the instructions and perform the steps. Roleplays : The students are assigned the roles of a child, parent and physician. They act by asking relevant questions which focuses on a complete antenatal history, birth history and the present complaints and duration. They also focus on the developmental delays as noticed by parents. They discuss the identified delay and outline long term strategies like external therapies. The students document their performance. Duration : 30 minutes. Case based learning : The students are given case studies of children with developmental delay The students discuss about the clinical features and investigations in the given cases. The students share their ideas of possible long term outcome of that child. The students record the findings. Duration: 30 minutes.</p>
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 4.1	Assessment of physical growth and vital signs.	The teacher teaches how to record the physical growth and vital signs in children with developmental

		<p>delays and the students perform the same in cases. Case based learning and demonstration on bed side: Follow the preparatory steps. Procedures : Have all the measuring tools in hands. Perform the measurement of weight. Perform the measurement of Length. Perform the measurement of Head circumference. Perform the measurement of chest circumference. Perform the measurement of mid upper arm circumference. Perform the measurement of arm span. Perform the measurement of US/LS ratio. Record and plot the measurements in growth charts. Record the vital signs - Temperature,pulse rate,respiratory rate,blood pressure using the appropriate tools. Record the findings. Duration : 2 hours.</p>
NLHP 4.2	Assessment of gross motor developmental milestones.	<p>The teacher explains how to assess the gross motor developmental milestones and the students perform a comprehensive gross motor developmental assessment under the guidance of the teacher. Case based learning and demonstration on bed side : Follow the preparatory methods. Procedures : Understand the gross motor developmental milestones. Review the child's medical and developmental history. Observe the child for its posture,spontaneous activities,engagement with parents. Use the structured gross motor assessment questionnaires and screening tools according to the age of the child and test for core motor skills. Employ checklists.</p>

		<p>Have targeted discussions with the parents. Identify the red flags and explain to the parents. Document the findings. Duration : 2 hours.</p>
NLHP 4.3	Assessment of fine motor developmental milestones.	<p>The teacher teaches how to assess fine motor developmental milestones and the students conduct a comprehensive fine motor developmental assessment under the guidance of the teacher. Case based learning and Demonstration on bed side : Follow the preparatory methods. Procedures : Understand the fine motor developmental milestones. Review the child's medical and developmental history. Observe the child for its spontaneous activities and hand dominance and check for hand strength and dexterity. Use the structured questionnaires and screening tools according to the age of the child. Employ checklists. Have targeted discussions with the parents. Identify the red flags and explain to the parents. Document the findings in case records. Duration : 2 hours.</p>
NLHP 4.4	Assessment of language developmental milestones.	<p>The teacher explains how to elicit the language developmental milestones and the students perform the comprehensive language developmental assessment. Case based learning and Demonstration on bed side : Follow the preparatory methods. Procedures : Understand the language developmental milestones. Review the child's medical and developmental history. Observe the child for its spontaneous speech.</p>

		<p>Use the structured language screening tests according to the age of the child and also hearing assessment .</p> <p>Employ checklists.</p> <p>Have targeted discussions with the parents.</p> <p>Identify the red flags and explain to the parents.</p> <p>Document the findings in case records.</p> <p>Duration: 2 hours.</p>
NLHP 4.5	Assessment of social and emotional developmental milestones.	<p>The teacher explains how to assess the social and emotional developmental mile stones and the students perform the same under the guidance of the teacher</p> <p>Case based learning and demonstration on bed side.:</p> <p>Follow the preparatory methods.</p> <p>Procedures :</p> <p>Understand the social and developmental milestones.</p> <p>Review the child's medical and developmental history.</p> <p>Observe the child for its interaction with others and note the behaviours.</p> <p>Use the structured questionnaires and screening tools.</p> <p>Employ checklists.</p> <p>Have targeted discussions with the parents.</p> <p>Identify the red flags and explain to the parents.</p> <p>Document the findings in case records.</p> <p>Duration: 2 hours.</p>

Topic 5 Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children) (LH :5 NLHT: 4 NLHP: 12)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO2	Define the disorder of growth.	CK	MK	K	L&PPT	VV- Viva,WP	F&S		-	LH

CO2	List the types of growth disorders.	CK	MK	K	L&PPT	QZ	F&S		-	LH
CO2	Define short stature.	CK	MK	K	L&PPT	PUZ,QZ	F&S		-	LH
CO2	Describe the causes, types, clinical features, investigations and diagnosis along with bone age assessment and management of short stature through internal and external therapies.	CC	MK	KH	L&PPT	CBA,QZ ,WP	F&S		-	LH
CO2	Define failure to thrive.	CK	MK	K	L&PPT	WP	F&S		-	LH
CO2	Describe the causes, types, clinical features, investigation, diagnosis and management of failure to thrive in children.	CC	MK	KH	L,CBL, L&GD	CWS ,O- QZ	F&S		-	LH
CO2	Define craniosynostosis and describe the etiopathogenesis classification, clinical features, diagnosis and complication of craniosynostosis – Scaphocephaly, Acrocephaly, Plagiocephaly, Trigonoccephaly.	CC	DK	K	L&PPT	O-QZ,INT, WP	F&S		-	LH
CO2	Differentiate microcephaly and macrocephaly with causes, clinical features, diagnosis and management.	CC	MK	SH	L&PPT	VV- Viva,QZ	F&S		-	LH
CO2, CO6	Demonstrate the importance of anthropometric measurement in a child with growth disorders.	PSY- GUD	MK	SH	RP,CBL	P- RP,RK,Log book	F&S		-	NLHT5.1
CO2, CO6	Perform the examination to assess short stature through detailed history taking, physical and general examination, clinical examination.	PSY- GUD	MK	SH	X-Ray, CBL,LR I,D- BED	P-EXAM,R K,P- VIVA,Log book,P- CASE	F&S		-	NLHP5.1
CO2, CO6	Discuss the investigations for growth disorders .	CK	MK	KH	SIM	OSCE,VV- Viva	F&S		-	NLHT5.2
CO2,	Discuss the Siddha aspects like <i>Yakkai ilakkanam</i> , derangements	PSY-	MK	SH	GBL	RK,QZ	F&S		-	NLHT5.3

CO6	in <i>Mukkutram</i> and <i>Udalkattukal</i> in children with growth disorders.	GUD				,Log book,PUZ				
CO2, CO6	Perform the examination to assess failure to thrive through detailed history taking, physical and general examination, clinical examination.	PSY-GUD	MK	SH	CBL,D-BED,LRI	DOPS,P-EXAM,P-VIVA,RK,Log book	F&S		-	NLHP5.2
CO2, CO6	Discuss the concept of <i>Ennvagai thervu</i> , <i>Neerkuri</i> , <i>Neikuri</i> to evaluate the patient for short stature and failure to thrive.	PSY-GUD	MK	SH	GBL,PE R,CBL	PRN,RK,Log book	F&S		-	NLHT5.4
CO2, CO6	Create a management plan including internal medicines, dietary advices, lifestyle modifications and demonstrating external therapies for the child with growth disorders.	CS	MK	KH	D-BED, CBL	P-VIVA,RK,P-EXAM,Log book	F&S		-	NLHP5.3

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 5.1	Significance of physical growth in growth disorders.	<p>The teacher explains the significance of physical growth in growth disorders and the students understand and apply the same in clinical setups.</p> <p>Simulation and roleplay :</p> <p>The teacher divides the students into groups.</p> <p>Assign the roles as doctors, patients, family members.</p> <p>The students act their roles by measuring the physical growth explaining to parents and present the class their findings.</p> <p>Duration : 30 minutes.</p> <p>Case based learning :</p> <p>The teacher divide the students into two groups.</p> <p>One group is provided the case studies of children with growth disorders and they have to present the scenario based on physical growth findings to the other group.</p> <p>The other group should diagnose the type of growth disorder.</p>

		Duration: 30 minutes.
NLHT 5.2	Interpretation of lab investigations.	<p>The teacher explains about the laboratory investigations and the students actively engage with the diagnostic methods to assess the disorders.</p> <p>Simulation :</p> <p>The teacher divide the students into groups and create lab stimulation stations.</p> <p>Students move between different stations mimicking a lab test to investigate growth disorders.</p> <p>Stations :</p> <p>Hormone level analysis - Provide students with simulated blood test results showing hormone levels.</p> <p>Genetic screening - Provide the students with genetic test results.</p> <p>Imaging studies - Provide the students with simulated x-rays,MRI images .</p> <p>Physical examination - Provide the students with simulated physical growth measurements.</p> <p>Students on visiting each station note the findings.</p> <p>After visiting all stations the groups discuss their findings and hypothesize the type of growth disorder.</p> <p>Each group write down a report on their findings.</p> <p>Duration : 60 minutes.</p>
NLHT 5.3	Discussion on Siddha diagnostic principles.	<p>The teacher explains about the derangements in Siddha parameters .The students assess them and understand the derangements in growth disorders and able to perform them in clinical setup.</p> <p>Game based learning :</p> <p>Create flashcards with Siddha parameters like <i>Yakkai</i> of the patient,<i>Uyir thathukkal</i>, <i>Udalkatukkal</i> on one side and symptoms due to derangement of the parameters on the other side.</p> <p>The students should match the cards correctly.</p> <p>Quiz:</p> <p>Create quiz programmes with questions based on symptoms and the possible derangements .</p> <p>This helps students to understand the principles and apply them clinically.</p> <p>Duration : 60 minutes.</p>

NLHT 5.4	Discussion on <i>Envagai thervu</i> and <i>Neerkuri, Neikuri</i> .	<p>The teacher teaches how to conduct <i>Ennvagai thervu, Neerkuri, Neikuri</i> to evaluate the patient for short stature and failure to thrive.</p> <p>Case based learning and presentations :</p> <p>The students are given case scenarios of children with growth disorders.</p> <p>They have to discuss the methods of <i>Envagai thervu</i> and <i>Neerkuri</i> and <i>Neikuri</i>.</p> <p>The students present the findings for that particular case.</p> <p>Duration : 30 minutes.</p> <p>Game based learning :</p> <p>Conduct quiz on the findings of siddha parameters and the appropriate growth disorders.</p> <p>Duration : 30 minutes.</p>
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 5.1	Clinical examination of short stature.	<p>The teacher teaches how to perform the examination to assess short stature through detailed history taking, general examination and clinical examination. The students perform the same under the guidance of teacher and individually.</p> <p>Case based learning and demonstration on bed side :</p> <p>Follow the preparatory methods.</p> <p>Prepare the patient for the clinical procedure.</p> <p>Record the presenting complaints through a detailed history taking including family history and dietic history.</p> <p>Assess the height and weight of the child.</p> <p>Perform the clinical examination.</p> <p>Calculate the deficit in height from the normal measures.</p> <p>Assess for hormonal disorders from laboratory investigation.</p> <p>Assess bone age from x-ray interpretation.</p> <p>Document the findings in case records.</p> <p>Duration : 5 hours.</p>

NLHP 5.2	Clinical examination of failure to thrive.	<p>The teacher teaches how to perform the examination to assess failure to thrive through detailed history taking, physical and general examination, clinical examination. The students perform the same.</p> <p>Follow the preparatory methods.</p> <p>Prepare the patient for the clinical procedure.</p> <p>Record the presenting complaints through a detailed history taking including family history and dietetic history.</p> <p>Assess the height and weight of the child.</p> <p>Perform the clinical examination.</p> <p>Calculate the deficit in weight from the normal measures.</p> <p>Assess for hormonal disorders from laboratory Investigation.</p> <p>Document the findings in case records.</p> <p>Duration : 5 hours.</p>
NLHP 5.3	Management plan for growth disorders.	<p>The teacher explains about the internal medicines, dietary advices, lifestyle modifications and how to perform the external therapies to create a management plan and the students follow the same. in cases.</p> <p>Case based learning and demonstration on bed side :</p> <p>The students first perform the detailed clinical examination.</p> <p>On the basis of the observed findings create a management plan with appropriate internal medicines.</p> <p>The students do the appropriate external therapies.</p> <p>The students explain the dietary advices and lifestyle modifications.</p> <p>Document the findings in case records.</p> <p>Duration : 2 hours.</p>

Topic 6 Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) (LH :7 NLHT: 4 NLHP: 14)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO2	Define development delay in children.	CK	MK	K	L,PBL	PUZ,QZ	F&S		-	LH
CO2	Describe the causes for development delay in modern and Siddha	CC	MK	KH	L,PrBL	CL-PR,QZ	F		-	LH

	aspect as per the text <i>Tirumanthiram</i> .									
CO2, CO4	Describe the definition,classification,causes and risk factors of <i>Sirasthambavatham</i> (cerebral palsy) clinical features, diagnostic criteria, assessment tools, complications and management with internal and external therapies.	CC	MK	KH	CD,LRI ,BS,CB L,D- BED	DOPS,T- CS, C-VC, Mini-CEX, M-POS	F&S		-	LH
CO2	Discuss the Changes in <i>Mukuttram, Nadi nadai, Neer kuri</i> and <i>Nei kuri</i> in children with cerebral palsy.	CC	MK	KH	D-BED, CBL	DOAP,DO PS,T-CS,V V- Viva,CBA	F&S		-	LH
CO2	Define <i>Moolai thiran kurai</i> (mental retardation) its classification , evaluation, causes and diagnosis.	CC	NK	K	L&PPT	WP,M- POS,O-QZ	F&S		-	LH
CO2, CO4	Define autism its causes, clinical features ,diagnostic criteria and management with internal and external therapies.	CC	MK	KH	LRI,PB L,CBL, D-BED, L&PPT	CR-RED, C -VC,DOPS, OSCE,CL- PR	F&S		-	LH
CO2, CO4	Describe attention deficit hyper activity disorder (ADHD), causes, clinical features, diagnostic criteria ,management with internal and external therapies.	CC	MK	KH	PER,D- BED,C BL,L&P PT	CR-RED,D OPS,VV-Vi va,T- CS,CWS	F&S		-	LH
CO2	Explain the motor speech disorder dysarthria in children.	CK	MK	K	L&GD	OSPE	F&S		-	LH
CO2	Define the characteristics of childhood apraxia of speech.	CK	MK	K	L&GD	C-VC,SP	F&S		-	LH
CO2	Define the characteristics of speech sound disorder.	CK	DK	K	L&PPT	VV-Viva	F&S		-	LH
CO2	Define the characteristics of childhood onset fluency disorder.	CK	DK	K	L&PPT	PUZ,CL- PR	F&S		-	LH
CO2	Define the characteristics of selective mutism.	CK	DK	K	L&PPT	WP,QZ	F&S		-	LH

CO2	Define stuttering, stammering, cluttering in children.	CK	NK	K	L&GD	WP,O-QZ	F&S		-	LH
CO2	Explain the traditional play toys <i>Oonjal</i> , <i>Mara kuthirai</i> and their impacts in the development of children.	CC	DK	KH	PrBL,G BL	M-MOD,C L-PR	F		-	NLHT6.1
CO2	Explain the uses of feeding tools like <i>Sangu</i> , <i>Paaladai</i> in children.	CAP	DK	KH	PER,Pr BL,DIS	PRN,M- MOD	F		-	NLHT6.2
CO2	Explain the sleeping methods like <i>Thottil</i> and its impact in the development in children.	CAP	DK	K	L&PPT	O-GAME	F&S		-	LH
CO2, CO6	Discuss the significance of anthropometric measurement in children with development disorders.	CK	DK	K	D-BED, L,CBL	CBA,VV- Viva	F		-	LH
CO2, CO6	Perform the examination to diagnose cerebral palsy through detailed history taking, physical and general examination, clinical examination.and neurological examination and frame a management plan.	PSY- GUD	MK	SH	D-BED, CBL	P-EXAM,D OPS,P-VIV A,DOPS	F&S		-	NLHP6.1
CO2, CO6	Conduct <i>Ennvagai thervu</i> , <i>Neerkuri</i> , <i>Neikuri</i> to evaluate the patient for developmental delay.	PSY- GUD	MK	SH	CBL,D- BED	P-VIVA,P- EXAM,DO PS,DOPS	F&S		-	NLHP6.2
CO2, CO6	Perform the clinical examination procedures in diagnosing children with autism and attention deficit hyperactivity disorder and plan a management plan.	PSY- GUD	MK	SH	D-BED	P-EXAM,D OPS,P-VIV A,DOPS,C HK	F&S		-	NLHP6.3
CO2, CO6	Discuss the influence of food in children with development delays.	CC	MK	SH	TBL,DI S,LS,PE R	CL-PR	F&S		-	NLHT6.3
CO2, CO6	Explain the need for referral to rehabilitation centres.	CK	MK	K	L	VV-Viva	F&S		-	LH

Non Lecture Hour Theory		
S.No	Name of Activity	Description of Theory Activity
NLHT 6.1	Significance of traditional toys .	<p>The teacher explains the influence of traditional toys in the development of children and the students apply the concepts in clinical and real life experiences.</p> <p>Game based learning :</p> <p>The students are divided into groups .</p> <p>Ask them to share their experiences in using these toys.</p> <p>Provide the students with the pictures of toys and make them write down the skills that develop in using the toys .</p> <p>Duration : 30 minutes.</p> <p>Project based learning :</p> <p>Assign each group with a toy and ask them to create miniature models of the toys .</p> <p>Make them to do presentations on their findings.</p> <p>Duration: 30 minutes.</p>
NLHT 6.2	Significance of feeding tools .	<p>The teacher explains about the feeding tools like <i>Sangu</i>, <i>Paladai</i> and their uses and the students apply their ideas in enhancing the uses of these tools.</p> <p>Group discussions :</p> <p>The students are assigned topics on feeding tools .They have to gather informations on the usage of tools from ancient literatures and present their findings as seminars to the class.</p> <p>Discussions can be on the advantages and disadvantages of traditional tools compared to modern feeding tools</p> <p>Duration : 30 minutes.</p> <p>Creativity skills - Students design and present their own modernized version of traditional tools</p> <p>Duration : 30 minutes.</p>
NLHT 6.3	Influence of food in developmental delays.	<p>The teacher explains the role of food in children with developmental delays and the students understand the same and apply in developing dietary plans.</p>

