

**PEDIATRICS (CODE: PE)**

| Number  | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C                    | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods                        | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---|---|--------------------------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|----------------------|---------------------------|
| <b>PEDIATRICS</b>                               |   |                                      |                        |             |   |                                 |                                       |                      |                           |
| <b>Topic: Normal Growth and Development</b>     |   | <b>Number of competencies : (07)</b> |                        |             | <b>Number of procedures that require certification: (02)</b>  |                                 |                                       |                      |                           |
| PE1.1   | Define the terminologies Growth and development and discuss the factors affecting normal growth and development   | K                                    | KH                     | Y           | Lecture, Small group discussion                               | Written/ Viva voce              |                                       |                      |                           |
| PE1.2   | Discuss and describe the patterns of growth in infants, children and adolescents  | K                                    | KH                     | Y           | Lecture, Small group discussion                               | Written/ Viva voce              |                                       |                      | Psychiatry                |
| PE1.3   | Discuss and describe the methods of assessment of growth including use of WHO and Indian national standards. Enumerate the parameters used for assessment of physical growth in infants, children and adolescents | K                                    | KH                     | Y           | Lecture, Small group discussion                               | Written/ Viva voce              |                                       |                      | Psychiatry                |
| PE1.4   | Perform Anthropometric measurements, document in growth charts and interpret  | S                                    | P                      | Y           | Small group discussion  | Document in Log book            | 3                                     |                      |                           |
| PE1.5   | Define development and discuss the normal developmental mile stones with respect to motor, behaviour, social, adaptive and language   | K                                    | KH                     | Y           | Lecture, Small group discussion                               | Written/ Viva voce              |                                       |                      | Psychiatry                |
| PE1.6   | Discuss the methods of assessment of development  | K                                    | KH                     | Y           | Lecture, Small group discussion                               | Written/ Viva voce              |                                       |                      |                           |
| PE1.7   | Perform Developmental assessment and interpret  | S                                    | P                      | N           | Bedside clinics, Skills Lab                                   | Document in Log book            | 3                                     |                      |                           |
| <b>Topic: Common problems related to Growth</b> |   | <b>Number of competencies:(06)</b>   |                        |             | <b>Number of procedures that require certification: (NIL)</b> |                                 |                                       |                      |                           |
| PE2.1   | Discuss the etio-pathogenesis, clinical features and management of a child who fails to thrive  | K                                    | KH                     | Y           | Lecture, Small group discussion                               | Written/ Viva voce              |                                       |                      |                           |
| PE2.2   | Assessment of a child with failing to thrive including eliciting an appropriate history and examination   | S                                    | SH                     | Y           | Bedside clinics   | Skills Station                  |                                       |                      |                           |

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|--|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|------------------------------------|
| PE2.3  | Counselling a parent with failing to thrive child  | A/C               | SH                     | Y           | OSPE                                     | Document in Log book            |                                       | AETCOM               |                                    |
| PE2.4  | Discuss the etio-pathogenesis, clinical features and management of a child with short stature                                | K                 | KH                     | Y           | Lecture, Small group discussion          | Written/ Viva voce              |                                       |                      |                                    |
| PE2.5  | Assessment of a child with short stature:<br>Elicit history, perform examination, document and present                       | S                 | SH                     | Y           | Bedside clinics,<br>Skill lab            | Skill Assessment                |                                       |                      |                                    |
| PE2.6  | Enumerate the referral criteria for growth related problems  | K                 | K                      | Y           | Small group discussion                   | Written/ Viva voce              |                                       |                      |                                    |
| <b>Topic: Common problems related to Development -1 (Developmental delay , Cerebral palsy)</b><br><b>Number of competencies:(08)      Number of procedures that require certification: (NIL)</b> |  |                   |                        |             |  |                                 |                                       |                      |                                    |
| PE3.1  | Define, enumerate and discuss the causes of developmental delay and disability including intellectual disability in children | K                 | K                      | Y           | Lecture, Small group discussion          | Written/ Viva voce              |                                       |                      |                                    |
| PE3.2  | Discuss the approach to a child with developmental delay   | K                 | K                      | Y           | Lecture, Small group discussion          | Written/ Viva voce              |                                       |                      |                                    |
| PE3.3  | Assessment of a child with developmental delay - Elicit document and present history   | S                 | SH                     | Y           | Bedside clinics,<br>Skills lab           | Skill Assessment                |                                       |                      |                                    |
| PE3.4  | Counsel a parent of a child with developmental delay   | S                 | SH                     | Y           | DOAP session                             | Document in Log Book            |                                       |                      |                                    |
| PE3.5  | Discuss the role of the child developmental unit in management of developmental delay  | K                 | K                      | N           | Lecture, Small group discussion          | Written/ Viva voce              |                                       | Community Medicine   |                                    |
| PE3.6  | Discuss the referral criteria for children with developmental delay  | K                 | K                      | Y           | Lecture, Small group discussion          | Written/ Viva voce              |                                       |                      |                                    |
| PE3.7  | Visit a Child Developmental Unit and observe its functioning   | S                 | KH                     | Y           | Lecture, Small group discussion          | Log book Entry                  |                                       | Community Medicine   |                                    |
| PE3.8  | Discuss the etio-pathogenesis, clinical presentation and multi-disciplinary approach in the management of Cerebral palsy     | K                 | KH                     | Y           | Lecture, Small group,<br>Bedside clinics | Written/ Viva voce              |                                       |                      | Physical Medicine & Rehabilitation |

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|---|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| <b>Topic: Common problems related to Development-2 (Scholastic backwardness, Learning Disabilities , Autism , ADHD)</b><br><b>Number of competencies: (06)</b> <span style="float: right;"><b>Number of procedures that require certification: (NIL)</b></span> |   |                   |                        |             |  |                                 |                                       |                      |                           |
| PE4.1   | Discuss the causes and approach to a child with scholastic backwardness   | K                 | K                      | N           | Lecture, Small group discussion        | Written                         |                                       |                      |                           |
| PE4.2   | Discuss the etiology, clinical features, diagnosis and management of a child with Learning Disabilities                           | K                 | K                      | N           | Lecture, Small group discussion        | Written                         |                                       |                      |                           |
| PE4.3   | Discuss the etiology, clinical features, diagnosis and management of a child with Attention Deficit Hyperactivity Disorder (ADHD) | K                 | K                      | N           | Lecture, Small group discussion        | Written                         |                                       |                      |                           |
| PE4.4   | Discuss the etiology, clinical features, diagnosis and management of a child with Autism  | K                 | K                      | N           | Lecture, Small group discussion        | Written                         |                                       |                      |                           |
| PE4.5   | Discuss the role of Child Guidance clinic in children with Developmental problems   | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Psychiatry           |                           |
| PE4.6   | Visit to the Child Guidance Clinic  | S                 | KH                     | N           | Lecture, Small group discussion        | Document in Log Book            |                                       |                      |                           |
| <b>Topic: Common problems related to behavior</b> <span style="float: right;"><b>Number of procedures that require certification: (NIL)</b></span><br><b>Number of competencies: ( 11)</b>  |   |                   |                        |             |  |                                 |                                       |                      |                           |
| PE5.1   | Describe the clinical features, diagnosis and management of thumb sucking   | K                 | K                      | N           | Lecture, Small group discussion        | Written                         |                                       |                      |                           |
| PE5.2   | Describe the clinical features, diagnosis and management of Feeding problems  | K                 | K                      | N           | Lecture, Small group discussion        | Written                         |                                       |                      |                           |
| PE5.3   | Describe the clinical features, diagnosis and management of nail biting   | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE5.4   | Describe the clinical features, diagnosis and management of Breath Holding spells   | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      | Psychiatry                |