		<p>Team based learning :</p> <p>The students are given case studies of children with developmental disorders and their dietary history. They have to identify the deficiency and link the respective food to cause the deficiency.</p> <p>Duration : 1 hour.</p> <p>Class presentations :</p> <p>The students are given topics related to common deficiencies in children with developmental disorders .</p> <p>The students should give their presentations to the class on the foods that cure the deficiencies.</p> <p>Duration : 1 hour.</p>
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 6.1	Clinical examination of cerebral palsy.	<p>The teacher explains how to perform clinical examination procedures and the students perform the same under the guidance in bed side cases.</p> <p>Follow the preparatory methods.</p> <p>Procedures :</p> <p>Step 1. Record a detailed antenatal history, birth history, neonatal history and register the presenting complaints and duration.</p> <p>Step 2. Ask about the past history, family history, social history, dietary history, Immunization history .</p> <p>Step 3. Conduct a general examination.</p> <p>Step 4. Record the vital signs and anthropometric measurements.</p> <p>Step 5. Assess the development mile stone, gross motor, fine motor, language- social and emotional milestones.</p> <p>Step 6. Conduct a general and neurological examination.</p> <p>Step 7. Interpret the lab findings,imaging reports.</p> <p>Step 8. Interpret the results of developmental screening tests.</p> <p>Step 9. Using the above assessment look for any deviation and record the observations.</p> <p>Step 10. Based on the findings frame a management plan.</p>

		<p>Step 11. Document the findings in case records. Duration: 6 hours.</p>
NLHP 6.2	Assessment of <i>Envagai thervu</i> , <i>Neerkuri</i> and <i>Neikuri</i> .	<p>The teacher teaches how to assess <i>Ennvagai thervu</i>, <i>Neerkuri</i>, <i>Neikuri</i> in patient with developmental delay and the students perform the same. Follow the preparatory methods. Procedures : Prepare the child for the examination. Perform the tests to elicit <i>Envagai thervu</i>. Collect the urine and conduct <i>Neikuri</i>. Document the observed findings. Duration : 2 hours.</p>
NLHP 6.3	Clinical examination and framing a management plan of autistic spectrum disorders.	<p>The teacher explains how to perform the clinical examination procedures and the students demonstrate the procedures under guidance of teacher in patients in In patient and out patient department. Follow the preparatory methods. Procedures : Follow the steps 1 to 7 in diagnosing the child with Cerebral Palsy. Step 8. Make the students to become familiar with the rating scale questionnaires. Step 9. Make them to evaluate the questionnaire. Step 10. Document the feedbacks. Step 11. Based on the assessments plan a management plan and counselling session and advice for rehabilitation therapies. Duration : 6 hours.</p>

Topic 7 Kuzhanthaigalin Nadathai Kuraipadugal (Behavioural problems in children) (LH :2 NLHT: 1 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3

CO2	Definition and types of behavioural problems in children.	CK	MK	K	L&GD	PUZ,QZ	F&S		-	LH
CO2	Explain the causes ,clinical features, complication of thumb sucking, nail biting, pica in children and its management.	CC	MK	KH	L&GD	CL-PR,QZ	F&S		-	LH
CO2	Describe the causes, clinical features, classification, complications of temper tantrum in children and its management.	CC	MK	KH	L_VC,L &GD	C-VC,CR-RED	F&S		-	LH
CO2	Describe causes, clinical features, classification, complication of breath holding spells in children and its management.	CC	MK	KH	L&GD	QZ ,PUZ	F&S		-	LH
CO2	Describe the causes and clinical features of eating disorders in children and its management.	CC	MK	KH	L&GD	VV-Viva	F&S		-	LH
CO2	Explain the role of parents in children with behaviour and developmental problems.	CAP	NK	KH	L&GD	VV-Viva	F&S		-	LH
CO2, CO6	Demonstrate the anthropometric measurement and record the vital signs of a child with behaviour problem.	PSY-GUD	MK	SH	CBL,D	P-VIVA,P-EXAM	F&S		-	NLHP7.1
CO2, CO6	Perform a detailed history taking, general examination and clinical examination in a child with behavioural problems and frame a management plan.	PSY-GUD	MK	SH	D-BED, CBL	P-EXAM,P-VIVA,DO PS,Mini-CEX,DOPS	F&S		-	NLHP7.2
CO2, CO6	Conduct a thorough behavioural assessment by observing the child.	PSY-GUD	MK	SH	CBL,D-BED	P-VIVA,CHK,P-EXAM,DOAP, Mini-CEX	F&S		-	NLHP7.3
CO2, CO6	Observe, record and interpret the questionnaires for assessing behavioural problems.	CE	MK	SH	TBL,PE R	RK,P-VIVA,P-EXAM,Log book,CR-RED	F&S		-	NLHP7.4

CO2, CO6, CO7	Conduct a counselling for the parents of the child with behavioural problem.	PSY- GUD	MK	KH	D,RP,D IS	SBA,P-RP, M- CHT,INT	F&S		-	NLHT7.1
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Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 7.1	Counselling to parents.	<p>The teacher explains about the importance of counselling and students perform the same and get trained to do counselings in real life experiences.</p> <p>Roleplay and discussions :</p> <p>Task students with designing short sessions for parents on topics like positive reinforcement. Students should be divided into groups and made to simulate a real world setting where they offer support to parents.</p> <p>Set up mock counseling sessions where students work with volunteer parents dealing with a specific behavioural issue in their children.</p> <p>Make students to create handouts or guides for managing common behavioural problems.</p> <p>The students present their discussions to the class.</p> <p>Duration : 1 hour.</p>

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 7.1	Assessment of physical growth and vital signs .	<p>The teacher explains how to do the anthropometric measurement and record the vital signs and the students perform the same.</p> <p>Follow the preparatory steps.</p> <p>Prepare the child for the clinical procedure.</p> <p>Identify tools used for including stadiometer, weighing scale inch type, skin calipers, thermometer, B.P apparatus.</p> <p>Assess the height, weight, chest circumference, head circumference, mid upper arm circumference, US:LS ratio.</p>

		<p>Record the vital signs with appropriate tools. Document the recordings. Duration : 30 minutes</p>
NLHP 7.2	Clinical examination of behavioural problems.	<p>The teacher explains how to perform a general and clinical examination in diagnosing a child with behavioural problems and the students perform the same. Case based learning : Follow the preparatory steps. The students record the details of the patient and parents. Record a detailed history of presenting complaints. Interrogate about the family history, social and sibling history. Conduct a general examination. Perform a clinical examination. Based on the findings frame a management plan. Document the findings. Duration : 30 minutes.</p>
NLHP 7.3	Assessment of behaviour problems.	<p>The teacher describes how to assess a child with behavioural problems and the students demonstrate it under guidance. Case based learning : The teacher make the students to observe a patient in real setting or video of a child with behavioural problem and ask them to note specific behaviours paying attention to frequency, duration and context. The students discuss the observations. The students understand behaviour triggers. The students are made to perform the same in real case scenarios and document the results in case records. Duration: 30 minutes.</p>

NLHP 7.4	Interpretation of questionnaires for behaviour problems.	<p>The teacher teaches how to interpret and document questionnaires for assessing children with behavioural problems. The students understand and perform the same in clinical departments.</p> <p>Case based learning :</p> <p>Team based learning :</p> <p>The teacher make the students familiar with the questionnaire structure.</p> <p>The teacher make the students to create simple questionnaire on their own.</p> <p>The teacher divide the students into small groups and make them to administer their questionnaire among themselves and to collect feedback.</p> <p>The teacher make the students to document mock responses from their questionnaire.</p> <p>Duration: 30 minutes.</p>
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Topic 8 Pathin Paruvam (Adolescence) (LH :3 NLHT: 2 NLHP: 3)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO2	Define adolescence and stages of adolescence and explain the sexual maturity rating of Tanner.	CK	MK	K	L&PPT	VV-Viva	F&S		-	LH
CO2	List the 3 phases of adolescence in modern and as per tamil literatures.	CK	MK	K	L&PPT	VV-Viva	F&S		-	LH
CO2	Explain the three phases of adolescence based on somatic development, cognitive and social development.	CC	DK	K	L&PPT	VV-Viva,C R-RED	F&S		-	LH
CO2	List out the common health problems in adolescents and its management.	CC	MK	K	FC,L&P PT	INT,O-QZ	F&S		-	LH
CO2	Discuss the impact of iron deficiency anaemia in adolescents and its management.	CC	MK	KH	TBL,L &PPT	CL-PR	F&S		-	LH
CO2	Describe the eating disorders anorexia nervosa and bulimia nervosa in adolescents and its management .	CK	NK	K	CBL	VV-Viva	F&S		-	LH
CO2	Discuss the common infections including sexually transmitted	CK	DK	K	L&GD	INT	F&S		-	LH

	diseases in male and female adolescents and its management.									
CO2	Enumerate the psychological problems in adolescence and its management.	CC	MK	KH	L&PPT	DEB,QZ ,CR-RED	F&S		-	LH
CO2	Explain the hormonal changes in adolescence.	CK	NK	K	DIS	VV-Viva	F&S		-	LH
CO2	Describe juvenile delinquency.	CK	NK	K	CD	VV-Viva	F&S		-	LH
CO2, CO6	Discuss the problems related to health, peer pressure, mental health concerns, substance abuse in adolescents.	PSY- GUD	MK	SH	BS,RP	INT,SP,DE B	F		-	NLHT8.1
CO2, CO6	Perform a detailed history taking, general examination and clinical examination in adolescents.	PSY- GUD	MK	SH	CBL,D- BED	DOPS,P-E XAM,DOP S,P-VIVA	F&S		-	NLHP8.1
CO2, CO6	Observe the nutritional status and psychological status of adolescents and note for any deviations.	CS	MK	KH	CBL,TB L,PER	CL-PR,M- POS	F&S		-	NLHT8.2
CO2, CO6	Formulate a line of treatment with internal medicines, dietary plan and a psychological counselling in adolescents.	PSY- GUD	MK	KH	CBL,D- BED	P-EXAM,P -VIVA,DO PS,DOPS	F&S		-	NLHP8.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 8.1	Assessment of psychological status of adolescents.	<p>The teacher explains how to understand and assess the psychological problems of adolescents.</p> <p>Brainstorming sessions :</p> <p>Make the students to list out the social pressures, peer pressures, mood swings and present it to the class.</p> <p>Duration : 30 minutes</p> <p>Debates :</p> <p>The class is divided into 2 groups. The teacher acts as the moderator.</p> <p>They are assigned the topic on the psychological problems faced by the adolescents and its cause.</p>

		<p>One group debates as adolescents and the other group debates against them. The moderator finalizes the solution. Document the solutions for the problem. Duration : 30 minutes</p>
NLHT 8.2	Assessment of nutritional status.	<p>The teacher teaches how to observe the nutritional status in all adolescent children and to find the nutritional deficiencies and associated clinical features and the students understand and should be able to do the same in clinical departments. Case based learning and presentations : Divide the class into groups. Provide each group with case studies highlighting common nutritional disorders in adolescents such as under nutrition, over nutrition, eating disorders, micronutrient disorders. Make the students use resources for gathering information regarding their assigned case scenario. Each group study the causes, symptoms, impacts and creates a visual presentation of their findings. Duration : 60 minutes.</p>

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 8.1	Clinical examination of adolescents.	<p>The teacher explains how to examine the adolescents and perform a detailed history taking, general examination, clinical examination related to their ailments and students perform the same under guidance of the teacher. Follow the preparatory steps. Prepare the patient for the clinical procedure. Perform a detailed history taking and register the complaints and duration and a detailed general and clinical examination. Assess the pubertal development. Assess the nutritional status, dietic history and eating habits in patients. Enquire the menstrual history in girls .</p>

		<p>Enquire the peer pressures and relationship with parents.</p> <p>Assess the mental status.</p> <p>Document the findings in case records.</p> <p>Duration : 90 minutes.</p>
NLHP 8.2	Management plan for adolescent problems.	<p>The teacher teaches how to carry out a psychological counselling and formulate a line of treatment with internal medicines, dietary plan and students perform the same under the guidance of the teacher.</p> <p>Follow the preparatory procedures.</p> <p>Interact with the adolescent children and gather a detailed history on their presenting complaints.</p> <p>Conduct a thorough clinical examination ..</p> <p>On the basis of the observed data create a management plan with appropriate internal medicines and external therapies if needed.</p> <p>Tell the dietary advices.</p> <p>Advice about the lifestyle modifications.</p> <p>Counsel the parents of adolescents regarding their problems.</p> <p>Document the findings and monitor the prognosis in further follow ups.</p> <p>Duration : 90 minutes.</p>

Topic 9 Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) (LH :6 NLHT: 5 NLHP: 9)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO1	Define the term energy requirement in children.	CK	MK	K	L&GD	VV-Viva	F&S		-	LH
CO1	Define the terms nutrition, malnutrition, macronutrients and micronutrients.	CK	MK	K	L&GD	PUZ, VV-Viva, QZ	F&S		-	LH
CO1	Enumerate the normal macronutrient requirements in children.	CK	MK	K	FC	QZ, M-CHT, PUZ	F&S		-	LH

CO1	Demonstrate the assessment of nutritional status in children.	CK	MK	K	L_VC	CL-PR	F&S		-	LH
CO1	Define protein energy malnutrition (PEM).	CK	MK	K	L&GD	VV-Viva	F&S		-	LH
CO1	Define kwashiorkor, marasmus,marasmic kwashiorkor.	CK	MK	K	L&GD	QZ ,PUZ,CL- PR	F&S		-	LH
CO1	Describe the prevalence, classification, pathogenesis, clinical features, complications, evaluation, management and prevention of protein energy malnutrition.	CC	MK	KH	PER,CD	CL-PR,PU Z,QZ	F&S		-	LH
CO1	List the classification of vitamins and write the dietary sources of vitamins A,D,E,K,B,C	CK	MK	K	IBL	PUZ,QZ ,CL-PR	F&S		-	LH
CO1	List the recommended daily allowance of vitamins A,D,E,K,B,C.	CK	MK	K	L&PPT	PUZ,M-CH T,M-MOD	F&S		-	LH
CO1	Explain the clinical features, evaluation and management and prevention of deficiency of vitamin A.	CK	MK	K	L&GD	CL-PR,PU Z,QZ	F&S		-	LH
CO1	Explain the WHO classification of xerophthalmia and hypervitaminosis A	CC	MK	KH	FC	M- MOD,QZ ,PUZ	F&S		-	LH
CO1, CO5	Explain the clinical features, diagnosis, management and prevention of vitamin D deficiency - rickets	CC	MK	KH	PBL,IB L	QZ ,CR- RED,PUZ	F&S		-	LH
CO1	Describe non - nutritional rickets.	CK	MK	K	L	PUZ	F&S		-	LH
CO1	Enumerate the clinical features, of deficiency of vitamin E and vitamin K.	CK	MK	K	L&PPT	VV-Viva	F&S		-	LH
CO1, CO5	Describe the clinical features, evaluation and management of thiamine, riboflavin, niacin, pyridoxine, pantothenic acid, cobalamin ,folic acid deficiency.	CC	MK	KH	L&PPT	WP,O-QZ, O-GAME, VV-Viva	F&S		-	LH

CO1, CO5	Describe the clinical features ,evaluation and management of deficiency of vitamin c (scurvy).	CC	MK	KH	L&PPT ,L&GD	O-QZ,O- GAME,WP	F&S		-	LH
CO1	List the common trace elements required in children.	CK	NK	K	L&PPT	M-POS,M- CHT	F&S		-	LH
CO1	Describe the dietary sources, symptoms and prevention of zinc, copper, iodine deficiency in children.	CC	MK	KH	L&PPT	WP,CL- PR,O-QZ	F&S		-	LH
CO1	Describe the dietary sources, symptoms and prevention of selenium ,chromium and fluoride deficiency.	CK	NK	K	L&PPT	WP,M- POS,O-QZ	F&S		-	LH
CO1	Define <i>Paandu</i> , <i>Sobai</i> and explain the causes,types, <i>Kurikunangal</i> , <i>Theerum theera nilai</i> and <i>Maruthuvam</i> .	CC	MK	K	L	T-OBT	F&S		-	LH
CO1	Describe anemia in terms of definition,its classification,causes,clinical features and management.	CC	MK	K	L&PPT	VV-Viva,T -CS,T- OBT,O-QZ	F&S		-	LH
CO1	Explain <i>athithoolarogam</i> (obesity) and the role of <i>pancha bootham</i> ,three humors and role of tastes in developing obesity and its management.	CC	MK	K	L&GD, L&PPT	CR-RED,C L-PR,T- OBT,O-QZ	F&S		-	LH
CO1	Discuss the caloric value of the common Indian foods.	CC	DK	SH	BS,GBL ,TPW	M-POS,M- MOD,M- CHT,QZ ,PUZ	F&S		-	NLHT9.1
CO1, CO6	Discuss the significance of anthropometric measurement in children with nutritional disorders.	PSY- GUD	MK	SH	SIM,CB L,RP	SP,CL- PR,Log book,RK	F&S		-	NLHT9.2
CO1, CO6	Perform a detailed history taking, general examination, clinical examination to diagnose nutritional deficiencies in children.	PSY- GUD	MK	SH	LRI,D- BED,C BL	CBA,P-EX AM,Mini- CEX,Log	F&S		-	NLHP9.1

						book,RK				
CO1, CO6	Observe the clinical signs to differentiate between kwashiorkor and marasmus and vitamin deficiencies.	PSY- SET	MK	SH	CBL,D- BED	OSCE,RK, P-EXAM,P- VIVA,Log book	F&S		-	NLHP9.2
CO1, CO6	Calculate the daily requirement of micronutrients and macronutrients according to age.	PSY- SET	MK	KH	GBL,T BL	CBA,Log b ook,O-QZ, O-GAME	F&S		-	NLHT9.3
CO1, CO6	Discuss the examination in Siddha aspects like <i>Yakkai ilakkanam</i> , derangements in <i>Mukkutram</i> and <i>Udalkattukal</i> and <i>Envagaithervu</i> , <i>Neerkuri</i> , <i>Neikuri</i> in nutritional disorders.	PSY- GUD	MK	SH	GBL	Log book,R K,QZ	F&S		-	NLHT9.4
CO1, CO6	Frame the management plan including internal medicines,external medicines and dietary advices in children with nutritional deficiencies.	PSY- GUD	MK	SH	CBL,D- BED	P- EXAM,Log book,DOA P,P- VIVA,RK	F&S		-	NLHP9.3
CO1	Describe the pathophysiology, clinical evaluation, laboratory investigations and management of Sick cell anemia in children.	CC	NK	KH	L&PPT	VV-Viva,T- OBT	F		-	LH
CO1	Describe iron deficiency anemia in terms of definition,pathophysiology,clinical features,laboratory investigations and management.	CC	MK	KH	L&PPT	M-POS,VV -Viva,M-C HT,T- OBT,INT	F&S		-	LH
CO1	Describe megaloblastic anemia in terms of definition, pathophysiology, etiology, clinical features, laboratory investigations and management.	CC	MK	KH	L&PPT	VV-Viva,M- POS	F&S		-	LH
CO1	Describe the causes, clinical features and management of hemophilia.	CK	NK	K	L&PPT	VV-Viva	F&S		-	LH

Non Lecture Hour Theory		
S.No	Name of Activity	Description of Theory Activity
NLHT 9.1	Caloric value of Indian foods.	<p>The teacher explains about the caloric value of Indian foods and the students should understand the concept so that they can give good dietary advice to the patients.</p> <p>Brainstorming sessions :</p> <p>The students are divided into groups and provide them a list of common Indian foods and ask each group to list out the caloric value of each food using reliable sources like ICMR.</p> <p>Duration : 40 minutes.</p> <p>Making models :</p> <p>Make the students to create models ,charts, posters listing the caloric value of common Indian foods.</p> <p>Duration : 40 minutes.</p> <p>Game based learning :</p> <p>Create a quiz to test the student's knowledge of the caloric value of foods.</p> <p>Create a matching game where students match Indian food items with their corresponding caloric values.</p> <p>Duration : 40 minutes.</p>
NLHT 9.2	Significance of physical growth in nutritional disorders.	<p>The teacher explains the significance of physical growth in nutritional disorders and the students understand and apply the same in clinical setups.</p> <p>Simulation and roleplay :</p> <p>The teacher divides the students into groups.</p> <p>Assign the roles as doctors, patients, family members.</p> <p>The students act their roles and present the class their findings.</p> <p>Case based learning :</p> <p>The teacher divide the students into two groups.</p> <p>One group is provided the case studies of children with nutritional disorders and they have to present the scenario based on physical growth findings to the other group.</p> <p>The other group should diagnose the type of nutritional disorder.</p>

		Duration: 60 minutes
NLHT 9.3	Calculation of daily nutrient requirements in children.	<p>The teacher teaches how to calculate the daily requirement of micronutrients and macronutrients according to age using standard equations.</p> <p>Team based learning :</p> <p>Divide students into groups.</p> <p>Assign each group the dietary guidelines, health websites depicting the daily requirements according to age.</p> <p>Provide cases with different age groups to each group.</p> <p>Make the students to calculate energy, protein, fluid requirements for their assigned cases.</p> <p>The students present their findings briefly to the class.</p> <p>Duration : 30 minutes.</p> <p>Game based learning :</p> <p>Make the students to develop a card game and plan a sample food diary for an individual of a specific age.</p> <p>Create an online quiz that tests student's ability to calculate nutritional requirement for children.</p> <p>Duration : 30 minutes.</p>
NLHT 9.4	Discussion on Siddha diagnostic principles.	<p>The teacher explains about the derangements in Siddha parameters .The students assess them and understand the derangements in nutritional disorders and able to perform them in clinical setup.</p> <p>Game based learning :</p> <p>Create flashcards with Siddha parameters like <i>Yakkai</i> of the patient, <i>Uyir thathukkal</i>, <i>Udalkatukkal</i> on one side and symptoms due to derangement of the parameters on the other side.</p> <p>The students should match the cards correctly.</p> <p>Quiz:</p> <p>Create quiz programmes with questions based on symptoms and the possible derangements .</p> <p>This helps students to understand the principles and apply them clinically.</p> <p>Duration : 60 minutes.</p>

Non Lecture Hour Practical		
S.No	Name of Practical	Description of Practical Activity
NLHP 9.1	Clinical examination in nutritional disorders.	<p>The teacher explains how to perform the clinical procedures in a child with nutritional deficiency and then the students demonstrate it under guidance.</p> <p>Follow the preparatory methods.</p> <p>Procedure:</p> <p>Perform a detailed history taking including presenting complaints and duration with dietary history.</p> <p>Observe and do the physical examinations focused on signs of nutritional deficiencies.</p> <p>Perform a detailed clinical examination involving inspection, palpation, percussion and auscultation of all systems.</p> <p>Document the findings.</p> <p>Duration : 4 hours.</p>
NLHP 9.2	Clinical differentiation of nutritional disorders	<p>The teacher explains the clinical signs to differentiate between kwashiorkor and marasmus and vitamin deficiencies in children so that the students understand and apply them correctly to arrive at the diagnosis.</p> <p>Follow the preparatory procedures.</p> <p>Observe the child.</p> <p>Note for edema, hair changes, skin lesions, distended abdomen, irritability and apathy, weight loss to rule out kwashiorkor.</p> <p>Observe the child for severe wasting, growth retardation, absence of edema, thin dry skin, weakness and lethargy to rule out marasmus.</p> <p>Observe the child for specific vitamin deficiencies.</p> <p>Discuss the findings and arrive the diagnosis.</p> <p>Document the findings in the case records.</p> <p>Duration : 4 hours.</p>
NLHP 9.3	Management plan for nutritional disorders.	The teacher guides the students how to frame the appropriate management plan including internal

medicines, external medicines and dietary advices after assessing the nutritional deficiency and the students perform the same in patients.
 After diagnosing the nutritional deficiency,
 On the basis of the observed datas create a management plan with appropriate Internal medicines and external therapies if needed.
 Provide nutrient supplements to specific deficiencies.
 Provide dietary counselling to the child and caregivers.
 Recommend food fortification.
 Advice about the lifestyle modifications.
 Schedule regular follow-up appointments and monitor and document the child's progress.
 Duration : 1 hour.

Topic 10 National Health Programmes related to Children (LH :2 NLHT: 1 NLHP: 2)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO1	Describe the primary objective of Integrated Child Development Services Scheme (ICDS).	CK	DK	K	L&PPT ,L&GD	M-POS,M- CHT	F&S		-	LH
CO1	Describe the components of ICDS.	CK	DK	K	L&PPT ,PrBL	INT	F&S		-	LH
CO1	Explain the role of anganwadi workers in ICDS.	CK	DK	K	L&PPT	M-CHT,M- POS	F&S		-	LH
CO1	Discuss the primary objectives of National Rural Health Mission (NRHM).	CK	NK	K	L&PPT	M-CHT,V V-Viva	F&S		-	LH
CO1	Enumerate the key components of NRHM and role of ASHA workers under NRHM.	CK	DK	KH	L&PPT	VV-Viva	F&S		-	LH
CO1	Describe the benefits of mid-day meal programme.	CK	NK	K	L&PPT	VV-Viva	F&S		-	LH

CO1	Discuss the primary objectives of the National Nutritional Anaemia Prophylaxis Programme (NNAPP).	CK	MK	K	L&PPT	M-CHT,M-POS	F&S		-	LH
CO1	Conduct screening camps to assess the health status of children in schools.	PSY-GUD	DK	SH	DIS,SI M,W,T BL	RK,SP,Log book,INT	F		-	NLHT10.1
CO1	Conduct awareness programme to educate about the national programmes in college campus and nearest health centre.	PSY-GUD	DK	SH	DIS,TP W	M-CHT,M-POS,INT	F		-	NLHP10.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 10.1	Arrangement of screening camps in schools.	<p>The teacher explains how to organize and conduct school health screening camps as part of national health programmes. The students will learn the processes and trained to conduct camps in real life scenarios.</p> <p>Simulation :</p> <p>The teacher assign roles to students as organizers, participants, health professionals and assistants. Make the students to prepare posters and pamphlets about the screening and its importance priorly. Set up stations in the classroom for different screening activities like vision test, weight and height measurement, anemia awareness.</p> <p>The students play the roles assigned to them.</p> <p>After the simulation discuss the challenges faced during the activity and ways to improve the organizing methods and document them.</p> <p>Duration : 1 hour.</p>

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 10.1	Arrangement of awareness programmes in college campus .	The teacher explains how to organize awareness programmes regarding national health programmes in college campus and health centres.

	<p>Arrange a visit to the nearest health centre or community clinic.</p> <p>Make the students to design campaign to raise awareness for a specific health programme.</p> <p>Conduct vaccination drives, nutritional supplementation programmes.</p> <p>Create posters, social media posts, leaflets to promote the importance of the programme.</p> <p>Conduct similar programmes in college campus for patients visiting the hospital.</p> <p>Document the activities and feedbacks from the camps.</p> <p>Duration : 2 hour.</p>
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Paper 2 (KUZHANTHAI MARUTHUVAM (PEDIATRICS) - PAPER II)										
A3 Course outcome	B3 Learning Objective (At the end of the session, the students should be able to)	C3 Domain/sub	D3 MK / DK / NK	E3 Level	F3 T-L method	G3 Assessment	H3 Assessment Type	I3 Term	J3 Integration	K3 Type
Topic 11 Seerana Uruppu Mandala Noigal (Gastro intestinal disorders) (LH :8 NLHT: 4 NLHP: 13)										
A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO3, CO5, CO6	Describe the causes,clinical features,investigations and management of <i>Paleeru noi</i> (Gingivitis) .	CC	MK	KH	L&PPT	QZ ,VV- Viva	F&S		-	LH
CO3, CO5, CO6	Discuss causes,clinical features,investigations and management of <i>Seriyaappaduvan</i> (angular stomatitis) .	CK	MK	KH	L&PPT	VV- Viva,QZ	F&S		-	LH
CO3, CO5, CO6	Describe the <i>Iyal, Vagaigal.NoI varum vazhi,Kurikunangal and Maruthuvam of Akkaram</i> .	CC	MK	KH	DIS,L& PPT	QZ ,VV- Viva	F&S		-	LH

CO3, CO5, CO6	Describe the <i>Iyal, Noi varum vazhi, Vagaigal, Kurikunangal and Maruthuvam of Vaanathi, Vikkal, Seriyaamai.</i>	CK	MK	K	L&PPT	T-CS,QZ ,VV-Viva	F&S		-	LH
CO3, CO5, CO6	Discuss about the <i>Iyal, Noi varum vazhi, Vayathu, Vagaigal, Kurikunangal, and Maruthuvam of Mantham.</i>	CC	MK	KH	BS,L&P PT ,TBL	INT,T-OBT ,PP-Practic al,CL-PR,V V-Viva	F&S		-	LH
CO3, CO5, CO6	Discuss the definition,causes,clinical features,diagnosis and management of lactose intolerance, malabsorption syndrome.	CK	MK	K	L&PPT ,TBL,L _VC,BS	O-QZ,VV- Viva,QZ	F&S		-	LH
CO3, CO5, CO6, CO7	Demonstrate counselling with empathy and understanding for parenting challenges in lactose intolerance and malabsorption syndrome with appropriate dietary management.	PSY- GUD	MK	SH	RP	P-RP	F&S		-	NLHT11.1
CO5, CO6	Describe the etiology, common signs and symptoms and management of <i>Kazhichal (Diarrhoea), Seetha Kazhichal (Dysentery).</i>	CC	MK	KH	L&PPT	VV- Viva,QZ ,PUZ	F&S		-	LH
CO5, CO6	Describe the etiology, classification,clinical features,investigations of diarrhoea and dysentery.	CK	MK	K	L&PPT	VV-Viva,C L-PR,QZ	F&S		-	LH
CO5, CO6	Discuss the treatment and dietary management of diarrhoea and dysentery.	CC	MK	KH	PBL,L& PPT	PUZ,QZ	F&S		-	LH
CO5, CO6	Demonstrate the clinical signs and symptoms of dehydration and its management with oral rehydration solution (ORS).	CAP	MK	KH	GBL,DI S,PBL	INT,QZ ,VV-Viva	F		-	NLHT11.2
CO5	Examination of the patient through detailed history taking, general examination, vital signs, anthropometry, clinical examination, <i>Udal thathukkal, Ennvagai thervu, Mukkutram,</i> differential diagnosis, diagnosis and frame the line of treatment of	PSY- GUD	MK	SH	CBL,D- BED	VV-Viva,P- EXAM,OS CE,P- VIVA	F&S		-	NLHP11.1

	<i>Kazhichal.</i>									
CO1, CO5	Examination of the patient through history taking, general examination, vital signs, anthropometry, clinical examination, <i>Udal thathukkal, Ennvagai thervu, Mukkutram</i> , differential diagnosis, diagnosis and prescribe the line of treatment of <i>Akkaram</i> .	PSY- GUD	MK	SH	DIS,CB L,D- BED,PT	P-PRF,P-E XAM,DOP S,VV-Viva, P-CASE	F&S		-	NLHP11.2
CO5, CO6	Identify and correlate the warning signs and symptoms of various gastrointestinal disorders and the need for referral.	CAP	MK	KH	GBL	QZ	F		-	NLHT11.3
CO5, CO6	Illustrate the approach to pediatric accidental poisoning and the immediate supportive therapy in poisoning.	PSY- GUD	NK	KH	RP,D-M	PUZ,VV- Viva,QZ	F		-	NLHT11.4

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 11.1	Demonstration of counselling for parents .	The teacher explains about the challenges faced by the parents of children with lactose intolerance and malabsorption syndrome and the students conduct effective counsellings to overcome the problem. Role play : Assign roles to students as parent, child and observer. Make them to roleplay the conversation on symptoms and explaining the parents and child about the foods causing the problem and create a dietary management plan . Focus the problem with empathy and positivity. Duration:1 hour.
NLHT 11.2	Preparation of ORS solution.	The students are taught about the signs and symptoms of dehydration and about oral rehydration solution (ORS) and demonstrate the preparation of ORS. Interactions : The students are divided into groups and made to discuss the possible causes, symptoms of dehydration. ORS preparation activity : Provide the students with clean water, sugar, salt ,measuring spoons and cups and pre - packed ORS

		<p>sachets for comparison. Make them to prepare ORS themselves. Create Quiz about ORS Preparation. Duration: 1 hour.</p>
NLHT 11.3	<p>Identification of warning signs of gastro intestinal disorders.</p>	<p>The teacher explains the warning signs and symptoms of various gastrointestinal disorders and the conditions to refer the child. The students understand the concept so that they know the conditions to refer the child.</p> <p>Game based Learning :</p> <p>Make the students understand about warning signs and symptoms of the digestive system by self learning and Peer learning prior to the game.</p> <p>Materials needed :</p> <p>The materials used in the game titled “Gut Game” consist of a board with picture of digestive system, a rules sheet, question cards and square pieces to represent teams. The question cards has printed questions on one side while the other has a picture and the name of the respective organ.</p> <p>Procedure :</p> <p>The organs can be numerically represented (like snake and ladder).The entrance organs can be mouth represented with a number 1 followed by the other organs.</p> <p>The questions used during the game can represent warning signs and symptoms on the digestive system topics.</p> <p>Students can be divided as teams and each team would be allowed to toss the dice and the square piece of respected team is moved to the respective organs based on the number on the dice. A question card representing the organ is chosen and the questions are asked to the team.</p> <p>Question cards contain multiple-answer questions about warning signs of the system (mouth/esophagus, stomach, liver/gallbladder, pancreas, small intestine, and large intestine) .</p> <p>The team which successfully answers all the questions related with warning signs and symptoms of all organs and completes the finish line wins the game.</p> <p>Duration: 60 minutes. (Refer sample Gut Game -https://doi.org/10.6084/m9.figshare.12250043)</p>

NLHT 11.4	Management of pediatric accidental poisoning.	<p>The teacher explains how to manage pediatric accidental poisoning cases and the immediate supportive therapy in poisoning and the students understand and perform the same under guidance.</p> <p>Role play :</p> <p>Divide the students into small groups and provide each group with case scenario like ingestion of household cleaners, medications.</p> <p>Assign roles within each group as caregiver, child, emergency responder and make them to act out their assigned roles .</p> <p>Duration : 30 minutes.</p> <p>Hands on demonstration for basic supportive therapy :</p> <p>Use a doll or mannequins for practice.</p> <p>Provide properties like toy phones, gloves and basic first aid supplies.</p> <p>Focus on safe positioning of the child, simulated CPR ,using activated charcoal and learn to communicate with poison control services.</p> <p>Quiz :</p> <p>Conduct a short quiz on the symptoms to watch for substances which cause poisoning steps in supportive therapy.</p> <p>Duration : 30 minutes.</p>
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 11.1	Clinical examination to evaluate a child with kazhichal.	<p>The teacher teaches how to perform the clinical examination to evaluate a child with <i>Kazhichal</i> and the student performs the examination.</p> <p>Follow the preparatory methods.</p> <p>Observe the patient data, complaints and duration ,present history, previous history, personal history, family history, habit, immunisation history.</p> <p>Record the dietary history and travelling history.</p> <p>Perform the general examination and record the vital signs, anthropometry, <i>Udal thathukkal</i>, <i>Ennvagai thervu</i> and assess the derangement in <i>Mukkutram</i>.</p>