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| PE5.5  | Describe the clinical features, diagnosis and management of temper tantrums                               | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      | Psychiatry                |
| PE5.6  | Describe the clinical features, diagnosis and management of Pica  | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE5.7  | Describe the clinical features, diagnosis and management of Fussy infant                                  | K                 | K                      | N           | Lecture, Small group discussion        | Written                         |                                       |                      | Psychiatry                |
| PE5.8  | Discuss the etiology, clinical features and management of Enuresis  | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE5.9  | Discuss the etiology, clinical features and management of Encopresis                                      | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE5.10 | Discuss the role of child guidance clinic in children with behavioural problems and the referral criteria | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      | Psychiatry                |
| PE5.11 | Visit to Child Guidance Clinic and observe functioning  | K                 | KH                     | N           | Lecture, Small group discussion        | Document in Log Book            |                                       |                      |                           |

**Topic: Adolescent Health & common problems related to Adolescent Health**      **Number of competencies: (13)**      **Number of procedures that require certification: (NIL)**

|       |   |   |    |   |                                 |                    |  |  |            |
|-------|---|---|----|---|---------------------------------|--------------------|--|--|------------|
| PE6.1 | Define Adolescence and stages of adolescence  | K | K  | Y | Lecture, Small group discussion | Written/ Viva voce |  |  |            |
| PE6.2 | Describe the physical, physiological and psychological changes during adolescence (Puberty) | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce |  |  | Psychiatry |
| PE6.3 | Discuss the general health problems during adolescence                                      | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce |  |  |            |
| PE6.4 | Describe adolescent sexuality and common problems related to it                             | K | KH | N | Lecture, Small group discussion | Written/ Viva voce |  |  | Psychiatry |
| PE6.5 | Explain the Adolescent Nutrition and common nutritional problems                            | K | KH | Y | Lecture, Small group discussion | Written/ Viva voce |  |  | Psychiatry |

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|---|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE6.6   | Discuss the common Adolescent eating disorders (Anorexia Nervosa, Bulimia)   | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      | Psychiatry                |
| PE6.7   | Describe the common mental health problems during adolescence  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      | Psychiatry                |
| PE6.8   | Respecting patient privacy and maintaining confidentiality while dealing with adolescence  | A                 | SH                     | Y           | Bedside clinics                        | Document in log book            |                                       |                      | AETCOM                    |
| PE6.9   | Perform routine Adolescent Health check up including eliciting history, performing examination including SMR (Sexual Maturity Rating), growth assessments (using Growth charts) and systemic exam including thyroid and Breast exam and the HEADSS screening | S                 | SH                     | Y           | Bedside clinics                        | Skills station                  |                                       |                      |                           |
| PE6.10  | Discuss the objectives and functions of AFHS (Adolescent Friendly Health Services) and the referral criteria   | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE6.11  | Visit to the Adolescent Clinic   | S                 | KH                     | Y           | DOAP session                           | Document in Log Book            |                                       |                      |                           |
| PE6.12  | Enumerate the importance of obesity and other NCD in adolescents   | K                 | K                      | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE6.13  | Enumerate the prevalence and the importance of recognition of sexual drug abuse in adolescents and children  | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      | Psychiatry                |
| <p><b>Topic: To promote and support optimal Breast feeding for Infants      Number of competencies: (11)      Number of procedures that require certification: (01)</b></p> |  |                   |                        |             |  |                                 |                                       |                      |                           |
| PE7.1   | Awareness on the cultural beliefs and practices of breast feeding  | K                 | K                      | N           | Lecture, Small group discussion        | Viva                            |                                       |                      | Obstetrics & Gynaecology  |
| PE7.2   | Explain the physiology of lactation  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Physiology           |                           |

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|--|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|----------------------------------|
| PE7.3  | Describe the composition and types of breast milk and discuss the differences between cow's milk and Human milk   | K                 | KH                     | Y           | Lecture, debate                        | Written/ Viva voce              |                                       | Physiology           |                                  |
| PE7.4  | Discuss the advantages of breast milk   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                                  |
| PE7.5  | Observe the correct technique of breast feeding and distinguish right from wrong techniques   | S                 | P                      | Y           | Bedside clinics, Skills lab            | Skill Assessment                | 3                                     |                      |                                  |
| PE7.6  | Enumerate the baby friendly hospital initiatives  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                                  |
| PE7.7  | Perform breast examination and identify common problems during lactation such as retracted nipples, cracked nipples, breast engorgement, breast abscess | S                 | SH                     | Y           | Bedside clinics, Skill Lab             | Skill Assessment                |                                       |                      | Obstetrics & Gynaecology, AETCOM |
| PE7.8  | Educate mothers on ante natal breast care and prepare mothers for lactation   | A/C               | SH                     | Y           | DOAP session                           | Document in Log Book            |                                       |                      | AETCOM                           |
| PE7.9  | Educate and counsel mothers for best practices in Breast feeding  | A/C               | SH                     | Y           | DOAP session                           | Document in Log Book            |                                       |                      | Obstetrics & Gynaecology, AETCOM |
| PE7.10   | Respects patient privacy  | A                 | SH                     | Y           | DOAP session                           | Document in Log Book            |                                       |                      | AETCOM                           |
| PE7.11   | Participate in Breast Feeding Week Celebration  | A                 | SH                     | Y           | DOAP session                           | Document in Log Book            |                                       |                      |                                  |
| <b>Topic: Complementary Feeding</b> <span style="margin-left: 200px;"><b>Number of competencies : (05)</b></span> <span style="margin-left: 200px;"><b>Number of procedures that require certification: (NIL)</b></span> |   |                   |                        |             |  |                                 |                                       |                      |                                  |
| PE8.1  | Define the term Complementary Feeding   | K                 | K                      | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Community Medicine   |                                  |

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|--------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE8.2  | Discuss the principles, the initiation, attributes, frequency, techniques and hygiene related to Complementary Feeding including IYCF | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Community Medicine   |                           |
| PE8.3  | Enumerate the common complimentary foods  | K                 | K                      | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Community Medicine   |                           |
| PE8.4  | Elicit history on the Complementary Feeding habits  | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill Assessment                |                                       | Community Medicine   |                           |
| PE8.5  | Counsel and educate mothers on the best practices in Complimentary Feeding  | A/C               | SH                     | Y           | DOAP session                           | Document in Log Book            |                                       | Community Medicine   |                           |