		<p>Perform the clinical examination : Inspection,palpation,percussion and auscultation. Evaluate the datas and derive the differential diagnosis and diagnosis. Based on the findings formulae the line of treatment. Duration : 7 hours.</p>
NLHP 11.2	Clinical examination to assess <i>akkaram</i> .	<p>The teacher explains how to perform the clinical examination to diagnose <i>Akkaram</i> and the students perform the same in patients. Follow the preparatory steps before starting the clinical examination as in Paper 1. Observe the patient data, complaints and duration, present history, previous history, personal history, family history, habit, immunisation history. Perform general examination and assess vital signs, anthropometry, clinical examination.<i>Udal thathukkal, Ennvagai thervu</i> and assess the derangement in <i>Mukkutram</i>. Based on the findings derive the differential diagnosis and diagnosis. Formulae the line of treatment. Document the findings in case records. Duration : 6 hours.</p>

Topic 12 Suvaasa Noikal (Respiratory Disorders) (LH :6 NLHT: 4 NLHP: 12)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO5, CO6	Describe the <i>Iyal, Noi varum vazhi, Pothu kurigunangal, Vagaigal and Maruthuvam of Kanam</i> .	CC	MK	KH	L&PPT	INT,T-OBT ,VV-Viva	F&S		-	LH
CO5, CO6	Conduct a detailed history taking, general examination. clinical examination, investigations, Siddha diagnostic methods ,to evaluate respiratory disorders in children with differential diagnosis and frame a management plan with internal and external medicines.	PSY-GUD	MK	SH	D-BED, DIS,CB L	P-VIVA,INT, DOPS, V V-Viva,P-EXAM	F&S		-	NLHP12.1
CO5,	Enumerate the definition, etiology,pathophysiology,	CC	MK	KH	CBL,PB	M-CHT,V	F&S		-	LH

CO6	clinical features, investigations, diagnosis and management of <i>Mel suvasa pathai noigal</i> (Upper respiratory tract Infections -URTI) - rhinitis (common cold), <i>Mookadiyan azharchi</i> (Adenoiditis), <i>Kural valai azharchi</i> - Acute pharyngitis, laryngitis, tonsillitis, epiglottitis .				L,L&PP T ,LRI, X-Ray	V-Viva,QZ ,T-CS,T- OBT				
CO5, CO6	Identify and diagnose the upper respiratory infections using laboratory investigations , x-ray findings.	PSY- GUD	DK	KH	LRI,CB L,X-Ra y,DIS,C D	INT	F		-	NLHT12.1
CO5, CO6	List the common <i>Keezh suvasa pathai noigal</i> (Lower respiratory tract Infections) in children and state the definition, etiology, clinical features, investigations, diagnosis and management of <i>Suvasa thotru</i> (Croup), <i>Moochu kuzhal azharchi</i> (Bronchiolitis) , Bronchial Asthma (<i>Iraippu irumal</i>), and status asthmaticus .	CC	MK	KH	PBL,TB L,X-Ra y,L&PP T ,LRI	M-POS,CR -RED,CL-P R,T-OBT, M-MOD	F&S		-	LH
CO5, CO6	Describe the etiology,types,pathophysiology, clinical features, investigations,diagnosis and management of <i>Nuraieral kaatru pai thotru</i> (Pneumonia).	CC	MK	KH	TBL,C D,X-Ra y,L&PP T	T-CS,CL-P R,O-QZ,V V-Viva	F&S		-	LH
CO5, CO6	Discuss on the x-ray identification and laboratory interpretations for the diagnosis of <i>Nuraieral kaatru pai thotru</i> (Pneumonia).	PSY- GUD	DK	SH	X-Ray, CD,LRI ,CBL	QZ ,VV- Viva,T-CS	F		-	NLHT12.2
CO5, CO6	State the definition ,etiology, pathophysiology,clinical features, investigations,diagnosis and management of <i>Muthanmai kasa noi</i> (Primary complex) .	CC	MK	KH	BS,X-R ay,CD,L &PPT ,CBL	CWS ,QZ ,T-OBT, C- VC,VV- Viva	F&S		-	LH
CO5,	Discuss on the x-ray identification and laboratory interpretations	CAP	DK	SH	X-Ray,	C-VC,O-	F		-	NLHT12.3

CO6	of Mantoux test for the diagnosis of <i>Muthanmai kasa noi</i> (Primary complex) .				CBL,LR I,CD,DI S	QZ				
CO5, CO6	State the definition ,etiology, pathophysiology, clinical features, investigations,diagnosis and management of <i>Swasa mu??al Noi</i> - Acute respiratory distress syndrome. (ARDS)	CK	NK	K	LRI,DIS ,L&PPT	PUZ,QZ , C- VC	F&S		-	LH
CO5, CO6	Discuss the emergency management in the following cases - drowning, choking, foreign body aspiration and Heimlich maneuver.	PSY- GUD	NK	SH	SIM,D	QZ ,PRN,P UZ,SP	F		-	NLHT12.4

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 12.1	Laboratory intepretations of upper respiratory infections.	The teacher teaches how to observe and identify common upper respiratory tract infections using x-rays and lab investigations.The students will perform the identification. Case based learning : The students are divided into small groups. Each group is provided with x-ray films and lab reports of selected cases with respiratory infections. They are asked to find out the normal and abnormal findings . The findings are documented and discussed. Duration:1 hour.
NLHT 12.2	Laboratory and imaging intepretation of <i>Nuraieral kaatru pai thotru</i> (Pneumonia).	The teacher explains about the x-ray identification and laboratory interpretations for the diagnosis of <i>Nuraieral kaatru pai thotru</i> (Pneumonia). Case based learning : The class is divided into groups. The X-Ray pictures of normal and abnormal findings of <i>Nuraieral kaatru pai thotru</i> (Pneumonia) will

		<p>be displayed.</p> <p>The laboratory investigations will be displayed.</p> <p>Students will be asked to identify the X-Ray findings and abnormal lab findings as team.</p> <p>Duration : 30 minutes.</p> <p>Game based learning :</p> <p>Quiz:</p> <p>Conduct quiz on the various types of pneumonia,clinical features .</p> <p>Duration : 30 minutes.</p>
NLHT 12.3	Laboratory and imaging interpretations in primary complex.	<p>The teacher explains the x-ray identification and laboratory interpretations of Mantoux test for the diagnosis of <i>Muthanmai kasa noi</i> (Primary complex) and the students understand and perform the identification.</p> <p>Case based learning :</p> <p>The students are divided into groups.</p> <p>The x-ray pictures of normal and abnormal findings of <i>Muthanmai kasa noi</i> (Primary complex) will be displayed.</p> <p>Students will be asked to identify the x-ray findings as team and discuss about it.</p> <p>Points will be given to the team who identify first.</p> <p>The students will write the findings in case records.</p> <p>Duration: 1 hour.</p>
NLHT 12.4	Management of emergency situations.	<p>This teacher teaches how to manage emergency situations like - Drowning, choking, foreign body aspiration and Heimlich maneuver.</p> <p>Demonstration :</p> <p>Use a doll and demonstrate the situations and the recovering techniques using videos and charts.</p> <p>Duration : 30 minutes.</p> <p>Simulation:</p> <p>The students are divided into small groups.</p> <p>Each group is given a scenario involving pediatric emergency with patient details.</p>

	Assign roles within each group like one student as the caregiver, another as the care provider and others as observers. After simulation group discussions can be conducted. Duration : 30 minutes.
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 12.1	Clinical examination to assess respiratory disorders .	The teacher teaches how to perform the clinical examination procedures to diagnose respiratory illness and the students perform the procedures. Follow the preparatory procedures. Conduct a detailed history taking including complaints and duration. Interrogate for any allergic history. Perform the general examination including assessing anthropometry and vital signs. Perform the inspection, palpation, percussion and auscultation of respiratory system. Discuss the investigations, differential diagnosis, diagnosis. Frame a management plan based on the findings. Duration : 12 hours (complete the practicals in steps in the stipulated time).

Topic 13 Thamaraga Noikal (Cardio Vascular disorders) (LH :4 NLHT: 5 NLHP: 10)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO5, CO6	Describe the etiology and classification of congenital heart diseases .	CK	MK	K	L&PPT	QZ ,PUZ,V V-Viva	F&S		-	LH
CO5, CO6	Discuss the causes, clinical features, hemodynamics, investigations, complications and management of Cyanotic heart diseases and its management. (Tetrology of Fallot, Tricuspid atresia, Ebstein Anomoly, Transpo	CC	MK	KH	L&PPT ,L_VC	VV-Viva,O -QZ,M-CH T,M-MOD, T-OBT	F&S		-	LH

	sition of great vessels, Total anomalous pulmonary venous congestion)									
CO5, CO6	Identify cyanotic heart diseases through echocardiogram and x-ray findings.	PSY-GUD	MK	SH	FV,X-Ray,LRI,CBL	QZ,PRN,VV-Viva	F		-	NLHT13.1
CO5, CO6	Discuss the causes, hemodynamics ,clinical features,investigations,complications and management of Acyanotic heart diseases and its management. (Atrial septal defect, Ventricular septal defect, Patent ductus arteriosus,Coarctation of the aorta)	CC	MK	KH	L_VC,L&PPT ,TBL,CBL	T-CS,M-POS,VV-Viva,QZ,M-MOD	F&S		-	LH
CO4, CO5	Discuss the etiology, clinical features, complications and management of infective endocarditis.	CC	MK	KH	L&PPT	VV-Viva,P UZ,T- OBT,O-QZ	F&S		-	LH
CO5, CO6	Identify acyanotic heart diseases through Heart sounds and murmurs .	PSY-GUD	DK	KH	CD,RP,CBL	VV-Viva,P- RP	F		-	NLHT13.2
CO5, CO6	Illustrate an approach to the infant or child with a cardiac murmur.	CAP	MK	SH	DIS,GB L,BL	CL-PR	F		-	NLHT13.3
CO5, CO6, CO7	Explain the Indian guidelines for indications and timing of intervention and need for referrals in common congenital heart diseases.	CK	NK	K	DIS,L,I BL	O-QZ,DEB	F		-	LH
CO5	Conduct a detailed clinical examination to evaluate disorders of cardio vascular system in children.	PSY-GUD	MK	SH	D,CBL	SP	F&S		-	NLHP13.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

NLHT 13.1	Identification of cyanotic heart diseases.	<p>The teacher explains the classical features of cyanotic heart diseases and how to Identify cyanotic heart diseases through Echo and x-ray findings.</p> <p>Case based learning :</p> <p>The students are divided into groups.</p> <p>X-ray films with the classical features of cyanotic heart diseases are displayed to the class.</p> <p>The groups have to identify the abnormal findings in the given time.</p> <p>Echocardiogram reports are displayed .</p> <p>The groups have to identify the abnormal findings in the given time.</p> <p>Then the students discuss about the disease and document the findings.</p> <p>Quiz:</p> <p>Create a quiz and ask questions regarding the findings.</p> <p>Duration : 2 hours.</p>
NLHT 13.2	Identification of acyanotic heart diseases.	<p>The teacher first explains about heart sounds and murmurs and then their significance in finding the respective acyanotic heart disease. The students understand and perform the identification .</p> <p>Case based learning :</p> <p>The students are divided into groups.</p> <p>Each group is given a case scenario with the respective murmurs and change in heart sounds of the acyanotic heart conditions.</p> <p>They have to find out the acyanotic heart disease.</p> <p>The students discuss about the disease and document their discussions.</p> <p>Duration : 1 hour.</p> <p>Roleplays:</p> <p>The students are divided into groups.</p> <p>They are assigned the role of doctors and patients.</p> <p>The students as patients have to tell the clinical signs of a acyanotic heart disease and the student as doctor has to find out the disease by auscultation.</p> <p>Duration : 1 hour.</p>

NLHT 13.3	Identification of murmurs.	<p>The teachers explains about cardiac murmurs and students acquire knowledge to identify the murmurs in real time case experiences.</p> <p>Game based learning :</p> <p>Divide students into groups.</p> <p>Play different murmur sounds.</p> <p>The groups have to identify the type,location and possible causes of the murmur.</p> <p>Discuss each group's reasoning and the correct answers.</p> <p>Duration: 1 hour.</p>
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 13.1	Clinical examination of Cardio Vascular system.	<p>The teacher teaches how to perform the clinical examination of cadio vascular system and the students follow the same.</p> <p>Follow the preparatory procedures.</p> <p>Prepare the patient for the clinical examination.</p> <p>Perform a detailed history taking, antenatal history, birth history and neonatal history.</p> <p>Elicit and record the symptoms and details of relevant events and illness.</p> <p>Perform general physical examination for</p> <p>A. General appearance,</p> <p>B. Vital parameters</p> <p>C. Anthropometry</p> <p>D. Stature and build</p> <p>E. Dysmorphic features</p> <p>F . Anemia, cyanosis, dependent pitting edema,clubbing.</p> <p>5. Assess the general examination for the features of intellectual disability, growth retardation, disproportionate short stature, weight gain and oedema, lethargy and hypothermia.</p> <p>Cardio vascular Examination :</p> <p>Inspection</p>

Palpation
Percussion
Auscultation
Record the findings and advice the appropriate management and referral criterias.
Duration : 10 hours.

Topic 14 Narambu mandala Noikal (Neurological disorders) (LH :6 NLHT: 5 NLHP: 15)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO5, CO6	Describe the <i>Noi varum vazhi, Pothu kurikunanagal, Vagaigal, Maruthuvam of Balavatham.</i>	CC	MK	KH	L&GD	VV- Viva,PRN	F&S		-	LH
CO5, CO6	Explain the various external therapies used in treating <i>Maththiya narambu mandala noikal</i> in children.	CK	MK	K	D,L&PP T ,CBL	QZ ,PM,IN T,DOPS,V V-Viva	F&S		-	LH
CO5, CO6	Discuss the importance of early intervention, specialized care, and a compassionate approach to a child with neurological disorder.	CAP	NK	K	RP,D,C BL	OSCE,CL- PR	F		-	NLHT14.1
CO5, CO6	Describe the <i>Iyal, Noi varum vayathu, Vazhi, Vagaigal, Kurikunangal, Maruthuvam of Valippu noi</i> in children .	CC	MK	KH	L&PPT	T-OBT, VV- Viva	F&S		-	LH
CO5, CO6, CO7	Illustrate an approach to the child with seizure and the safety issues.	CAP	MK	K	CBL,RP	CL-PR,SP	F		-	NLHT14.2
CO5, CO6	Discuss the etiology, types, common signs and symptoms, investigations, diagnosis and <i>Maruthuvam of Sanni vatham</i> (Delirium) .	CC	MK	KH	L&PPT	T-OBT, VV- Viva	F&S		-	LH
CO5, CO6	Describe the definition, etiology, pathophysiology, clinical features, investigations, diagnosis and management of	CC	MK	KH	L&PPT ,CBL,R	O-QZ, VV- Viva, M-PO	F&S		-	LH

	Infantile hemiplegia.				P	S,CL-PR,INT				
CO5, CO6	Develop effective counselling strategies in children with neurological diseases.	CAP	MK	SH	RP,D	CL-PR,SP	F		-	NLHT14.3
CO5, CO6	Describe the definition, etiology ,pathophysiology,classification,clinical features, investigations and management of encephalitis and meningitis.	CC	MK	KH	L_VC	VV-Viva,S-LAQ,O-QZ	F&S		-	LH
CO5, CO6	Describe the definition, etiology, pathophysiology, classification, clinical features, investigations,management of hydrocephalus.	CC	MK	KH	L&PPT	T-OBT,CL-PR,PUZ,M-POS,INT	F&S		-	LH
CO5, CO6, CO7	Illustrate an approach to neurological assessment in children and enumerate the warning signs for referral.	CK	MK	K	FC,CBL,L&PPT	PUZ,QZ ,C L-PR,PRN	F&S		-	LH
CO5	Conduct the clinical examination of <i>Maththiya narambu mandala noikal</i> (Central nervous system).	PSY-GUD	MK	SH	D-BED, CBL	VV-Viva,O SPE,RK,Log book,P-EXAM	F&S		-	NLHP14.1
CO1, CO5, CO7	Conduct the clinical examination including history taking, general examination, vital signs, anthropometry, <i>Udal thathukkal</i> , <i>Ennvagai thervu</i> , <i>Mukkutram</i> , differential diagnosis, diagnosis and frame the the line of treatment of <i>Bala pakkavatham</i> .	PSY-GUD	MK	SH	CBL,D-BED	RK,DOPS, Log book,P-VIVA,P-EXAM	F&S		-	NLHP14.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 14.1	Early approach to neurological disorders.	The teacher describes the symptoms and signs of early progression of neurological diseases in children and the importance of early intervention,The students learn this through activities and perform the procedures.

		<p>OSCE : Observed structured clinical examination</p> <p>Neurological exam stations - Set up stations with different activities in classrooms like</p> <p>Station 1 : Match early symptoms to the correct neurological disease.</p> <p>Station 2 : Identify imaging results and associate them with the disease.</p> <p>Station 3 : Suggest early intervention strategies based on a given case.</p> <p>Students move through stations in teams solving problems and earning points.</p> <p>Document the discussions.</p> <p>Duration : 1 hour.</p> <p>Role play :</p> <p>Symptom cards describing early signs of neurological diseases are kept on the table.</p> <p>One student from each group comes and picks up a card and acts the symptoms and the group has to identify the disease.</p> <p>Duration : 1 hour.</p>
NLHT 14.2	Approach to the child with seizure .	<p>The teacher teaches the clinical features in seizure disorder and how to protect a child during the episode of seizure.</p> <p>Case based learning :</p> <p>The students are divided into groups.</p> <p>They are provided with scenarios with injuries to the child.</p> <p>They have to find out the possible cause and suggest the safety measures to prevent the situation.</p> <p>Duration : 1 hour.</p> <p>Role plays :</p> <p>The students are assigned roles as a child with seizure disorder and made to act to identify seizure triggers and seizure first aid simulation.</p> <p>Duration : 1 hour.</p>
NLHT 14.3	Counselling of children with neurological disorders.	<p>The teacher teaches the methods of counselling and its importance in children and the students understand and perform the counselling .</p> <p>Roleplay :</p>

	<p>Divide the students into pairs. One student play the role of the child and the other as the counsellor. Provide scenarios related to common challenges faced by children with neurological diseases. This activity helps students understand the impact of the disease on family. Duration: 1 hour.</p>
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 14.1	Clinical examination of central nervous system.	<p>The teacher explains how to to perform the clinical examination to assess Central nervous disorders. Follow the preparatory steps. Perform a detailed history taking, antenatal history, birth history and neonatal history. Elicit and record the symptoms and details of relevant events and illness. Perform general physical examination for</p> <ul style="list-style-type: none"> A. General appearance, posture,comfort level, activity. B. Vital parameters C. Anthropometry D. Stature and build E. Dysmorphic features F. Anemia, cyanosis, dependent pitting edema,clubbing <p>Assess the general examination for the features of Intellectual disability, growth retardation, disproportionate short stature, weight gain and oedema, lethargy and hypothermia. Assess the developmental milestones. Central nervous system Examination - Motor system examination Assess the nutritional status of muscle,power,tone ,superficial and deep tendon reflexes,involuntary movements and gait. Sensory system examination : Superficial and deep sensation.</p>

		<p>Examination for cerebellar lesions. Perform the Siddha diagnostic procedures. Arrive the diagnosis with differential diagnosis. Frame a management plan. Duration : 8 hours.</p>
NLHP 14.2	Clinical examination of a child with <i>Bala pakka vatham</i> .	<p>The teacher explains the clinicla features of bala pakka vatham and how to perform the clinical examination. Follow the preparatory steps. Observe the patient data, complaints and duration present history, previous history, personal history, family history, habit, immunisation history. Perform the examination to assess general examination, vital signs, anthropometry, central nervous system examination ,<i>Udal thathukkal, Ennvagai thervu, Mukkutram</i>, differential diagnosis, diagnosis and formulae the line of treatment . Document the findings. Duration : 7 hours.</p>

Topic 15 Thotru Noikal (Infectious Diseases) (LH :8 NLHT: 5 NLHP: 8)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO5, CO6	Describe the <i>Noi varum vazhi</i> (Etiology) , <i>Pothu kurigunangal</i> (Clinical features), <i>Vagaigal</i> (Types), <i>Maruthuvam of Suram</i> (Fever) .	CC	MK	KH	L&PPT	O-QZ,VV-Viva,CL-PR	F&S		-	LH
CO5, CO6	Discuss the diagnostic investigations for the evaluation of acute febrile illness and procedure for tepid sponging.	CAP	MK	KH	CBL,RP ,SIM,D	CL-PR	F		-	NLHT15.1
CO5, CO6	Describe the etiology, pathophysiology, signs, symptoms, investigations,diagnosis,complications and management of <i>Vali keel vayu suram</i> (Rheumatic fever).	CC	MK	KH	L&PPT	VV-Viva,M-CHT	F&S		-	LH

CO5, CO6	Describe the etiology,pathogenesis, signs, symptoms, investigations and management of <i>Kakkuvan erumal</i> (Whooping cough / Pertussis) and <i>Thondai adaipan noi</i> (Diphtheria).	CC	MK	KH	L&PPT	VV-Viva,O-QZ	F&S		-	LH
CO5, CO6	Describe the etiology, pathophysiology, signs, symptoms, investigations, complications and management of <i>Aama suram</i> (Enteric fever) and malaria.	CC	MK	KH	L&PPT	VV-Viva,PUZ	F&S		-	LH
CO5, CO6	Describe the etiology,signs,symptoms,investigations and management of <i>Kamalai</i> .	CC	MK	KH	L&PPT	VV-Viva,OSPE	F&S		-	LH
CO5, CO6	Describe the etiology, pathogenesis ,signs, symptoms, investigations and management of <i>Ilampillai vatham</i> (Poliomyelitis) and <i>Vil vatha sannai</i> (Tetanus) .	CC	MK	K	L&PPT	VV-Viva,PUZ	F&S		-	LH
CO5, CO6	Describe the etiology, signs, symptoms, investigations,complications and management of <i>Thattammai</i> (Measles), <i>Pootuthaalammai</i> (Mumps) <i>Ammai suram</i> (Chickenpox).	CC	MK	KH	L&PPT	O-QZ,WP, T-OBT,P-ID,VV-Viva	F&S		-	LH
CO5, CO6	Demonstrate the various traditional treatments and preventive measures of <i>Thattammai</i> (Measles), <i>Puttallammai</i> (Mumps) <i>Ammai suram</i> (Chickenpox) in Siddha system and evaluate it scientifically.	PSY-GUD	DK	SH	DIS,BS	QZ ,M-CH T,CL-PR	F		-	NLHT15.2
CO5, CO6	Describe the etiology, signs,symptoms, investigations and management of dengue fever in children.	CK	MK	K	L&PPT	O-QZ,VV-Viva	F&S		-	LH
CO5, CO6	Discuss the national guidelines for the pediatric management of dengue fever and evidence based Siddha management of dengue fever and conditions for referral.	CK	MK	K	L&PPT	CL-PR	F&S		-	LH

CO5, CO6	Describe the definition,etiology, transmission, signs, symptoms, investigations and management of Acquired Immuno deficiency syndrome in Children (AIDS).	CC	MK	KH	L&PPT ,W,TUT ,TBL	QZ ,M-MO D,T-OBT,V V- Viva,PUZ	F&S		-	LH
CO5, CO6	Discuss the transmission dynamics, clinical manifestation and diverse outcomes of SARS-CoV-2 infection and Bird's Flu, Swine Flu in children and adolescents.	CK	NK	K	CBL,FC ,L&PPT	DEB,O- QZ,CL-PR	F		-	LH
CO5, CO6	Describe the etiology, pathogenesis, clinical manifestations, complications, investigations and management of <i>kudal puzhu noigal</i> (Helminthic infestations) (Amoebiasis, Ascariasis/ roundworm (<i>Naaku poochi</i>), Pinworm (<i>Keeripoochi</i>), whipworm (<i>masarai poochi</i>), Giardiasis, Hook worm, Taenia Species).	CC	MK	K	LRI,DIS ,L&PPT ,GBL,C BL	M-CHT,M- POS,T-CS, VV-Viva	F&S		-	LH
CO5	Perform the clinical examination to assess infectious disease in pediatric age group.	PSY- GUD	MK	SH	D-BED, CBL	RK,P-EXA M,P- VIVA,Log book,CBA	F&S		-	NLHP15.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 15.1	Procedure for tepid sponging.	The teacher teaches about the diagnostic investigations to evaluate febrile illness and management through tepid sponging. Case based learning : Divide the students into groups. The students are provided with case studies with different type of febrile illness. Each group has to write the correct investigative methods.

		<p>They present their findings to the class and further discussions are made.</p> <p>Duration : 1 hour.</p> <p>Demonstration :</p> <p>Divide the students into pairs with one student demonstrating the tepid sponging procedure on the other.</p> <p>Duration : 1 hour.</p> <p>Case study discussions :</p> <p>Provide the students with case studies of patients and discuss about the indications,contraindications.</p> <p>Duration: 1 hour.</p>
NLHT 15.2	Traditional treatment for exanthematous fevers.	<p>The teacher discuss about the various traditional Siddha treatment and preventive measures of <i>Tattammai</i> (Measles), <i>Puttallammai</i> (Mumps), <i>Ammai suram</i> (Chickenpox).The students learn them through activities.</p> <p>Discussions :</p> <p>The students are divided into groups and have discussions on the preventive measures by reading research articles.</p> <p>The students are made to write the preventive measures which they learnt from their real life experiences.</p> <p>Duration : 40 minutes.</p> <p>Making Charts :</p> <p>The students make charts on the topics of <i>Tattammai</i> (Measles) ,<i>Puttallammai</i> (Mumps) ,<i>Ammai suram</i> (Chickenpox) .</p> <p>Duration : 40 minutes.</p> <p>Quiz :</p> <p>Create quiz with questions based on symptoms and the corresponding type of fever.</p> <p>Duration : 40 minutes.</p>
Non Lecture Hour Practical		
S.No	Name of Practical	Description of Practical Activity

NLHP 15.1	Clinical examination to assess infectious diseases.	<p>The teacher teaches how to perform the clinical examination to diagnose infectious diseases and the students perform the procedures.</p> <p>Follow the preparatory steps.</p> <p>Perform history taking, general examination, recording vital signs, anthropometry and immunization history.</p> <p>Perform disease based system wise examination - inspection, palpation, percussion, auscultation.</p> <p>Perform Siddha diagnostic procedures.</p> <p>Document the findings and frame a management plan.</p> <p>Duration : 8 hours.</p>
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Topic 16 Janana Uruppu Mandala Noikal (Genito Urinary Disorders) (LH :2 NLHT: 2 NLHP: 5)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO5, CO6	Describe the definition, etiology, classification, clinical features, investigations, management of congenital defects of urogenital system.	CK	MK	K	L&PPT	O-GAME, O-QZ,QZ ,PUZ	F&S		-	LH
CO5, CO6	Conduct counselling for parents of children with congenital genito urinary defects.	PSY-GUD	DK	K	RP	INT	F		-	NLHT16.1
CO5, CO6	Describe the definition,etiology, clinical features, investigations,management of enuresis .	CK	MK	K	L&PPT	QZ ,PUZ	F&S		-	LH
CO5, CO6	Describe the definition, etiology, clinical features, investigations, management of encopresis.	CK	MK	K	L&PPT	QZ ,O-QZ,PUZ	F&S		-	LH
CO5, CO6	Describe the definition etiology, pathogenesis, clinical Features, investigations and management of acute glomerulo nephritis .	CC	MK	KH	L&PPT	CL-PR	F&S		-	LH
CO5, CO6	Describe the definition, etiology, pathogenesis, clinical Features, investigations, complications and management of nephrotic Syndrome.	CC	MK	KH	L&PPT	M-POS,T-OBT,INT,C L-PR	F&S		-	LH

CO5, CO6	Explain urinary tract infection in children .	CAN	DK	KH	L&PPT ,CBL	SP,INT	F		-	LH
CO5, CO6	Evaluate a child with acute retention of urine .	CAN	DK	K	TBL,CB L,PER	INT	F		-	NLHT16.2
CO5, CO6	Perform the clinical examination to assess genito urinary disorder in pediatric age group .	PSY- GUD	MK	SH	CBL,C D,LRI, D-BED	P-EXAM,P -PRF,P- CASE	F&S		-	NLHP16.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 16.1	Counselling for parents.	<p>The teacher explains how to counsel the parents of children with congenital genito urinary defects and the students follow the same.</p> <p>Role plays :</p> <p>Divide the students into groups.</p> <p>Provide the students with case studies.</p> <p>Assign the roles of child, parent and counsellor.</p> <p>The students act accordingly and interact.</p> <p>The students then discuss about the challenges they faced during roleplay.</p> <p>Duration :1 hour.</p>
NLHT 16.2	Evaluation of a child with acute retention of urine .	<p>The teacher teaches how to evaluate a child with acute retention of urine and the students perform the procedures.</p> <p>Case based learning :</p> <p>Ask the student to prepare themselves with various etiologic causes , investigations, differential diagnosis of acute retention of urine</p> <p>Divide the students in the class into teams and propose a case scenario to each team.</p> <p>Each group discuss on different themes such as causes, impact ,clinical features,diagnosis and</p>

		prevention of the problem. They present their discussions to the class. Duration: 1 hour.
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 16.1	Clinical examination of genito urinary disorders.	<p>The teacher explains how to perform the clinical examination of genito urinary disorders and the students perform the procedures under the guidance of the teacher.</p> <p>Follow the preparatory steps.</p> <p>Perform a detailed history taking with complaints and duration.</p> <p>Conduct a general examination with importance to pitting edema, pallor, facial puffiness, distention of abdomen.</p> <p>Pay attention in evaluating physical growth to assess for stunted growth and record the vital signs.</p> <p>Conduct the systemic examination under inspection, palpation, percussion and auscultation. and fluid thrill if ascites is present including investigations.</p> <p>Perform the Siddha diagnostic procedures .</p> <p>Arrive the diagnosis with differential diagnosis.</p> <p>Based on the findings frame a management plan, diet restrictions, lifestyle modifications.</p> <p>Document in case records.</p> <p>Duration : 5 hours.</p>

Topic 17 Thasai Matrum Enbu Kuraipadugal (Musculo skeletal disorders) (LH :3 NLHT: 2 NLHP: 10)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO5, CO6	Describe the definition, etiology, classification, clinical features, investigations, management of muscular dystrophy.	CC	MK	KH	L&PPT ,CBL,D- BED	VV- Viva,QZ ,CL-PR	F&S		-	LH

CO5, CO6, CO7	Aware to parental guidelines to care for a child with Duchenne muscular dystrophy.	AFT- VAL	NK	KH	SIM,RP	INT,SBA	F		-	NLHT17.1
CO5, CO6	Describe the definition, etiology, clinical features, investigations, management (internal and external therapies) for lordosis.	CC	MK	KH	L&PPT ,DIS	C-VC,SP, CL-PR	F&S		-	LH
CO5, CO6	Describe the definition, etiology, clinical features, investigations, management (internal and external therapies) for kyphosis.	CC	MK	KH	L&PPT ,L_VC	O- QZ,SP,INT	F&S		-	LH
CO5, CO6	Describe the definition,etiology,clinical features, investigations, management (internal and external therapies) for scoliosis.	CC	MK	KH	L&PPT ,D-BED	M-POS,SP, PUZ,QZ	F&S		-	LH
CO5, CO6	Demonstrate the Siddha external therapies for various musculo skeletal disorders .	CAP	MK	KH	D-BED, CBL	P-PRF,DO PS,DOPS	F		-	NLHP17.1
CO5, CO6	Perform the clinical examination to evaluate <i>Thasai kolarukal</i> (musculo skeletal disorder).	PSY- GUD	MK	SH	D-BED, PT,CBL	P-EXAM,P -CASE,P-V IVA,P-PRF	F&S		-	NLHP17.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 17.1	Parental guidelines for duchenne muscular dystrophy.	<p>The teacher explains the challenges faced by the parents of children with musculo skeletal disorders and about the guidelines to care their child. The students learn the concept and effectively communicate to the parents.</p> <p>Role play :</p> <p>Students will be asked to go through the published parental guidelines to care for a child with muscular dystrophy prior to the class.</p> <p>The students will be divided as teams to start the role play as follows.</p> <p>Students will be divided into a team of 6-8 students in each team.</p> <p>Procedure :</p> <p>One of student will be simulated to act like a parent of a child with genetic disorder and express his/her</p>

		<p>worries and anxieties about the child.</p> <p>Each student can explain about one of the above headings and express with empathy how to care for a child with muscular dystrophy.</p> <p>The students share their own ideas on the care of the child to the class and will be able to understand the challenges of parents .</p> <p>Duration : 2 hours.</p>
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 17.1	Siddha external therapies for musculo skeletal disorders .	<p>The teacher explains about the various external therapies and demonstrate them in patients.The students understand the procedures and perform them under the guidance of the teacher.</p> <p>Case based learning :</p> <p>Follow the preparatory methods.</p> <p>Assess the clinical findings of the patient.</p> <p>Provide the students the necessary medicines like medicated oils, powders.</p> <p>The students perform the procedures under the supervision of the teacher.</p> <p>Assess the students through accuracy of the procedure and the understanding of their indications</p> <p>Duration : 5 hours.</p>
NLHP 17.2	Clinical examination to assess musculo skeletal disorder.	<p>The teacher teaches how to perform the clinical examination and the students perform the procedures.</p> <p>Follow the preparatory steps.</p> <p>Prepare the patient for the clinical examination.</p> <p>Take the history of the patient, complaints and duration with vitals.</p> <p>The child should lie flat or in sitting position. Infants and small children may be examined on the mother's lap.</p> <p>Higher function - Consciousness, behaviour, intelligence, memory,orientation,speech.</p> <p>Cranial nerves examination.</p> <p>Motor System Examination - Nutrition,bulk,power,tone.</p>

Sensory system examination - Superficial sensations, deep sensations, cortical sensations.
 Reflexes - Superficial reflex, deep tendon reflex.
 Observe the gait.
 Check for gower's sign.
 Perform the Siddha diagnostic procedures and investigations.
 Based on the findings arrive the diagnosis with differential diagnosis.
 Frame a management plan.
 Duration : 5 hours.