**Topic: Normal nutrition, assessment and monitoring**

**Numbcompetencies : (07)**

**Number of procedures that require certification: (NIL)**

|       |   |   |    |   |   |                    |  |                                  |  |
|-------|---|---|----|---|---|--------------------|--|----------------------------------|--|
| PE9.1 | Describe the age related nutritional needs of infants, children and adolescents including micronutrients and vitamins       | K | KH | Y | Lecture, Small group discussion         | Written/ Viva voce |  | Community Medicine, Biochemistry |  |
| PE9.2 | Describe the tools and methods for assessment and classification of nutritional status of infants, children and adolescents | K | KH | Y | Lecture, Small group discussion         | Written/ Viva voce |  | Community Medicine               |  |
| PE9.3 | Explains the Calorific value of common Indian foods   | K | K  | Y | Lecture, Small group discussion         | Written/ Viva voce |  | Biochemistry                     |  |
| PE9.4 | Elicit document and present an appropriate nutritional history and perform a dietary recall                                 | S | SH | Y | Bedside clinic, Skills lab              | Skill Assessment   |  | Community Medicine               |  |
| PE9.5 | Calculate the age related calorie requirement in Health and Disease and identify gap  | S | SH | Y | Bedside clinics, Small group discussion | Skill assessment   |  | Community Medicine               |  |
| PE9.6 | Assess and classify the nutrition status of infants, children and adolescents and recognize deviations                      | S | SH | Y | Bedside clinic, Small group discussion  | Skill Assessment   |  | Community Medicine               |  |



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| PE9.7  | Plan an appropriate diet in health and disease  | S                 | SH                     | N           | Bedside clinic, Small group discussion | Document in logbook             |                                       | Community Medicine                  |                           |
| <b>Topic: Provide nutritional support , assessment and monitoring for common nutritional problems</b><br><b>Number of competencies: (06)</b> <b>Number of procedures that require certification: (NIL)</b> |   |                   |                        |             |  |                                 |                                       |                                     |                           |
| PE10.1   | Define and describe the etio-pathogenesis, classify including WHO classification, clinical features, complication and management of Severe Acute Malnourishment (SAM) and Moderate Acute Malnutrition (MAM) | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Physiology, Biochemistry            |                           |
| PE10.2   | Outline the clinical approach to a child with SAM and MAM   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Physiology, Biochemistry            |                           |
| PE10.3   | Assessment of a patient with SAM and MAM, diagnosis, classification and planning management including hospital and community based intervention, rehabilitation and prevention                              | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill station                   |                                       | Physiology, Biochemistry            |                           |
| PE10.4   | Identify children with under nutrition as per IMNCI criteria and plan referral  | S                 | SH                     | Y           | DOAP session                           | Document in log book            |                                       | Community Medicine                  |                           |
| PE10.5   | Counsel parents of children with SAM and MAM  | S                 | SH                     | Y           | Bedside clinic, Skills Station         | Document in Log book            |                                       | AETCOM                              |                           |
| PE10.6   | Enumerate the role of locally prepared therapeutic diets and ready to use therapeutic diets   | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                                     |                           |
| <b>Topic: Obesity in children</b> <b>Number of competencies: (06)</b> <b>Number of procedures that require certification: (01)</b>   |   |                   |                        |             |  |                                 |                                       |                                     |                           |
| PE11.1   | Describe the common etiology, clinical features and management of obesity in children   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Physiology, Biochemistry, Pathology |                           |

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| PE11.2   | Discuss the risk approach for obesity and discuss the prevention strategies   | K                 | KH                     | Y           | Lecture, Small group discussion                      | Written/ Viva voce              |                                       | Physiology,<br>Pathology |                           |
| PE11.3   | Assessment of a child with obesity with regard to eliciting history including physical activity, charting and dietary recall                            | S                 | SH                     | Y           | Bedside clinics,<br>Standardized patients            | Document in log book            |                                       |                          |                           |
| PE11.4   | Examination including calculation of BMI, measurement of waist hip ratio, identifying external markers like acanthosis, striae, pseudogynaecomastia etc | S                 | SH                     | Y           | Bedside clinics,<br>Standardized patients,<br>Videos | Skills Station                  |                                       |                          |                           |
| PE11.5   | Calculate BMI, document in BMI chart and interpret  | S                 | P                      | Y           | Bedside clinics,<br>Small group discussion           | Document in log book            | 3                                     |                          |                           |
| PE11.6   | Discuss criteria for referral   | K                 | K                      | Y           | Small group discussion                               | Viva voce                       |                                       |                          |                           |
| <b>Topic: Micronutrients in Health and disease-1 (Vitamins ADEK, B Complex and C)</b><br><b>Number of competencies: (21)</b> <b>Number of procedures that require certification: (NIL)</b> |   |                   |                        |             |  |                                 |                                       |                          |                           |
| PE12.1   | Discuss the RDA, dietary sources of Vitamin A and their role in Health and disease  | K                 | K                      | Y           | Lecture, Small group discussion                      | Written/ Viva voce              |                                       | Biochemistry             |                           |
| PE12.2   | Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin A  | K                 | KH                     | Y           | Lecture, Small group discussion                      | Written/ Viva voce              |                                       | Biochemistry             |                           |
| PE12.3   | Identify the clinical features of dietary deficiency / excess of Vitamin A  | S                 | SH                     | Y           | Bedside clinics, Small group discussion              | Document in log book            |                                       | Biochemistry             |                           |
| PE12.4   | Diagnose patients with Vitamin A deficiency, classify and plan management   | S                 | SH                     | N           | Bedside clinics, Skill Station                       | Document in log book            |                                       | Biochemistry             |                           |
| PE12.5   | Discuss the Vitamin A prophylaxis program and their recommendations   | K                 | K                      | Y           | Lecture, Small group discussion                      | Written/ Viva voce              |                                       | Biochemistry             |                           |

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|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|-------------------------------------|---------------------------|
| PE12.6  | Discuss the RDA, dietary sources of Vitamin D and their role in health and disease  | K                 | K                      | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry                        |                           |
| PE12.7  | Describe the causes, clinical features, diagnosis and management of Deficiency / excess of Vitamin D (Rickets and Hypervitaminosis D) | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry, Physiology, Pathology |                           |
| PE12.8  | Identify the clinical features of dietary deficiency of Vitamin D   | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Document in log book            |                                       | Biochemistry, Physiology, Pathology |                           |
| PE12.9  | Assess patients with Vitamin D deficiency, diagnose, classify and plan management   | S                 | SH                     | Y           | Bedside clinics                        | Document in log book            |                                       | Biochemistry, Physiology, Pathology |                           |
| PE12.10 | Discuss the role of screening for Vitamin D deficiency  | K                 | K                      | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                                     |                           |
| PE12.11 | Discuss the RDA, dietary sources of Vitamin E and their role in health and disease  | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry                        |                           |
| PE12.12 | Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin E   | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry                        |                           |
| PE12.13 | Discuss the RDA, dietary sources of Vitamin K and their role in health and disease  | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry, Physiology, Pathology |                           |
| PE12.14 | Describe the causes, clinical features, diagnosis management and prevention of deficiency of Vitamin K                                | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry, Physiology, Pathology |                           |
| PE12.15 | Discuss the RDA, dietary sources of Vitamin B and their role in health and disease  | K                 | K                      | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry                        |                           |
| PE12.16 | Describe the causes, clinical features, diagnosis and management of deficiency of B complex Vitamins                                  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry                        |                           |

| Number  | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE12.17 | Identify the clinical features of Vitamin B complex deficiency                                       | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Document in log book            |                                       | Biochemistry         |                           |
| PE12.18 | Diagnose patients with Vitamin B complex deficiency and plan management                              | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Document in log book            |                                       | Biochemistry         |                           |
| PE12.19 | Discuss the RDA , dietary sources of Vitamin C and their role in Health and disease                  | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry         |                           |
| PE12.20 | Describe the causes, clinical features, diagnosis and management of deficiency of Vitamin C (scurvy) | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry         |                           |
| PE12.21 | Identify the clinical features of Vitamin C deficiency   | S                 | SH                     | N           | Bedside clinics, Skill lab             | Document in log book            |                                       | Biochemistry         |                           |

**Topic: Micronutrients in Health and disease -2: Iron, Iodine, Calcium, Magnesium**

**Number of competencies: (14)**

**Number of procedures that require certification: (NIL)**

|        |   |   |    |   |  |                      |  |                                  |  |
|--------|---|---|----|---|--|----------------------|--|----------------------------------|--|
| PE13.1 | Discuss the RDA, dietary sources of Iron and their role in health and disease     | K | K  | Y | Lecture, Small group discussion        | Written/ Viva voce   |  | Pathology, Biochemistry          |  |
| PE13.2 | Describe the causes, diagnosis and management of Fe deficiency                    | K | KH | Y | Lecture, Small group discussion        | Written/ Viva voce   |  | Pathology, Biochemistry          |  |
| PE13.3 | Identify the clinical features of dietary deficiency of Iron and make a diagnosis | S | SH | Y | Bedside clinics, Skills lab            | Document in log book |  | Pathology, Biochemistry          |  |
| PE13.4 | Interpret hemogram and Iron Panel   | S | SH | Y | Bedside clinic, Small group discussion | Skill Assessment     |  | Pathology, Biochemistry          |  |
| PE13.5 | Propose a management plan for Fe deficiency anaemia                               | S | SH | Y | Bedside clinics, Skills lab            | Skill Assessment     |  | Pathology, Pharmacology          |  |
| PE13.6 | Discuss the National anaemia control program and its recommendations              | K | K  | Y | Lecture, Small group discussion        | Written/ Viva voce   |  | Pharmacology, Community Medicine |  |

| Number  | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration             | Horizontal<br>Integration |
|---|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------------------|---------------------------|
| PE13.7  | Discuss the RDA , dietary sources of Iodine and their role in Health and disease                     | K                 | K                      | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry                     |                           |
| PE13.8  | Describe the causes, diagnosis and management of deficiency of Iodine                                | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry                     |                           |
| PE13.9  | Identify the clinical features of Iodine deficiency disorders  | S                 | SH                     | N           | Lecture, Bedside clinic                | Written/ Viva voce              |                                       | Biochemistry                     |                           |
| PE13.10   | Discuss the National Goiter Control program and their recommendations                                | K                 | K                      | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry, Community Medicine |                           |
| PE13.11   | Discuss the RDA, dietary sources of Calcium and their role in health and disease                     | K                 | K                      | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry                     |                           |
| PE13.12   | Describe the causes, clinical features, diagnosis and management of Ca Deficiency                    | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry                     |                           |
| PE13.13   | Discuss the RDA, dietary sources of Magnesium and their role in health and disease                   | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry                     |                           |
| PE13.14   | Describe the causes, clinical features, diagnosis and management of Magnesium Deficiency             | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry                     |                           |
| <b>Topic: Toxic elements and free radicals and oxygen toxicity</b> <span style="margin-left: 150px;"><b>Number of competencies: (05)</b></span> <span style="margin-left: 150px;"><b>Number of procedures that require certification (NIL)</b></span> |  |                   |                        |             |  |                                 |                                       |                                  |                           |
| PE14.1  | Discuss the risk factors, clinical features, diagnosis and management of Lead Poisoning              | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pharmacology                     |                           |
| PE14.2  | Discuss the risk factors, clinical features, diagnosis and management of Kerosene ingestion          | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | ENT                              |                           |
| PE14.3  | Discuss the risk factors, clinical features, diagnosis and management of Organophosphorous poisoning | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pharmacology                     | General Medicine          |

| Number   | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods  | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|--|--|-------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE14.4   | Discuss the risk factors, clinical features, diagnosis and management of paracetamol poisoning   | K                 | KH                     | N           | Lecture, Small group discussion         | Written/ Viva voce              |                                       | Pharmacology         |                           |
| PE14.5   | Discuss the risk factors, clinical features, diagnosis and management of Oxygen toxicity   | K                 | KH                     | N           | Lecture, Small group discussion         | Written/ Viva voce              |                                       |                      |                           |
| <b>Topic: Fluid and electrolyte balance</b> <span style="margin-left: 200px;"><b>Number of competencies:(07)</b></span> <span style="margin-left: 200px;"><b>Number of procedures that require certification:(NIL)</b></span>  |  |                   |                        |             |   |                                 |                                       |                      |                           |
| PE15.1   | Discuss the fluid and electrolyte requirement in health and disease  | K                 | KH                     | Y           | Lecture, Small group discussion         | Written/ Viva voce              |                                       |                      |                           |
| PE15.2   | Discuss the clinical features and complications of fluid and electrolyte imbalance and outline the management                            | K                 | KH                     | Y           | Lecture, Small group discussion         | Written/ Viva voce              |                                       |                      |                           |
| PE15.3   | Calculate the fluid and electrolyte requirement in health  | S                 | SH                     | Y           | Bedside clinics, Small group discussion | Skill Assessment                |                                       |                      |                           |
| PE15.4   | Interpret electrolyte report   | S                 | SH                     | Y           | Bedside clinics, Small group discussion | Skill Assessment                |                                       |                      |                           |
| PE15.5   | Calculate fluid and electrolyte imbalance  | S                 | SH                     | Y           | Bedside clinics, Small group discussion | Skill Assessment                |                                       |                      |                           |
| PE15.6   | Demonstrate the steps of inserting an IV cannula in a model  | S                 | SH                     | Y           | Skills Lab                              | mannequin                       |                                       |                      |                           |
| PE15.7   | Demonstrate the steps of inserting an interosseous line in a mannequin   | S                 | SH                     | Y           | Skills Lab                              | mannequin                       |                                       |                      |                           |
| <b>Topic: Integrated Management of Neonatal and Childhood Illnesses (IMNCI) Guideline</b> <span style="margin-left: 200px;"><b>Number of competencies:(03)</b></span> <span style="margin-left: 200px;"><b>Number of procedures that require certification: (NIL)</b></span> |  |                   |                        |             |   |                                 |                                       |                      |                           |
| PE16.1   | Explain the components of Integrated Management of Neonatal and Childhood Illnesses (IMNCI) guidelines and method of Risk stratification | K                 | KH                     | Y           | Lecture, Small group discussion         | Written/ Viva voce              |                                       |                      |                           |