Topic 18 Marabanu Kuraipadugal (Genetic disorders) (LH :8 NLHT: 2 NLHP: 5)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO4, CO5, CO6	Discuss on the causes of genetic disorders according to Siddha system of medicine and management of genetic disorders.	CK	MK	K	L&PPT	VV-Viva,O-QZ,PUZ	F&S		-	LH
CO4, CO5, CO6	Demonstrate and discuss on the role of genetic counselling for parents who care for a child with genetic disorder.	AFT-VAL	NK	KH	D,CBL	SBA,CL-PR,INT	F		-	NLHT18.1
CO4, CO5, CO6	State the definition, etiology, clinical features, screening tests, diagnosis and management of Down's syndrome (Trisomy21), Trisomy 13, Trisomy 18, Fragile X Syndrome, Klinefelter Syndrome, Turner Syndrome.	CC	MK	K	L_VC	VV-Viva,CBA	F&S		-	LH
CO5, CO6	State the definition, etiology, screening tests, diagnosis and management of cystic fibrosis.	CK	DK	K	L&PPT	VV-Viva,O-QZ	F&S		-	LH
CO4, CO5,	List the various genetic disorders in children.	CK	MK	K	L&PPT, FV	VV-Viva	F		-	LH

CO6										
CO4, CO5, CO6	Demonstrate how AI tools and modern technologies can be used to accurately diagnose the rare pediatric genetic diseases.	PSY-GUD	DK	KH	CBL	PRN	F		-	NLHT18.2
CO5	Perform the clinical examination to assess genetic disorders.	PSY-GUD	MK	SH	CBL,D	OSCE,VV-Viva	F&S		-	NLHP18.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 18.1	Role of genetic counselling for parents.	<p>The teacher explains the significance of genetic counselling for parents of children with genetic disorders. The students understand the significance through activities.</p> <p>Case based learning :</p> <p>Divide the students into small groups.</p> <p>Provide an overview of genetic counselling principles like risk assessment, inheritance patterns, emotional support.</p> <p>Assign each group a case scenario involving genetic disorder. Include details like family history, diagnostic results.</p> <p>Each group discusses the assigned case and identify the genetic disorder, risk of occurrence, psychological concerns of parents.</p> <p>Duration : 1 hour.</p>
NLHT 18.2	AI tools and modern technologies in rare pediatric genetic diseases.	<p>The teacher explains about the role of AI tools and modern technologies in accurately diagnosing the rare pediatric genetic diseases. The students understand how these tools transform the diagnosis.</p> <p>Case based learning :</p> <p>Divide the students into small groups.</p> <p>Provide brief introduction to AI and modern technologies in the context of rare pediatric disorders.</p> <p>Assign each group a case study of rare pediatric disease and information on AI technologies being used in similar cases.</p>

	Each group discusses how AI and modern technologies help in diagnosing the disease earlier. Each group present their findings to the class. Duration : 1 hour.
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 18.1	Clinical examination to assess genetic disorders.	<p>The teacher explains how to perform the clinical examination and the students perform the procedures. Follow the preparatory steps. Prepare the patient for the clinical examination. Perform a detailed history taking, antenatal history, birth history and neonatal history. Elicit and record the symptoms and details of relevant events and illness. Perform general physical examination for</p> <ul style="list-style-type: none"> A. General appearance, posture, comfort level, activity B. Vital parameters C. Anthropometry D. Stature and build E. Dysmorphic features F. Anemia, cyanosis, dependent pitting edema, clubbing. <p>Assess the general examination for the features of intellectual disability, growth retardation, disproportionate short stature, weight gain and oedema, lethargy and hypothermia. Perform the systemic examination.</p> <ul style="list-style-type: none"> A. Cardiovascular system B. Respiratory system C. GastroIntestinal System D. Central nervous system E. Musculoskeletal System <p>Perform the Siddha diagnostic procedures and investigations. Derive the diagnosis with differential diagnosis.</p>

Based on the findings frame a management plan
Duration : 5 hours.

Topic 19 Naalamillaa Surappigalin Kuraipadugal (Endocrine disorders) (LH :2 NLHT: 1 NLHP: 7)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO5, CO6	Describe the definition, etiology, clinical features, diagnosis, management of cushing's syndrome	CK	MK	K	L&PPT, L_VC	CL-PR	F&S		-	LH
CO5, CO6	Describe the definition, etiology, clinical features, diagnosis, management of <i>Balar mathu mega noi</i> (Juvenile diabetes mellitus).	CK	MK	K	PrBL, L & PPT, TBL	QZ, PUZ	F&S		-	LH
CO5, CO6	Describe the definition, etiology, classification, clinical features and management of <i>Kurai veethana kuraipadu</i> (Congenital Hypothyroidism).	CC	MK	KH	L&PPT	QZ, PUZ	F&S		-	LH
CO5, CO6, CO7	Discuss the recognition of continuous care and support of the family for a child with endocrine disorders.	CAN	NK	KH	IBL, BL	INT, DEB	F		-	NLHT19.1
CO2	Conduct a clinical examination to assess endocrine disorders in children.	PSY-GUD	MK	SH	CBL, D-BED	P-EXAM, P-VIVA, DO PS, DOPS	F&S		-	NLHP19.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 19.1	Continuous care and support for a child with endocrine disorders.	The teacher explains how to care and support a child with endocrine disorders and the students understand the same and effectively communicate to the family members. Debate Topic : "Resolving the Challenges of Caring for Children with Endocrine Disorders: Family Support and Care"

		<p>Preparation :</p> <p>Students may be given sufficient time in prior to prepare regarding the challenges for caring for children with endocrine disorders. Ask a team of students to volunteer for Team A and Team B. Others can represent the audience.</p> <p>The teams are assigned topics like comprehensive family support and specialized medical Care. The teams debate focusing on their topics.</p> <p>Summarize the key points, reiterate team positions, and emphasize the importance of balancing comprehensive family support with specialized medical care.</p> <p>Duration : 1 hour.</p>
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 19.1	Clinical examination of endocrine disorders.	<p>The teacher explains how to perform the clinical examination to evaluate endocrine disorders and the students perform the examination.</p> <p>Follow the preparatory steps.</p> <p>The teacher explains how to perform the clinical examination and the students perform the procedures.</p> <p>Follow the preparatory steps.</p> <p>Prepare the patient for the clinical examination.</p> <p>Perform a detailed history taking, antenatal history, birth history and neonatal history.</p> <p>Elicit and record the symptoms and details of relevant events and illness.</p> <p>Perform general physical examination for</p> <ul style="list-style-type: none"> A. General appearance, posture, comfort level, activity. B. Vital parameters C. Anthropometry D. Stature and build E. Dysmorphic features <p>Assess the general examination for the features of intellectual disability, growth retardation, disproportionate short stature, weight gain and oedema, lethargy and hypothermia.</p> <p>Perform the Systemic Examination</p>

A. Cardiovascular system
 B. Respiratory system
 C. GastroIntestinal System
 D. Central nervous system
 E. Musculoskeletal System
 Perform the Siddha diagnostic procedures and investigations.
 Derive the diagnosis with differential diagnosis.
 Based on the findings frame a management plan.
 Duration : 7 hours.

Topic 20 Thol Noigal (Skin Diseases) (LH :4 NLHT: 3 NLHP: 13)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO3, CO5, CO6	Describe the <i>Iyal, Varum vayathu, Varum vazhi, Vagaigal, Kurikunangal</i> and <i>Maruthuvam of Karappan</i> .	CK	MK	K	L&PPT	PRN, VV-Viva, T-CS, INT	F&S		-	LH
CO3, CO5, CO6	Describe the types, clinical features, investigations, diagnosis and management of <i>Sirangu</i> .	CC	MK	KH	L&PPT	VV-Viva, T-CS, CBA	F&S		-	LH
CO3, CO5, CO6	Describe the definition, etiology, clinical features and management of atopic dermatitis.	CK	MK	K	L&PPT	CBA, QZ, CL-PR	F&S		-	LH
CO3, CO5, CO6	Describe the definition, etiology, clinical features and management of diaper rashes.	CK	MK	K	L&PPT	VV-Viva	F&S		-	LH
CO3, CO5,		CK	MK	K	L_VC, L&PPT	VV-Viva, M-CHT, INT	F&S		-	LH

CO6	Describe the definition, etiology, clinical features and management of insect bites in infants.									
CO3, CO5, CO6	List the common skin disorders in children.	CK	MK	K	L	PRN,O-QZ	F&S		-	LH
CO3, CO5, CO6	Discuss the importance of diet in Siddha system for the management of skin diseases in children.	CAP	MK	K	DIS,GB L	INT,M- CHT,QZ	F		-	NLHT20.1
CO1, CO5	Perform the clinical examination of <i>Bala Karappan</i> and frame a management plan.	PSY- GUD	MK	SH	CBL,D- BED	VV-Viva,P- EXAM,P-V IVA,OSCE, Log book	F&S		-	NLHP20.1
CO1, CO5	Conduct the clinical examination including Siddha diagnostic procedures to evaluate <i>Sirangu</i> (scabies) in children.	PSY- GUD	MK	SH	D-BED, CBL	P-CASE,SP ,P-VIVA,P- EXAM	F&S		-	NLHP20.2
CO3, CO4	Identify the basic skin lesions and their morphology.	CAP	DK	KH	GBL	INT,M- CHT	F		-	NLHT20.2
CO3, CO5, CO6	Describe the causes, clinical features, diagnosis and prevention of impetigo in children.	CC	MK	KH	L&PPT ,DIS	VV- Viva,INT, C-VC	F&S		-	LH
CO3, CO5, CO6	Comprehend the types, causes, clinical presentation, diagnosis and psychosocial impact of psoriasis in children.	CC	MK	KH	CBL,L &PPT	VV-Viva,C L-PR,T-CS	F&S		-	LH

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity

NLHT 20.1	Diet in Siddha system for skin diseases.	<p>The teacher explains about the diets for the management of skin diseases and the students understand and know to advice the dietary advices.</p> <p>Group discussions :</p> <p>Dietary regimen design :</p> <p>Divide the students into groups and ask them to design a diet plan for a patient with specific skin condition.</p> <p>Duration : 40 minutes.</p> <p>Interactions :</p> <p>Provide the students with a list of medicines and ask them to study and discuss how diet interacts with the medicines.</p> <p>Quiz :</p> <p>Create a quiz that tests the student's knowledge in Siddha diet management principles.</p> <p>Duration : 40 minutes.</p> <p>Making charts :</p> <p>The students are assigned with projects based on the dietary advices in managing skin diseases at home.</p> <p>They prepare and present charts to the class</p> <p>Duration : 40 minutes.</p>
NLHT 20.2	Identification of the basic skin lesions.	<p>The teacher explains how to identify the basic skin lesions and the student learns to diagnose the skin disease correctly.</p> <p>Game based learning :</p> <p>Create one set of flash cards with primary and secondary skin lesions. Create another set of cards with the skin diseases.</p> <p>Divide the students into groups.</p> <p>Give each group with a set of both cards.</p> <p>They have to match the cards correctly within the given time.</p> <p>The students then discuss the diseases and document in case records.</p> <p>They can also make charts to depict the basic skin lesions.</p> <p>Duration : 1 hour.</p>

Non Lecture Hour Practical										
S.No	Name of Practical	Description of Practical Activity								
NLHP 20.1	Clinical examination of <i>Bala karappan</i>	<p>The teacher explains how to perform the clinical examination to evaluate <i>Bala karappan</i> and the students perform the procedures in clinical cases.</p> <p>Follow the preparatory steps</p> <p>Observe the patient data, complaints and duration present history, previous history, personal history, family history, habit, immunisation history</p> <p>Perform the examination to assess general examination, vital signs, anthropometry, <i>Udal thathukkal</i>, <i>Ennvagai thervu</i>, <i>Mukkutram</i>, clinical examination, differential diagnosis and diagnosis of <i>Bala karappan</i></p> <p>Formulate the line of treatment and dietary advices and lifestyle modifications.</p> <p>Duration : 5 hours.</p>								
NLHP 20.2	Clinical examination of <i>Sirangu</i> (scabies).	<p>The teacher explains how to perform the clinical examination and the students perform the procedures in cases.</p> <p>Follow the preparatory steps.</p> <p>Observe the patient data, complaints and duration, present history, previous history, personal history, family history, habit, immunisation history.</p> <p>Perform the examination to assess general examination, vital signs, anthropometry, <i>Udal thathukkal</i>, <i>Ennvagai thervu</i>, <i>Mukkutram</i>.</p> <p>Perform the clinical examination of skin by inspection, palpation, percussion and auscultation.</p> <p>Based on the findings discuss the differential diagnosis and diagnosis.</p> <p>Formulate the line of treatment</p> <p>Duration : 8 hours.</p>								
Topic 21 Sevi mooku thondai & Kann Noikal (ENT and Eye diseases) (LH :5 NLHT: 2 NLHP: 7)										
A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3

CO4, CO6	List out the <i>Sevi Noigal</i> (Common ear infections) in pediatric age group and discuss the definition, causes, clinical features, diagnosis and management of otitis Media - acute and chronic.	CK	MK	K	L&PPT	QZ ,INT	F&S		-	LH
CO3, CO4, CO6	Discuss the definition causes, clinical features, diagnosis and management of rhinorrhea and epistaxis.	CK	MK	K	L&PPT	INT,O-QZ	F&S		-	LH
CO4, CO6	Discuss the definition, clinical features, investigations, diagnosis, complications and management of tonsilitis (<i>Lasuna thabitham</i>).	CK	MK	K	L&PPT	INT,VV- Viva,QZ	F&S		-	LH
CO4, CO6	State the definition, signs, symptoms and management of congenital cataract.	CK	MK	K	L&PPT	VV- Viva,SP	F&S		-	LH
CO4, CO6	State the definition, signs, symptoms and management of <i>Maalai kan</i> (Nyctalopia).	CK	MK	K	L_VC,L &PPT	INT,QZ	F&S		-	LH
CO4, CO6	Describe the signs and symptoms and management of myopia .	CK	MK	K	L&PPT	INT,VV-Vi va,M-CHT	F&S		-	LH
CO5, CO6		CK	MK	K	L&PPT ,FC	INT,VV-Vi va,CL-PR	F&S		-	LH

	Explain the causes, clinical features, diagnosis, complications and management of <i>Amaram</i> (Ophthalmia neonatarum).									
CO5, CO6	Evaluation of a child with ear pain and conjunctivitis.	PSY-GUD	MK	SH	SIM,DIS,CBL	CL-PR,VV-Viva,SP	F&S		-	NLHT21.1
CO5, CO6	Discuss on the impact of foreign body in ear, nose, throat (ENT) and eyes and its management.	CAP	MK	SH	RP,PBL	M-CHT,INT	F&S		-	NLHT21.2
CO5	Perform the clinical examination to assess ENT and eye diseases.	PSY-GUD	MK	SH	CBL,D-BED	DOPS,P-VI VA,P-EXA M,M-CHT,QZ	F&S		-	NLHP21.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 21.1	Approach to ear pain and conjunctivitis.	<p>The teacher explains the methods to evaluate a child with ear pain and conjunctivitis and the students learn the same through activities.</p> <p>Case study discussions :</p> <p>Provide the students with case studies of children with ear pain and conjunctivitis and ask them to discuss the causes, diagnostic approaches and management strategies.</p> <p>Duration : 30 minutes.</p> <p>Simulations :</p> <p>Create a simulated patient scenario where students evaluate and manage the child with ear pain and conjunctivitis.</p> <p>Duration : 30 minutes.</p>
NLHT 21.2	Management of foreign body in ear, nose, throat (ENT) and eyes .	<p>The teacher teaches about the impact of foreign bodies into the ear, nose, throat and eyes. The students learn it through activities.</p> <p>Role plays :</p> <p>Divide the students into groups and provide a scenario and make them to act as the child, care giver</p>

		and demonstrate the steps to remove the foreign body. Making charts : Making charts on common foreign bodies causing injury to children. Duration: 1 hour.
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 21.1	Clinical examination to assess ENT and eye diseases	The teacher explains how to perform the clinical examination to evaluate the diseases of eye, nose, throat and eyes. Follow the preparatory steps. Prepare the patient for the clinical examination. Take the history of the patient, complaints and duration with vitals. Perform the clinical examination relevant to the ENT and eye diseases. Document the findings . Frame a management plan. Duration : 7 hours.

Topic 22 Piravi Kuraipaadugal (Congenital birth defects) (LH :2 NLHT: 1 NLHP: 5)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO5, CO6	Discuss the definition, etiology, clinical features and management of Cleft lip and Cleft palate.	CK	MK	K	L&PPT	M-POS,QZ	F&S		-	LH
CO5, CO6	Describe the definition, etiology, clinical features ad management of congenital talipes equinovarus (clubfoot).	CK	MK	K	L_VC,L &PPT	INT,O- QZ,M-CHT	F&S		-	LH
CO5,		CK	MK	K	L&PPT	INT,VV-	F&S		-	LH

CO6	Describe the definition, etiology, clinical features and management of osteogenesis imperfecta.					Viva				
CO5, CO6	Describe the definition, etiology, clinical features and management of imperforate anus.	CK	DK	K	L&PPT	INT,M- CHT	F		-	LH
CO5, CO6	Identify and name the various congenital birth defects in children and advocate the management measures.	CAP	MK	K	FC	VV-Viva,I NT,QZ	F&S		-	NLHT22.1
CO5	Perform clinical examination to assess congenital birth defects.	PSY- GUD	MK	SH	TBL,DI S,SIM	PRN,SP,R K,VV- Viva,Log book	F		-	NLHP22.1

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 22.1	Management measures in congenital birth defects.	<p>The teacher teaches about the congenital birth defects and students understand through various activities and perform the same in cases.</p> <p>Flipped classroom :</p> <p>Pre classroom activity :</p> <p>Provide pre reading materials like case studies, video lectures, articles on the causes, screening methods, diagnostic criteria, post-natal care, genetic counseling methods.</p> <p>Quiz :</p> <p>Conduct a short quiz to ensure students have reviewed the materials.</p> <p>Have discussions on the topic and record the feedbacks.</p> <p>Duration: 1 hour.</p>

Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
NLHP 22.1	Clinical examination to assess congenital birth defects.	<p>The teacher explains the procedures of clinical examination through simulations and real life cases and the students perform the steps in the cases.</p> <p>Follow the preparatory steps.</p> <p>Obtain a detailed history of the child including maternal history, birth history, family history, immunization history.</p> <p>Conduct a general examination including assessing anthropometry and vital signs.</p> <p>Perform a head to toe examination to look for abnormal findings.</p> <p>Conduct a specific examination for common congenital defects like</p> <p>Cleft lip and palate - Inspect the upper lip and palate using a tongue depressor. Assess feeding difficulties.</p> <p>Osteogenesis imperfecta - Inspect for short stature, deformities of limbs due to fractures, macrocephaly, frontal bossing, blue sclerae, discoloured teeth, palpate for tenderness, bowing of legs.</p> <p>Clubfoot - Inspect and palpate for fixed deformities of the foot. Check flexibility and position of the heel.</p> <p>Imperforate anus - Examine the perineal region for absence of a visible anal opening. Check for perineal reflex.</p> <p>Based on the findings, investigations, confirm the diagnosis.</p> <p>Conduct an Examination of Respiratory system, cardiovascular system, central nervous system.</p> <p>Document the findings.</p> <p>Duration : 5 hours.</p>

Topic 23 Varmam Matrum Pura Maruthuvam (LH :2 NLHT: 4 NLHP: 0)

A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3
CO5, CO6	List out the diseases indicated and the preparatory methods, materials needed, procedures, benefits and contraindications to do <i>Thokkanam, Nasiyam, otradam, pugai.</i>	CK	MK	K	L_VC,L &PPT	P-PRF,SP, M-CHT,IN T,VV-Viva	F&S		-	LH

CO5, CO6	Demonstrate the procedures of <i>Thokkanam, Nasiyam, Otradam, Pugai</i> in children.	PSY- GUD	MK	KH	RP,D,C BL	CL-PR,M- POS	F&S		-	NLHT23.1
CO5, CO6	List out the diseases indicated and the preparatory methods, materials needed, procedure, benefits and contraindications to do <i>Poochu, Patru, Pottanam, Mai, Kattu</i> .	CK	MK	KH	L&PPT	OSCE,M-C HT,VV-Viv a,M-POS	F&S		-	LH
CO5, CO6	Demonstrate the procedures of <i>Poochu, Patru, Pottanam, Mai, Kattu</i> in children.	PSY- GUD	MK	KH	CBL,RP ,D	CL-PR,DO PS,M- POS,DOPS	F&S		-	NLHT23.2

Non Lecture Hour Theory

S.No	Name of Activity	Description of Theory Activity
NLHT 23.1	Demonstration of <i>Thokkanam, Nasiyam, Otradam, Pugai</i> in children.	<p>The teacher teaches and demonstrates the steps to do <i>Thokkanam, Otradam, nasiyam and Pugai</i> . The students demonstrate the same in cases.</p> <p>Case based learning :</p> <p>Provide case scenarios where Siddha external therapies are needed.</p> <p>The students discuss about the steps and document the discussions.</p> <p>Duration : 40 minutes.</p> <p>Role play :</p> <p>Divide the students into groups.</p> <p>The students are assigned with the roles of physician and patient. Others observe the procedures.</p> <p>Students perform the external therapies and explain the procedures.</p> <p>Duration : 40 minutes.</p> <p>Making posters :</p> <p>The students are given instructions to design posters.</p> <p>Duration : 40 minutes.</p>
NLHT 23.2	Demonstration of <i>Poochu, Patru, Pottanam, Mai, Kattu</i> .	The teacher teaches and demonstrates the steps to do <i>Poochu, Patru, Pottanam, Mai, Kattu</i> . The students demonstrate the same in cases.

		<p>Case based learning :</p> <p>Provide case scenarios where siddha external therapies are needed. The students discuss about the steps and document the discussions. Duration : 40 minutes.</p> <p>Role play :</p> <p>Divide the students into groups. The students are assigned with the roles of physician and patient. Others observe the procedures. Students perform the external therapies and explain the procedures. Duration : 40 minutes.</p> <p>Making posters :</p> <p>The students are given instructions to design posters. Duration : 40 minutes.</p>
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Non Lecture Hour Practical

S.No	Name of Practical	Description of Practical Activity
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Table 4 : NLHT Activity

(*Refer table 3 of similar activity number)

Activity No*	CO No	Activity details
1.1	CO1	Demonstration of neonatal reflexes.
1.2	CO3	Recitation of poems
1.3	CO1	Designing a newborn care unit.
1.4	CO1	Identification and documentation of herbal medicines for umbilical cord infections.
1.5	CO1	Resuscitation of distressed newborn.
2.1	CO1	Preparation of a list of common complementary foods.
2.2	CO1,CO6	Designing a lactation enhancement plan.
3.1	CO1	Identification of Siddha immunization principles.
3.2	CO1	Traditional practices to strengthen immunity.
3.3	CO1	Integration of Siddha and modern principles of immunization.
4.1	CO2	Description of fetal growth as per literature.
4.2	CO2	Comparison of <i>Paruvangal</i> of children with developmental milestones.
4.3	CO2	Assessment of developmental milestones.
4.4	CO2,CO6	Identification and understanding of long term outcomes of developmental delays.
5.1	CO2,CO6	Significance of physical growth in growth disorders.
5.2	CO2,CO6	Interpretation of lab investigations.
5.3	CO2,CO6	Discussion on Siddha diagnostic principles.

5.4	CO2,CO6	Discussion on <i>Envagai thervu</i> and <i>Neerkuri,Neikuri</i> .
6.1	CO2	Significance of traditional toys .
6.2	CO2	Significance of feeding tools .
6.3	CO2,CO6	Influence of food in developmental delays.
7.1	CO2,CO6,CO7	Counselling to parents.
8.1	CO2,CO6	Assessment of pshycological status of adolescents.
8.2	CO2,CO6	Assessment of nutritional status.
9.1	CO1	Caloric value of Indian foods.
9.2	CO1,CO6	Significance of physical growth in nutritional disorders.
9.3	CO1,CO6	Calculation of daily nutrient requirements in children.
9.4	CO1,CO6	Discussion on Siddha diagnostic principles.
10.1	CO1	Arrangement of screening camps in schools.
11.1	CO3,CO5,CO6,CO7	Demonstration of counselling for parents .
11.2	CO5,CO6	Preparation of ORS solution.
11.3	CO5,CO6	Identification of warning signs of gastro intestinal disorders.
11.4	CO5,CO6	Management of pediatric accidental poisoning.
12.1	CO5,CO6	Laboratory intrepretations of upper respiratory infections.
12.2	CO5,CO6	Laboratory and imaging intrepretation of <i>Nuraieral kaatru pai thotru</i> (Pneumonia).
12.3	CO5,CO6	Laboratory and imaging interpretations in primary complex.

12.4	CO5,CO6	Management of emergency situations.
13.1	CO5,CO6	Identification of murmurs.
13.2	CO5,CO6	Identification of cyanotic heart diseases.
13.3	CO5,CO6	Identification of acyanotic heart diseases.
14.1	CO5,CO6	Counselling of children with neurological disorders.
14.2	CO5,CO6	Early approach to neurological disorders.
14.3	CO5,CO6,CO7	Approach to the child with seizure .
15.1	CO5,CO6	Procedure for tepid sponging.
15.2	CO5,CO6	Traditional treatment for exanthematous fevers.
16.1	CO5,CO6	Counselling for parents.
16.2	CO5,CO6	Evaluation of a child with acute retention of urine .
17.1	CO5,CO6,CO7	Parental guidelines for duchenne muscular dystrophy.
18.1	CO4,CO5,CO6	Role of genetic counselling for parents.
18.2	CO4,CO5,CO6	AI tools and modern technologies in rare pediatric genetic diseases.
19.1	CO5,CO6,CO7	Continuous care and support for a child with endocrine disorders.
20.1	CO3,CO5,CO6	Diet in Siddha system for skin diseases.
20.2	CO3,CO4	Identification of the basic skin lesions.
21.1	CO5,CO6	Management of foreign body in ear, nose, throat (ENT) and eyes .

21.2	CO5,CO6	Approach to ear pain and conjunctivitis.
22.1	CO5,CO6	Management measures in congenital birth defects.
23.1	CO5,CO6	Demonstration of <i>Thokkanam, Nasiyam, Otradam, Pugai</i> in children.
23.2	CO5,CO6	Demonstration of <i>Poochu, Patru, Pottanam, Mai, Kattu</i> .

Table 5 : List of Practicals

(*Refer table 3 of similar activity number)

Practical No*	CO No	Practical Activity details
1.1	CO1,CO6	Newborn history taking.
1.2	CO1,CO6	Assessment of physical growth.
1.3	CO1,CO6	Assessment of vital signs.
1.4	CO1,CO6	Systemwise examination of newborn.
1.5	CO1,CO6	Common preparatory procedures in clinical examination.
2.1	CO1,CO6	Breast feeding history taking.
2.2	CO1,CO6	Breast examination
2.3	CO1,CO6	Development of weaning plan.
3.1	CO1	Evaluation of immunization records.
3.2	CO1	Documentation of immunization history.
3.3	CO1	Administration of <i>Urai mathirai</i> and <i>Sei nei</i> .
3.4	CO1,CO7	Counselling on Siddha immunization principles.
4.1	CO2,CO6	Assessment of physical growth and vital signs.
4.2	CO2,CO6	Assessment of gross motor developmental milestones.
4.3	CO2,CO6	Assessment of fine motor developmental milestones.
4.4	CO2,CO6	Assessment of language developmental milestones.
4.5	CO2,CO6	Assessment of social and emotional developmental milestones.

5.1	CO2,CO6	Clinical examination of short stature.
5.2	CO2,CO6	Clinical examination of failure to thrive.
5.3	CO2,CO6	Management plan for growth disorders.
6.1	CO2,CO6	Assessment of <i>Envagaithervu</i> , <i>Neerkuri</i> and <i>Neikuri</i> .
6.2	CO2,CO6	Clinical examination of cerebral palsy.
6.3	CO2,CO6	Clinical examination and framing a management plan of autistic spectrum disorders.
7.1	CO2,CO6	Assessment of physical growth and vital signs .
7.2	CO2,CO6	Clinical examination of behavioural problems.
7.3	CO2,CO6	Assessment of behaviour problems.
7.4	CO2,CO6	Interpretation of questionnaires for behaviour problems.
8.1	CO2,CO6	Clinical examination of adolescents.
8.2	CO2,CO6	Management plan for adolescent problems.
9.1	CO1,CO6	Clinical examination in nutritional disorders.
9.2	CO1,CO6	Clinical differentiation of nutritional disorders
9.3	CO1,CO6	Management plan for nutritional disorders.
10.1	CO1	Arrangement of awareness programmes in college campus .
11.1	CO5	Clinical examination to evaluate a child with kzhichal.
11.2	CO1,CO5	Clinical examination to assess <i>akkaram</i> .
12.1	CO5,CO6	Clinical examination to assess respiratory disorders .

13.1	CO5	Clinical examination of Cardio Vascular system.
14.1	CO5	Clinical examination of central nervous system.
14.2	CO1,CO5,CO7	Clinical examination of a child with <i>Bala pakka vatham</i> .
15.1	CO5	Clinical examination to assess infectious diseases.
16.1	CO5,CO6	Clinical examination of genito urinary disorders.
17.1	CO5,CO6	Siddha external therapies for musculo skelatal disorders .
17.2	CO5,CO6	Clinical examination to assess musculo skeletal disorder.
18.1	CO5	Clinical examination to assess genetic disorders.
19.1	CO2	Clinical examination of endocrine disorders.
20.1	CO1,CO5	Clinical examination of <i>Bala karappan</i>
20.2	CO1,CO5	Clinical examination of <i>Sirangu</i> (scabies).
21.1	CO5	Clinical examination to assess ENT and eye diseases
22.1	CO5	Clinical examination to assess congenital birth defects.

Table 6 : Assessment Summary: Assessment is subdivided in A to H points

6 A : Number of Papers and Marks Distribution

Subject Code	Papers	Theory	Practical/Clinical Assessment (150)					Grand Total
			Practical	Viva	Elective	IA	Sub Total	
SIDUG-KM	2	200	100	30	-	20	150	350

6 B : Scheme of Assessment (Formative and Summative)

PROFESSIONAL COURSE	FORMATIVE ASSESSMENT			SUMMATIVE ASSESSMENT
	First Term (1-6 Months)	Second Term (7-12 Months)	Third Term (13-18 Months)	
Third	3 PA & First TT	3 PA & Second TT	3 PA	UE**

PA: Periodical Assessment; **TT:** Term Test; **UE:** University Examinations; **NA:** Not Applicable.

**University Examination shall be on entire syllabus

6 C : Calculation Method for Internal assessment Marks

Term	Periodical Assessment*				Term Test**	Term Assessment	
	A	B	C	D		F	G
	1 (20)	2 (20)	3 (20)	Average (A+B+C/3) (20)	Term Test (MCQ+SAQ+LAQ and Practical) (Converted to 20)	Sub Total	Term Assessment
First						D+E	D+E /2
Second						D+E	D+E /2
Third					NIL		D
Final IA	Average of Three Term Assessment Marks as Shown in 'G' Column						
	* Select an Evaluation Methods which is appropriate for the objectives of Topics from the Table 6 D. Convert it to 20 marks. ** Conduct Theory (100 Marks) (MCQ (20*1 Marks), SAQ (8*5), LAQ (4*10)) and Practical (100 Marks) Then convert to 20 Marks.						

6 D : Evaluation Methods for Periodical Assessment

S. No.	Evaluation Methods
1.	Practical / Clinical Performance
2.	Viva Voce, MCQs, MEQ (Modified Essay Questions/Structured Questions)
3.	Open Book Test (Problem Based)
4.	Summary Writing (Research Papers/ Samhitas)
5.	Class Presentations; Work Book Maintenance
6.	Problem Based Assignment
7.	Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OPSE), Mini Clinical Evaluation Exercise (Mini-CEX), Direct Observation of Procedures (DOP), Case Based Discussion (CBD)
8.	Extra-curricular Activities, (Social Work, Public Awareness, Surveillance Activities, Sports or Other Activities which may be decided by the department).
9.	Small Project
10.	Activities Indicated in Table 3 - Column G3 as per Indicated I, II or III term in column I3.

Topics for Periodic Assessments

Exam type	Paper 1	Paper 2
PA1	Topic No-1	Topic No-11
PA 2	Topic No-2	Topic No-12,
PA 3	Topic No-3	Topic No-13,14
TT 1	Topic No-1,2,3	Topic No-11,12,13,14
PA 4	Topic No-4	Topic No-15
PA 5	Topic No-5	Topic No-16,17
PA 6	Topic No-6,7	Topic No18,19
TT 2	Topic No-4,5,6,7	Topic No-15,16,17,18,19
PA 7	Topic No-8	Topic No-20
PA 8	Topic No-9	Topic No-21
PA 9	Topic No-10	Topic No-22,23

6 E : Question Paper Pattern

III PROFESSIONAL B.S.M.S EXAMINATIONS

SIDUG-KM

PAPER-I

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

		Number of Questions	Marks per question	Total Marks
Q 1	MULTIPLE CHOICE QUESTIONS (MCQ)	20	1	20
Q 2	SHORT ANSWER QUESTIONS (SAQ)	8	5	40
Q 3	LONG ANSWER QUESTIONS (LAQ)	4	10	40
				100

Similar for Paper II.

6 F : Distribution of theory examination

Paper 1 (KUZHANTHAI MARUTHUVAM (PEDIATRICS PAPER) -1)					
Sr. No	A List of Topics	B Marks	MCQ	SAQ	LAQ
1	Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born)	14	Yes	Yes	Yes
2	Pachilam Matrum Ilam Kuzhanthaigalin Unavu (Feeding in Infants and Young children)	9	Yes	Yes	No
3	Vaccine Preventable diseases (Immunization)	7	Yes	Yes	No
4	Kuzhanthaigalin Iyalpana Udal Matrum Thiran Valarchi Nilaigal(Normal growth and development in children)	7	Yes	Yes	No
5	Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children)	16	Yes	Yes	Yes
6	Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children)	16	Yes	Yes	Yes
7	Kuzhanthaigalin Nadathai Kuraipadugal (Behavioural problems in children)	6	Yes	Yes	No
8	Pathin Paruvam (Adolescence)	6	Yes	Yes	No
9	Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders)	17	Yes	Yes	Yes
10	National Health Programmes related to Children	2	Yes	No	No
Total Marks		100			

Paper 2 (KUZHANTHAI MARUTHUVAM (PEDIATRICS) - PAPER II)					
Sr. No	A List of Topics	B Marks	MCQ	SAQ	LAQ
11	Seerana Uruppu Mandala Noigal (Gastro intestinal disorders)	11	Yes	Yes	Yes
12	Suvaasa Noikal (Respiratory Disorders)	11	Yes	Yes	Yes
13	Thamaraga Noikal (Cardio Vascular disorders)	10	Yes	Yes	Yes
14	Narambu mandala Noikal (Neurological disorders)	11	Yes	Yes	Yes
15	Thotru Noikal (Infectious Diseases)	8	Yes	Yes	No
16	Janana Uruppu Mandala Noikal (Genito Urinary Disorders)	5	Yes	Yes	No
17	Thasai Matrum Enbu Kuraipadugal (Musculo skeletal disorders)	10	Yes	Yes	Yes

18	Marabanu Kuraipadugal (Genetic disorders)	7	Yes	Yes	No
19	Naalamillaa Surappigalin Kuraipadugal (Endocrine disorders)	5	Yes	Yes	No
20	Thol Noigal (Skin Diseases)	10	Yes	Yes	Yes
21	Sevi mooku thondai & Kann Noikal (ENT and Eye diseases)	5	Yes	Yes	No
22	Piravi Kuraipaadugal (Congenital birth defects)	5	Yes	Yes	No
23	Varmam Matrum Pura Maruthuvam	2	Yes	No	No
Total Marks		100			

6 G : Instructions for UG Paper Setting & Blue print

1. All questions shall be compulsory.
2. The maximum marks for one question paper shall be 100.
3. Questions shall be drawn based on Table 6F, which provides the topic name, types of questions (MCQ(Multiple Choice Question), SAQ(Short Answer Question), LAQ(Long Answer Question)).
4. The marks assigned in Table 6F for each topic/group of topics shall be considered as the maximum allowable marks for that topic/group of topics.
5. Ensure that the total marks allocated per topic/group of topics do not exceed the limits specified in Table 6F.
6. Refer to Table 6F before setting the questions. Questions shall be framed only from topics where the type is marked as “YES”, and avoided if marked as “NO”.
7. Each 100-mark question paper shall contain:
 - 20 MCQs
 - 8 SAQs
 - 4 LAQs
8. MCQs:
 - Majority shall be drawn from the Must to Know part of the syllabus.
 - Questions from the Desirable to Know part of syllabus shall not exceed 3.
 - Questions from the Nice to Know part of syllabus shall not exceed 2.
9. SAQs:
 - Majority shall be drawn from the Must to Know part of the syllabus.
 - Questions from the Desirable to Know part of syllabus shall not exceed 1.
 - No questions shall be drawn from the Nice to Know part of syllabus.
 - SAQs shall assess understanding, application, and analysis, rather than simple recall.
10. LAQs:
 - All LAQs shall be drawn exclusively from the Must to Know part of the syllabus.
 - No questions shall be taken from the Desirable to Know or Nice to Know part of the syllabus.
 - Number of LAQs should not exceed one per topic unless maximum marks exceed 20 for the topic.
11. Long Answer Questions shall be structured to assess higher cognitive abilities, such as application, analysis, and synthesis.
12. Follow the guidelines in User Manual III for framing MCQs, SAQs, and LAQs.