| Number  | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE16.2  | Assess children <2 months using IMNCI Guidelines  | S                 | SH                     | Y           | DOAP session                           | Document in log Book            |                                       |                      |                           |
| PE16.3  | Assess children >2 to 5 years using IMNCI guidelines and Stratify Risk  | S                 | SH                     | Y           | DOAP session                           | Document in log Book            |                                       |                      |                           |
| <b>Topic: The National Health programs, NHM</b> <span style="margin-left: 150px;"><b>Number of competencies:(02)</b></span> <span style="margin-left: 150px;"><b>Number of procedures that require certification: (NIL)</b></span>  |   |                   |                        |             |  |                                 |                                       |                      |                           |
| PE17.1  | State the vision and outline the goals, strategies and plan of action of NHM and other important national programs pertaining to maternal and child health including RMNCH A+, RBSK, RKSK, JSSK mission Indradhanush and ICDS | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Community Medicine   |                           |
| PE17.2  | Analyse the outcomes and appraise the monitoring and evaluation of NHM  | K                 | KH                     | Y           | Debate                                 | Written/ Viva voce              |                                       | Community Medicine   |                           |
| <b>Topic: The National Health Programs: RCH</b> <span style="margin-left: 150px;"><b>Number of competencies: (08)</b></span> <span style="margin-left: 150px;"><b>Number of procedures that require certification: (NIL)</b></span> |   |                   |                        |             |  |                                 |                                       |                      |                           |
| PE18.1  | List and explain the components, plan, outcome of Reproductive Child Health (RCH) program and appraise its monitoring and evaluation  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Community Medicine   | Obstetrics & Gynaecology  |
| PE18.2  | Explain preventive interventions for child survival and safe motherhood   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Community Medicine   | Obstetrics & Gynaecology  |
| PE18.3  | Conduct Antenatal examination of women independently and apply at-risk approach in antenatal care   | S                 | SH                     | Y           | Bedside clinics                        | Skill station                   |                                       | Community Medicine   | Obstetrics & Gynaecology  |
| PE18.4  | Provide intra-natal care and conduct a normal delivery in a simulated environment   | S                 | SH                     | Y           | DOAP session, Skills lab               | Document in Log Book            |                                       | Community Medicine   | Obstetrics & Gynaecology  |
| PE18.5  | Provide intra-natal care and observe the conduct of a normal delivery   | S                 | SH                     | Y           | DOAP session                           | Document in Log Book            |                                       |                      | Obstetrics & Gynaecology  |

| Number  | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration                           | Horizontal<br>Integration |
|---|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|---------------------------|
| PE18.6  | Perform Postnatal assessment of newborn and mother, provide advice on breast feeding, weaning and on family planning   | S                 | SH                     | Y           | Bed side clinics, Skill Lab            | Skill Assessment                |                                       | Community Medicine                             | Obstetrics & Gynaecology  |
| PE18.7  | Educate and counsel caregivers of children   | A                 | SH                     | Y           | Postnatal ward, standardized patient   | Skill Assessment                |                                       | AETCOM   |                           |
| PE18.8  | Observe the implementation of the program by visiting the Rural Health Centre  | S                 | KH                     | Y           | Bed side clinics, Skill Lab            | Document in log book            |                                       | Community Medicine                             | Obstetrics & Gynaecology  |
| <b>Topic: National Programs, RCH - Universal Immunizations program      Number of competencies: (16)      Number of procedures that require certification: (01)</b> |  |                   |                        |             |  |                                 |                                       |  |                           |
| PE19.1  | Explain the components of the Universal Immunization Program and the National Immunization Program   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Community Medicine, Microbiology, Biochemistry |                           |
| PE19.2  | Explain the epidemiology of Vaccine preventable diseases   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Community Medicine, Microbiology, Biochemistry |                           |
| PE19.3  | Vaccine description with regard to classification of vaccines, strain used, dose, route, schedule, risks, benefits and side effects, indications and contraindications   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Community Medicine, Microbiology, Biochemistry |                           |
| PE19.4  | Define cold chain and discuss the methods of safe storage and handling of vaccines   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Community Medicine, Microbiology, Biochemistry |                           |
| PE19.5  | Discuss immunization in special situations – HIV positive children, immunodeficiency, pre-term, organ transplants, those who received blood and blood products, splenectomised children, adolescents, travellers | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Community Medicine, Microbiology, Biochemistry |                           |
| PE19.6  | Assess patient for fitness for immunization and prescribe an age appropriate immunization schedule   | S                 | P                      | Y           | Out Patient clinics Skills lab         | Skill Assessment                | 5                                     |  |                           |



| Number  | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE19.7  | Educate and counsel a patient for immunization  | A/C               | SH                     | Y           | DOAP session                           | Document in Log Book            |                                       |                      |                           |
| PE19.8  | Demonstrate willingness to participate in the National and sub national immunisation days   | A                 | SH                     | Y           | Lecture, Small group discussion        | Document in Log Book            |                                       | Community Medicine   |                           |
| PE19.9  | Describe the components of safe vaccine practice – Patient education/ counselling; adverse events following immunization, safe injection practices, documentation and Medico-legal implications | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      | AETCOM                    |
| PE19.10 | Observe the handling and storing of vaccines  | S                 | SH                     | Y           | DOAP session                           | Written/ Viva voce              |                                       |                      |                           |
| PE19.11 | Document Immunization in an immunization record   | S                 | SH                     | Y           | Out Patient clinics, Skills lab        | Skill assessment                |                                       |                      |                           |
| PE19.12 | Observe the administration of UIP vaccines  | S                 | SH                     | Y           | DOAP session                           | Document in Log Book            |                                       | Community Medicine   |                           |
| PE19.13 | Demonstrate the correct administration of different vaccines in a mannequin   | S                 | SH                     | Y           | DOAP session                           | Document in Log Book            |                                       |                      |                           |
| PE19.14 | Practice Infection control measures and appropriate handling of the sharps  | S                 | SH                     | Y           | DOAP session                           | Document in Log Book            |                                       |                      |                           |
| PE19.15 | Explain the term implied consent in Immunization services   | K                 | K                      | Y           | Small group discussion                 | Written/ Viva voce              |                                       |                      |                           |
| PE19.16 | Enumerate available newer vaccines and their indications including pentavalent pneumococcal, rotavirus, JE, typhoid IPV & HPV   | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |

Topic: Care of the Normal New born, and High risk New born

Number of competencies: (20)

Number of procedures that require certification: (NIL)

| Number  | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE20.1  | Define the common neonatal nomenclatures including the classification and describe the characteristics of a Normal Term Neonate and High Risk Neonates       | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.2  | Explain the care of a normal neonate   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.3  | Perform Neonatal resuscitation in a manikin  | S                 | SH                     | Y           | DOAP session                           | Log book entry of Performance   |                                       |                      |                           |
| PE20.4  | Assessment of a normal neonate   | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill Assessment                |                                       |                      |                           |
| PE20.5  | Counsel / educate mothers on the care of neonates  | A/C               | SH                     | Y           | DOAP session                           | Log book documentation          |                                       |                      |                           |
| PE20.6  | Explain the follow up care for neonates including Breast Feeding, Temperature maintenance, immunization, importance of growth monitoring and red flags       | S                 | SH                     | Y           | DOAP session                           | Log book entry                  |                                       |                      | Obstetrics & Gynaecology  |
| PE20.7  | Discuss the etiology, clinical features and management of Birth asphyxia   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.8  | Discuss the etiology, clinical features and management of respiratory distress in New born including meconium aspiration and transient tachypnoea of newborn | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.9  | Discuss the etiology, clinical features and management of Birth injuries   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.10 | Discuss the etiology, clinical features and management of Hemorrhagic disease of New born  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |

| Number  | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE20.11 | Discuss the clinical characteristics, complications and management of Low birth weight (preterm and Small for gestation)   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.12 | Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypothermia   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.13 | Discuss the temperature regulation in neonates, clinical features and management of Neonatal Hypoglycemia  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.14 | Discuss the etiology, clinical features and management of Neonatal hypocalcemia  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.15 | Discuss the etiology, clinical features and management of Neonatal seizures  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.16 | Discuss the etiology, clinical features and management of Neonatal Sepsis  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.17 | Discuss the etiology, clinical features and management of Perinatal infections   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.18 | Identify and stratify risk in a sick neonate using IMNCI guidelines  | S                 | SH                     | Y           | DOAP session                           | Document in Log Book            |                                       |                      |                           |
| PE20.19 | Discuss the etiology, clinical features and management of Neonatal hyperbilirubinemia  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE20.20 | Identify clinical presentations of common surgical conditions in the new born including TEF, esophageal atresia, anal atresia, cleft lip and palate, congenital diaphragmatic hernia and causes of acute abdomen | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |

Topic: Genito-Urinary system

Number of competencies: (17)

Number of procedures that require certification: (NIL)

| Number  | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration    | Horizontal<br>Integration |
|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|-------------------------|---------------------------|
| PE21.1  | Enumerate the etio-pathogenesis, clinical features, complications and management of Urinary Tract infection in children                       | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Microbiology            |                           |
| PE21.2  | Enumerate the etio-pathogenesis, clinical features, complications and management of acute post-streptococcal Glomerular Nephritis in children | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pathology               |                           |
| PE21.3  | Discuss the approach and referral criteria to a child with Proteinuria  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pathology               |                           |
| PE21.4  | Discuss the approach and referral criteria to a child with Hematuria  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Human Anatomy           |                           |
| PE21.5  | Enumerate the etio-pathogenesis, clinical features, complications and management of Acute Renal Failure in children                           | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pathology               |                           |
| PE21.6  | Enumerate the etio-pathogenesis, clinical features, complications and management of Chronic Renal Failure in Children                         | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pathology               |                           |
| PE21.7  | Enumerate the etio-pathogenesis, clinical features, complications and management of Wilms Tumor   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pathology               |                           |
| PE21.8  | Elicit, document and present a history pertaining to diseases of the Genitourinary tract  | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill Assessment                |                                       |                         | General Surgery           |
| PE21.9  | Identify external markers for Kidney disease, like Failing to thrive, hypertension, pallor, Icthyosis, anasarca                               | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Document in log book            |                                       |                         |                           |
| PE21.10 | Analyse symptom and interpret the physical findings and arrive at an appropriate provisional / differential diagnosis                         | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Log book                        |                                       |                         |                           |
| PE21.11 | Perform and interpret the common analytes in a Urine examination  | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill assessment                |                                       | Biochemistry, Pathology |                           |
| PE21.12 | Interpret report of Plain X Ray of KUB  | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Log book                        |                                       | Radiodiagnosis          |                           |

| Number   | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P                        | Vertical Integration     | Horizontal<br>Integration |
|--|--|-------------------|------------------------|-------------|--|---------------------------------|--|--------------------------|---------------------------|
| PE21.13  | Enumerate the indications for and Interpret the written report of Ultra sonogram of KUB  | S                 | SH                     | Y           | Bedside clinics,<br>Skills lab         | Log book                        |  | Radiodiagnosis           |                           |
| PE21.14  | Recognize common surgical conditions of the abdomen and genitourinary system and enumerate the indications for referral including acute and subacute intestinal obstruction, appendicitis, pancreatitis, perforation intussusception, Phimosis, undescended testis, Chordee, hypospadiasis, Torsion testis, hernia Hydrocele, Vulval Synechiae | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Log book assessment             |  |                          | General Surgery           |
| PE21.15  | Discuss and enumerate the referral criteria for children with genitourinary disorder   | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Log book assessment             |  |                          |                           |
| PE21.16  | Counsel / educate a patient for referral appropriately   | A/C               | SH                     | Y           | DOAP session                           | Document in Log book            |  | AETCOM                   |                           |
| PE21.17  | Describe the etiopathogenesis, grading, clinical features and management of hypertension in children   | K                 | KH                     | Y           | Lecture, Small group discussion        | Short notes                     |  |                          |                           |
| <b>Topic: Approach to and recognition of a child with possible Rheumatologic problem</b> |  |                   |                        |             |  |                                 |  |                          |                           |
|  |  |                   |                        |             | <b>Number of competencies: (03)</b>    |                                 | <b>Number of procedures that require certification:(NIL)</b> |                          |                           |
| PE22.1   | Enumerate the common Rheumatological problems in children. Discuss the clinical approach to recognition and referral of a child with Rheumatological problem   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |  |                          |                           |
| PE22.2   | Counsel a patient with Chronic illness   | S                 | SH                     | N           | Bedside clinics<br>Skills lab          | Log book                        |  |                          |                           |
| PE22.3   | Describe the diagnosis and management of common vasculitic disorders including Henoch Schonlein Purpura, Kawasaki Disease, SLE, JIA  | K                 | K                      | N           | Lecture, Small group discussion        | Written/ Viva voce              |  |                          |                           |
| <b>Topic: Cardiovascular system- Heart Diseases</b>                                      |  |                   |                        |             |  |                                 |  |                          |                           |
|  |  |                   |                        |             | <b>Number of competencies: (18)</b>    |                                 | <b>Number of procedures that require certification:(NIL)</b> |                          |                           |
| PE23.1   | Discuss the Hemodynamic changes, clinical presentation, complications and management of Acyanotic Heart Diseases –VSD, ASD and PDA   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |  | Physiology,<br>Pathology |                           |

| Number  | <b>COMPETENCY</b><br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration                | Horizontal<br>Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|-------------------------------------|---------------------------|
| PE23.2  | Discuss the Hemodynamic changes, clinical presentation, complications and management of Cyanotic Heart Diseases – Fallot’s Physiology  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Physiology, Pathology               |                           |
| PE23.3  | Discuss the etio-pathogenesis, clinical presentation and management of cardiac failure in infant and children  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Physiology, Pathology               |                           |
| PE23.4  | Discuss the etio-pathogenesis, clinical presentation and management of Acute Rheumatic Fever in children   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Physiology, Pathology               |                           |
| PE23.5  | Discuss the clinical features, complications, diagnosis, management and prevention of Acute Rheumatic Fever  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Physiology, Pathology               |                           |
| PE23.6  | Discuss the etio-pathogenesis, clinical features and management of Infective endocarditis in children  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Physiology, Pathology, Microbiology |                           |
| PE23.7  | Elicit appropriate history for a cardiac disease, analyse the symptoms e.g. breathlessness, chest pain, tachycardia, feeding difficulty, failing to thrive, reduced urinary output, swelling, syncope, cyanotic spells, Suck rest cycle, frontal swelling in infants. Document and present | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill Assessment                |                                       |                                     |                           |
| PE23.8  | Identify external markers of a cardiac disease e.g. Cyanosis, Clubbing, dependent edema, dental caries, arthritis, erythema rash, chorea, subcutaneous nodules, Osler’s node, Janeway lesions and document   | S                 | SH                     | Y           | Bedside clinics, Skills Lab            | Skill Assessment                |                                       |                                     |                           |
| PE23.9  | Record pulse, blood pressure, temperature and respiratory rate and interpret as per the age  | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill Assessment                |                                       |                                     |                           |
| PE23.10 | Perform independently examination of the cardiovascular system – look for precordial bulge, pulsations in the precordium, JVP and its significance in children and infants, relevance of percussion in Pediatric examination, Auscultation and other system examination and document       | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill station                   |                                       |                                     |                           |

| Number   | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C                   | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods                      | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration    | Horizontal<br>Integration |
|--|--|-------------------------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|-------------------------|---------------------------|
| PE23.11  | Develop a treatment plan and prescribe appropriate drugs including fluids in cardiac diseases, anti -failure drugs, and inotropic agents | S                                   | SH                     | Y           | Bedside clinics, Skills lab                                 | log book                        |                                       |                         |                           |
| PE23.12  | Interpret a chest X ray and recognize Cardiomegaly   | S                                   | SH                     | Y           | Bedside clinics, Skills lab                                 | Log book entry                  |                                       | Radiodiagnosis          |                           |
| PE23.13  | Choose and Interpret blood reports in Cardiac illness  | S                                   | P                      | Y           | Bedside clinics, Small group discussion                     | Log book entry                  |                                       |                         |                           |
| PE23.14  | Interpret Pediatric ECG  | S                                   | SH                     | Y           | Bedside clinics, Skills lab                                 | Log book entry                  |                                       |                         |                           |
| PE23.15  | Use the ECHO reports in management of cases  | S                                   | SH                     | Y           | Bedside clinics   | Log book entry                  |                                       | Radiodiagnosis          |                           |
| PE23.16  | Discuss the indications and limitations of Cardiac catheterization   | K                                   | K                      | N           | Small group discussion                                      | Viva voce                       |                                       |                         |                           |
| PE23.17  | Enumerate some common cardiac surgeries like BT shunt, Potts and Waterston's and corrective surgeries                                    | K                                   | K                      | N           | Small group discussion                                      | Viva voce                       |                                       |                         |                           |
| PE23.18  | Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter   | A                                   | SH                     | Y           | Small group discussion                                      | Document in Log Book            |                                       | AETCOM                  |                           |
| <b>Topic:Diarrhoeal diseases and Dehydration</b> |  | <b>Number of competencies: (17)</b> |                        |             | <b>Number of procedures that require certification:(03)</b> |                                 |                                       |                         |                           |
| PE24.1   | Discuss the etio-pathogenesis, classification, clinical presentation and management of diarrheal diseases in children                    | K                                   | KH                     | Y           | Lecture, Small group discussion                             | Written/ Viva voce              |                                       | Pathology, Microbiology |                           |
| PE24.2   | Discuss the classification and clinical presentation of various types of diarrheal dehydration   | K                                   | KH                     | Y           | Lecture, Small group discussion                             | Written/ Viva voce              |                                       | Pathology, Microbiology |                           |

| Number  | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods  | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration          | Horizontal<br>Integration |
|---------|---|-------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|-------------------------------|---------------------------|
| PE24.3  | Discuss the physiological basis of ORT, types of ORS and the composition of various types of ORS                            | K                 | KH                     | Y           | Lecture, Small group discussion         | Written/ Viva voce              |                                       |                               |                           |
| PE24.4  | Discuss the types of fluid used in Paediatric diarrheal diseases and their composition                                      | K                 | KH                     | Y           | Lecture, Small group discussion         | Written/ Viva voce              |                                       |                               |                           |
| PE24.5  | Discuss the role of antibiotics, antispasmodics, anti-secretory drugs, probiotics, anti-emetics in acute diarrheal diseases | K                 | KH                     | Y           | Lecture, Small group discussion         | Written/ Viva voce              |                                       | Pharmacology,<br>Microbiology |                           |
| PE24.6  | Discuss the causes, clinical presentation and management of persistent diarrhoea in children                                | K                 | KH                     | Y           | Lecture, Small group discussion         | Written/ Viva voce              |                                       | Microbiology                  |                           |
| PE24.7  | Discuss the causes, clinical presentation and management of chronic diarrhoea in children                                   | K                 | KH                     | Y           | Lecture, Small group discussion         | Written/ Viva voce              |                                       |                               |                           |
| PE24.8  | Discuss the causes, clinical presentation and management of dysentery in children   | K                 | KH                     | Y           | Lecture, Small group discussion         | Written/ Viva voce              |                                       | Pharmacology,<br>Microbiology |                           |
| PE24.9  | Elicit, document and present history pertaining to diarrheal diseases   | S                 | SH                     | Y           | Bedside clinics, Skills lab             | Skill assessment                |                                       |                               |                           |
| PE24.10 | Assess for signs of dehydration, document and present   | S                 | SH                     | Y           | Bedside clinics, Skills lab             | Skill assessment                |                                       |                               |                           |
| PE24.11 | Apply the IMNCI guidelines in risk stratification of children with diarrheal dehydration and refer                          | S                 | SH                     | Y           | Bedside clinics, Skills lab             | Document in Log book            |                                       |                               |                           |
| PE24.12 | Perform and interpret stool examination including Hanging Drop  | S                 | SH                     | N           | Bedside clinics, Skills lab             | Log book                        |                                       | Microbiology                  |                           |
| PE24.13 | Interpret RFT and electrolyte report  | S                 | SH                     | Y           | Bedside clinics, Small group discussion | Document in Log Book            |                                       |                               |                           |
| PE24.14 | Plan fluid management as per the WHO criteria   | S                 | SH                     | Y           | Bedside clinics, Small group activity   | Skills Station                  |                                       |                               |                           |



| Number  | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C                   | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods                        | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration    | Horizontal<br>Integration |
|---|---|-------------------------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|-------------------------|---------------------------|
| PE24.15   | Perform NG tube insertion in a manikin  | S                                   | P                      | Y           | DOAP session  | Document in Log book            | 2                                     |                         |                           |
| PE24.16   | Perform IV cannulation in a model   | S                                   | P                      | Y           | DOAP session  | Document in Log book            | 2                                     |                         |                           |
| PE24.17   | Perform Interosseous insertion model  | S                                   | P                      | Y           | DOAP session  | Document in Log book            | 2                                     |                         |                           |
| <b>Topic: Malabsorption</b>                     |   | <b>Number of competencies: (01)</b> |                        |             | <b>Number of procedures that require certification:(NIL)</b>  |                                 |                                       |                         |                           |
| PE25.1  | Discuss the etio-pathogenesis, clinical presentation and management of Malabsorption in Children and its causes including celiac disease  | K                                   | KH                     | N           | Lecture, Small group discussion                               | Written/ Viva voce              |                                       | Pathology               |                           |
| <b>Topic: Acute and chronic liver disorders</b> |   | <b>Number of competencies: (13)</b> |                        |             | <b>Number of procedures that require certification: (NIL)</b> |                                 |                                       |                         |                           |
| PE26.1  | Discuss the etio-pathogenesis, clinical features and management of acute hepatitis in children  | K                                   | KH                     | Y           | Lecture, Small group activity                                 | Written/ Viva voce              |                                       | Pathology, Microbiology |                           |
| PE26.2  | Discuss the etio-pathogenesis, clinical features and management of Fulminant Hepatic Failure in children  | K                                   | KH                     | Y           | Lecture, Small group activity                                 | Written/ Viva voce              |                                       | Pathology, Microbiology |                           |
| PE26.3  | Discuss the etio-pathogenesis, clinical features and management of chronic liver diseases in children   | K                                   | KH                     | Y           | Lecture, Small group activity                                 | Written/ Viva voce              |                                       | Pathology, Microbiology |                           |
| PE26.4  | Discuss the etio-pathogenesis, clinical features and management of Portal Hypertension in children  | K                                   | KH                     | Y           | Lecture, Small group activity                                 | Written/ Viva voce              |                                       | Pathology               |                           |
| PE26.5  | Elicit document and present the history related to diseases of Gastrointestinal system  | S                                   | SH                     | Y           | Bedside clinics, Skills lab                                   | Skills Station                  |                                       |                         |                           |
| PE26.6  | Identify external markers for GI and Liver disorders e.g.. Jaundice, Pallor, Gynaecomastia, Spider angioma, Palmar erythema, Icthyosis, Caput medusa, Clubbing, Failing to thrive, Vitamin A and D deficiency | S                                   | SH                     | Y           | Bedside clinics, Skills lab                                   | Skill Assessment                |                                       |                         |                           |