Demo Blueprint for Illustration. Blue printing should be done based on Instructions for Question paper setting and using 6 F table.

Paper No:1		
Question No	Type of Question	Question Paper Format
Q1	<p>Multiple choice Questions 20 Questions 1 mark each All compulsory</p>	<ol style="list-style-type: none"> 1. Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) / Kuzhanthaigalin Nadathai Kuraipadugal (Behavioural problems in children) / Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Pachilam Matrum Ilam Kuzhanthaigalin Unavu (Feeding in Infants and Young children) 2. National Health Programmes related to Children / Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children) / Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born) 3. Kuzhanthaigalin Nadathai Kuraipadugal (Behavioural problems in children) / Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Pachilam Matrum Ilam Kuzhanthaigalin Unavu (Feeding in Infants and Young children) 4. Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) / Pathin Paruvam (Adolescence) / Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children) / Vaccine Preventable diseases (Immunization) 5. Kuzhanthaigalin Nadathai Kuraipadugal (Behavioural problems in children) / Kuzhanthaigalin Iyalpana Udal Matrum Thiran Valarchi Nilaigal(Normal growth and development in children) / Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born) 6. Pathin Paruvam (Adolescence) / Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Vaccine Preventable diseases (Immunization) 7. Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) / Kuzhanthaigalin Nadathai Kuraipadugal (Behavioural problems in children) / Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children) /

- Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born)
8. Kuzhanthaigalin Nadathai Kuraipadugal (Behavioural problems in children) / Kuzhanthaigalin Iyalpana Udal Matrum Thiran Valarchi Nilaigal(Normal growth and development in children) / Pachilam Matrum Ilam Kuzhanthaigalin Unavu (Feeding in Infants and Young children)
 9. Pathin Paruvam (Adolescence) / Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children) / Vaccine Preventable diseases (Immunization)
 10. Pathin Paruvam (Adolescence) / Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children) / Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born)
 11. Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) / Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Pachilam Matrum Ilam Kuzhanthaigalin Unavu (Feeding in Infants and Young children)
 12. Kuzhanthaigalin Nadathai Kuraipadugal (Behavioural problems in children) / Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children) / Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born)
 13. Pathin Paruvam (Adolescence) / Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children) / Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born)
 14. Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Kuzhanthaigalin Iyalpana Udal Matrum Thiran Valarchi Nilaigal(Normal growth and development in children) / Vaccine Preventable diseases (Immunization)
 15. Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) / Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born)
 16. Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) / Kuzhanthaigalin

		<p>Valarchi Kuraipadugal (Growth disorders in children) / Vaccine Preventable diseases (Immunization)</p> <p>17. Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) / Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Kuzhanthaigalin Iyalpana Udal Matrum Thiran Valarchi Nilaigal(Normal growth and development in children)</p> <p>18. Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) / Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children) / Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born)</p> <p>19. Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children) / Vaccine Preventable diseases (Immunization)</p> <p>20. Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) / Kuzhanthaigalin Nadathai Kuraipadugal (Behavioural problems in children) / Kuzhanthaigalin Iyalpana Udal Matrum Thiran Valarchi Nilaigal(Normal growth and development in children) / Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born)</p>
<p>Q2</p>	<p>Short answer Questions 8 Questions 5 Marks Each All compulsory</p>	<p>1. Kuzhanthaigalin Iyalpana Udal Matrum Thiran Valarchi Nilaigal(Normal growth and development in children) / Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born)</p> <p>2. Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children)</p> <p>3. Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) / Pachilam Matrum Ilam Kuzhanthaigalin Unavu (Feeding in Infants and Young children)</p> <p>4. Pathin Paruvam (Adolescence) / Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children)</p> <p>5. Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born)</p> <p>6. Kuzhanthaigalin Iyalpana Ootachathum</p>

		<p>Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) / Kuzhanthaigalin Nadathai Kuraipadugal (Behavioural problems in children)</p> <p>7. Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children) / Vaccine Preventable diseases (Immunization)</p> <p>8. Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders) / Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children)</p>
Q3	<p>Long answer Questions 4 Questions 10 marks each All compulsory</p>	<p>1. Pachilam Kuzhanthaiyin Paramarippu (Care Of New Born)</p> <p>2. Kuzhanthaigalin Valarchi Kuraipadugal (Growth disorders in children)</p> <p>3. Kuzhanthaigalin Thiran Valarchi Kuraipadugal (Developmental disorders in children)</p> <p>4. Kuzhanthaigalin Iyalpana Ootachathum Ootachathu Kuraipadukalum(Normal Nutrition and Nutritional disorders)</p>
Paper No:2		
Question No	Type of Question	Question Paper Format
Q1	<p>Multiple choice Questions 20 Questions 1 mark each All compulsory</p>	<p>1. Piravi Kuraipaadugal (Congenital birth defects) / Narambu mandala Noikal (Neurological disorders) / Seerana Uruppu Mandala Noigal (Gastro intestinal disorders)</p> <p>2. Varmam Matrum Pura Maruthuvam / Marabanu Kuraipadugal (Genetic disorders) / Thotru Noikal (Infectious Diseases) / Suvaasa Noikal (Respiratory Disorders)</p> <p>3. Naalamillaa Surappigalin Kuraipadugal (Endocrine disorders) / Thasai Matrum Enbu Kuraipadugal (Musculo skeletal disorders) / Narambu mandala Noikal (Neurological disorders)</p> <p>4. Piravi Kuraipaadugal (Congenital birth defects) / Marabanu Kuraipadugal (Genetic disorders) / Suvaasa Noikal (Respiratory Disorders)</p> <p>5. Varmam Matrum Pura Maruthuvam / Thol Noigal (Skin Diseases) / Janana Uruppu Mandala Noikal (Genito Urinary Disorders) / Seerana Uruppu Mandala Noigal (Gastro intestinal disorders)</p> <p>6. Naalamillaa Surappigalin Kuraipadugal (Endocrine disorders) / Thotru Noikal (Infectious Diseases) / Thamaraga Noikal (Cardio Vascular disorders)</p>

7. Piravi Kuraipaadugal (Congenital birth defects) / Thasai Matrum Enbu Kuraipadugal (Musculo skeletal disorders) / Suvaasa Noikal (Respiratory Disorders)
8. Sevi mooku thondai & Kann Noikal (ENT and Eye diseases) / Janana Uruppu Mandala Noikal (Genito Urinary Disorders) / Thamaraga Noikal (Cardio Vascular disorders)
9. Marabanu Kuraipadugal (Genetic disorders) / Narambu mandala Noikal (Neurological disorders) / Seerana Uruppu Mandala Noigal (Gastro intestinal disorders)
10. Sevi mooku thondai & Kann Noikal (ENT and Eye diseases) / Thasai Matrum Enbu Kuraipadugal (Musculo skeletal disorders) / Thamaraga Noikal (Cardio Vascular disorders)
11. Piravi Kuraipaadugal (Congenital birth defects) / Thol Noigal (Skin Diseases) / Narambu mandala Noikal (Neurological disorders) / Seerana Uruppu Mandala Noigal (Gastro intestinal disorders)
12. Sevi mooku thondai & Kann Noikal (ENT and Eye diseases) / Janana Uruppu Mandala Noikal (Genito Urinary Disorders) / Suvaasa Noikal (Respiratory Disorders)
13. Naalamillaa Surappigalin Kuraipadugal (Endocrine disorders) / Thasai Matrum Enbu Kuraipadugal (Musculo skeletal disorders) / Seerana Uruppu Mandala Noigal (Gastro intestinal disorders)
14. Thol Noigal (Skin Diseases) / Janana Uruppu Mandala Noikal (Genito Urinary Disorders) / Thamaraga Noikal (Cardio Vascular disorders)
15. Piravi Kuraipaadugal (Congenital birth defects) / Naalamillaa Surappigalin Kuraipadugal (Endocrine disorders) / Narambu mandala Noikal (Neurological disorders) / Suvaasa Noikal (Respiratory Disorders)
16. Thol Noigal (Skin Diseases) / Janana Uruppu Mandala Noikal (Genito Urinary Disorders) / Seerana Uruppu Mandala Noigal (Gastro intestinal disorders)
17. Sevi mooku thondai & Kann Noikal (ENT and Eye diseases) / Thasai Matrum Enbu Kuraipadugal (Musculo skeletal disorders) / Suvaasa Noikal (Respiratory Disorders)
18. Marabanu Kuraipadugal (Genetic disorders) / Narambu mandala Noikal (Neurological disorders)
19. Thol Noigal (Skin Diseases) / Marabanu

		<p>Kuraipadugal (Genetic disorders) / Thamaraga Noikal (Cardio Vascular disorders)</p> <p>20. Sevi mooku thondai & Kann Noikal (ENT and Eye diseases) / Naalamillaa Surappigalin Kuraipadugal (Endocrine disorders) / Thotru Noikal (Infectious Diseases)</p>
Q2	<p>Short answer Questions 8 Questions 5 Marks Each All compulsory</p>	<ol style="list-style-type: none"> 1. Marabanu Kuraipadugal (Genetic disorders) / Thamaraga Noikal (Cardio Vascular disorders) / Seerana Uruppu Mandala Noigal (Gastro intestinal disorders) 2. Janana Uruppu Mandala Noikal (Genito Urinary Disorders) / Suvaasa Noikal (Respiratory Disorders) 3. Thasai Matrum Enbu Kuraipadugal (Musculo skeletal disorders) / Seerana Uruppu Mandala Noigal (Gastro intestinal disorders) 4. Thotru Noikal (Infectious Diseases) / Suvaasa Noikal (Respiratory Disorders) 5. Thol Noigal (Skin Diseases) / Narambu mandala Noikal (Neurological disorders) 6. Naalamillaa Surappigalin Kuraipadugal (Endocrine disorders) / Thasai Matrum Enbu Kuraipadugal (Musculo skeletal disorders) 7. Thol Noigal (Skin Diseases) / Narambu mandala Noikal (Neurological disorders) 8. Sevi mooku thondai & Kann Noikal (ENT and Eye diseases) / Thamaraga Noikal (Cardio Vascular disorders)
Q3	<p>Long answer Questions 4 Questions 10 marks each All compulsory</p>	<ol style="list-style-type: none"> 1. Thasai Matrum Enbu Kuraipadugal (Musculo skeletal disorders) / Seerana Uruppu Mandala Noigal (Gastro intestinal disorders) 2. Suvaasa Noikal (Respiratory Disorders) 3. Thol Noigal (Skin Diseases) / Thamaraga Noikal (Cardio Vascular disorders) 4. Narambu mandala Noikal (Neurological disorders)

6 H : Distribution of Practical Exam

S.No	Heads	Marks
1	<p>Major - Clinical Examination of the patient through Long Case</p> <p>Duration : 1.30hrs</p> <p>Procedure – Writing the clinical findings as per case sheet model.</p> <p>Complaints & Duration – 5 Marks</p> <p>Pothu Parisothanai (Vital Signs & Anthropometry) – 10 Marks</p> <p>Sirappu Parisothanai – 10 Marks</p> <p>Assessing dearangement in Udaal Thathukkal/ Uyir Thathukkal - 5 Marks</p> <p>Assessment of Ennvagai Thervu – 10 Marks</p> <p>Laboratory Investigations – 5 Marks</p> <p>Noi Kanippu Vivatham – 5 Marks</p> <p>Mukkutra verupadugal - 5 Marks</p> <p>Noi Kanippu - 5 Marks</p> <p>Prescription of one day medicine – 5 Marks</p> <p>Medical & Dietary Advise – 5 Marks</p>	70
2	<p>Minor Clinical</p> <p>Duration : 30 minutes</p> <p>A. Procedure – OPD based Diagnosis -Duration: 20 minutes</p> <p>Complaints & Duration – 2 Marks</p> <p>Pothu Parisothanai – 2 Marks</p> <p>Investigations – 2 Marks</p> <p>Noi Kanippu – 2 Marks</p>	20

	<p>Medical & Dietary Advise – 2 Marks</p> <p>B. Spotters - Duration - 10 minutes</p> <p>Students will identify,interpret and explain clinical findings,instruments,investigations relevant to subject.</p> <p>Spotter 1</p> <p>Identification: - 2.5 marks</p> <p>Interpretation - 2.5 marks</p> <p>Spotter 2</p> <p>Identification: - 2.5 marks</p> <p>Interpretation - 2.5 marks</p>	
3	Case Sheet - Total number of cases to be documented in case sheet is 10	10
4	Viva - The internal and external examiners will conduct the viva, each awarding 15 marks, for a total of 30 marks.	30
5	Internal Assessment	20
Total Marks		150

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Abbreviations

Domain		T L Method		Level		Assessment		Integration	
CK	Cognitive/Knowledge	L	Lecture	K	Know	T-CS	Theory case study	V-SATV	V-SATV
CC	Cognitive/Comprehension	L&PPT	Lecture with PowerPoint presentation	KH	Knows how	T-OBT	Theory open book test	V-UK	V-UK
CAP	Cognitive/Application	L&GD	Lecture & Group Discussion	SH	Shows how	P-VIVA	Practical Viva	V-UT	V-UT
CAN	Cognitive/Analysis	L_VC	Lecture with Video clips	D	Does	P-REC	Practical Recitation	V-UV	V-UV
CS	Cognitive/Synthesis	REC	Recitation			P-EXAM	Practical exam	V-NU	V-NU
CE	Cognitive/Evaluation	SY	Symposium			PRN	Presentation	V-MT	V-MT
PSY-SET	Psychomotor/Set	TUT	Tutorial			P-PRF	Practical Performance	V-GMM	V-GMM
PSY-GUD	Psychomotor/Guided response	DIS	Discussions			P-SUR	Practical Survey	V-GMK	V-GMK
PSY-MEC	Psychomotor/Mechanism	BS	Brainstorming			P-EN	Practical enact	V-SSM-NM	V-SSM-NM
PSY-ADT	Psychomotor Adaptation	IBL	Inquiry-Based Learning			P-RP	Practical Role play	V-NN1	V-NN1
PSY-ORG	Psychomotor/Origination	PBL	Problem-Based Learning			P-MOD	Practical Model	V-NN2	V-NN2
AFT-REC	Affective/ Receiving	CBL	Case-Based Learning			P-POS	Practical Poster	V-NAVO	V-NAVO
AFT-RES	Affective/Responding	PrBL	Project-Based Learning			P-CASE	Practical Case taking	H-MM	H-MM
AFT-VAL	Affective/Valuing	TBL	Team-Based Learning			P-ID	Practical identification	H-VPS	H-VPS
AFT-SET	Affective/Organization	TPW	Team Project Work			P-PS	Practical Problem solving	H-AM	H-AM
AFT-CHR	Affective/ characterization	FC	Flipped Classroom			QZ	Quiz	H-SMM	H-SMM
PSY-PER	Psychomotor/perception	BL	Blended Learning			PUZ	Puzzles	H-KM	H-KM
PSY-COR	Psychomotor/ Complex Overt Response	EDU	Edutainment			CL-PR	Class Presentation	H-RM	H-RM
		ML	Mobile Learning			DEB	Debate		
		ECE	Early Clinical Exposure			WP	Word puzzle		
		SIM	Simulation			O-QZ	Online quiz		
		RP	Role Plays			O-GAME	Online game-based assessment		
		SDL	Self-directed learning			M-MOD	Making of Model		
		PSM	Problem-Solving Method			M-CHT	Making of Charts		

		KL	Kinaesthetic Learning			M-POS	Making of Posters		
		W	Workshops			C-INT	Conducting interview		
		GBL	Game-Based Learning			INT	Interactions		
		LS	Library Session			CR-RED	Critical reading papers		
		PL	Peer Learning			CR-W	Creativity Writing		
		RLE	Real-Life Experience			C-VC	Clinical video cases		
		PER	Presentations			SP	Simulated patients		
		D-M	Demonstration on Model			PM	Patient management problems		
		PT	Practical			CHK	Checklists		
		X-Ray	X-ray Identification			Mini-CEX	Mini-CEX		
		CD	Case Diagnosis			DOPS	DOPS		
		LRI	Lab Report Interpretation			CWS	CWS		
		DA	Drug Analysis			RS	Rating scales		
		D	Demonstration			RK	Record keeping		
		D-BED	Demonstration Bedside			COM	Compilations		
		DL	Demonstration Lab			Portfolios	Portfolios		
		DG	Demonstration Garden			Log book	Log book		
		FV	Field Visit			TR	Trainers report		
						SA	Self-assessment		
						PA	Peer assessment		
						360D	360-degree evaluation		
						PP-Practical	Practical		
						VV-Viva	Viva		
						DOAP	Demonstration Observation Assistance Performance		
						SBA	Scenario Based Assessment		
						CBA	Case based Assessment		
						S-LAQ	Structured LAQ		
						OSCE	Objective Structured Clinical Examination		
						OSPE	Objective Structured Practical Examination		

						DOPS	Direct observation of procedural skills		
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