| Number   | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|--|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE26.7   | Perform examination of the abdomen, demonstrate organomegaly, ascites etc.                               | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill Assessment                |                                       |                      |                           |
| PE26.8   | Analyse symptoms and interpret physical signs to make a provisional/ differential diagnosis              | S                 | SH                     | Y           | Bedside clinics, Skill lab             | Skill Assessment                |                                       |                      |                           |
| PE26.9   | Interpret Liver Function Tests, viral markers, ultra sonogram report                                     | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill Assessment                |                                       | Pathology            |                           |
| PE26.10  | Demonstrate the technique of liver biopsy in a Perform Liver Biopsy in a simulated environment           | S                 | SH                     | Y           | DOAP session                           | Document in log book            |                                       |                      |                           |
| PE26.11  | Enumerate the indications for Upper GI endoscopy   | K                 | K                      | N           | Small group discussion                 | Viva voce                       |                                       |                      |                           |
| PE26.12  | Discuss the prevention of Hep B infection – Universal precautions and Immunisation                       | K                 | KH                     | Y           | Lecture, Small group activity          | Written/ Viva voce              |                                       | Microbiology         |                           |
| PE26.13  | Counsel and educate patients and their family appropriately on liver diseases                            | A/C               | P                      | y           | Bedside clinics, Skills lab            | Document in log book            |                                       |                      |                           |
| <b>Topic: Pediatric Emergencies – Common Pediatric Emergencies</b> <b>Number of competencies: (35)</b> <b>Number of procedures that require certification:(10)</b> |  |                   |                        |             |  |                                 |                                       |                      |                           |
| PE27.1   | List the common causes of morbidity and mortality in the under five children                             | K                 | K                      | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE27.2   | Describe the etio-pathogenesis, clinical approach and management of cardiorespiratory arrest in children | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE27.3   | Describe the etio-pathogenesis of respiratory distress in children                                       | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |

| Number  | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE27.4  | Describe the clinical approach and management of respiratory distress in children   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE27.5  | Describe the etio-pathogenesis, clinical approach and management of Shock in children   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE27.6  | Describe the etio-pathogenesis, clinical approach and management of Status epilepticus  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE27.7  | Describe the etio-pathogenesis, clinical approach and management of an unconscious child  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE27.8  | Discuss the common types, clinical presentations and management of poisoning in children  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE27.9  | Discuss oxygen therapy, in Pediatric emergencies and modes of administration  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE27.10 | Observe the various methods of administering Oxygen   | S                 | KH                     | Y           | Demonstration                          | Document in log book            |                                       |                      |                           |
| PE27.11 | Explain the need and process of triage of sick children brought to health facility  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE27.12 | Enumerate emergency signs and priority signs  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE27.13 | List the sequential approach of assessment of emergency and priority signs  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE27.14 | Assess emergency signs and prioritize   | S                 | SH                     | Y           | DOAP session, Skills lab               | Skills Assessment               |                                       |                      |                           |
| PE27.15 | Assess airway and breathing: recognise signs of severe respiratory distress. Check for cyanosis, severe chest indrawing, grunting | S                 | P                      | Y           | DOAP session, Skills lab               | Skills Assessment               | 3                                     |                      |                           |

| Number  | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE27.16 | Assess airway and breathing. Demonstrate the method of positioning of an infant & child to open airway in a simulated environment   | S                 | P                      | Y           | DOAP session, Skills Lab               | Skills Assessment               | 3                                     |                      |                           |
| PE27.17 | Assess airway and breathing: administer oxygen using correct technique and appropriate flow rate  | S                 | P                      | Y           | DOAP session, Skills Lab               | Skills Assessment               | 3                                     |                      |                           |
| PE27.18 | Assess airway and breathing: perform assisted ventilation by Bag and mask in a simulated environment  | S                 | P                      | Y           | DOAP session, Skills lab               | Skills Assessment               | 3                                     |                      |                           |
| PE27.19 | Check for signs of shock i.e. pulse, Blood pressure, CRT  | S                 | P                      | Y           | DOAP session, Skills Lab               | Skills Assessment               | 3                                     |                      |                           |
| PE27.20 | Secure an IV access in a simulated environment  | S                 | P                      | Y           | DOAP session, Skills Lab               | Skills Assessment               | 3                                     |                      |                           |
| PF27.21 | Choose the type of fluid and calculate the fluid requirement in shock   | S                 | P                      | Y           | DOAP session, Small group activity     | Skills Assessment               | 3                                     |                      |                           |
| PE27.22 | Assess level of consciousness & provide emergency treatment to a child with convulsions/ coma<br>- Position an unconscious child<br>- Position a child with suspected trauma<br>- Administer IV/per rectal Diazepam for a convulsing child in a simulated environment | S                 | P                      | Y           | DOAP session, Skills Lab               | Skills Assessment               | 3                                     |                      |                           |
| PE27.23 | Assess for signs of severe dehydration  | S                 | P                      | Y           | Bedside clinics, Skills lab            | Skill station                   | 3                                     |                      |                           |
| PE27.24 | Monitoring and maintaining temperature: define hypothermia. Describe the clinical features, complications and management of Hypothermia   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE27.25 | Describe the advantages and correct method of keeping an infant warm by skin to skin contact  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |

| Number                           | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C                   | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods                        | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|----------------------------------|--|-------------------------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE27.26                          | Describe the environmental measures to maintain temperature                          | K                                   | KH                     | Y           | Lecture, Small group discussion                               | Written/ Viva voce              |                                       |                      |                           |
| PE27.27                          | Assess for hypothermia and maintain temperature                                      | S                                   | SH                     | Y           | Skills lab  | Skills Assessment               |                                       |                      |                           |
| PE27.28                          | Provide BLS for children in manikin  | S                                   | P                      | Y           | Skills Lab  |                                 | 3                                     |                      |                           |
| PE.27.29                         | Discuss the common causes, clinical presentation, medico-legal implications of abuse | K                                   | KH                     | Y           | Lecture, Small group discussion                               | Written/ Viva voce              |                                       |                      |                           |
| PE27.30                          | Demonstrate confidentiality with regard to abuse                                     | A                                   | SH                     | Y           | Skills lab, standardized patients                             | Skills Station                  |                                       |                      |                           |
| PE27.31                          | Assess child for signs of abuse  | S                                   | SH                     | Y           | DOAP session, Skills lab                                      | Log book                        |                                       |                      |                           |
| PE27.32                          | Counsel parents of dangerously ill / terminally ill child to break a bad news        | S                                   | SH                     | Y           | DOAP session  | Document in Log book            |                                       |                      |                           |
| PE27.33                          | Obtain Informed Consent  | S                                   | SH                     | Y           | DOAP session  | Document in Log book            |                                       |                      |                           |
| PE27.34                          | Willing to be a part of the ER team  | A                                   | SH                     | Y           | DOAP session  | Document in Log book            |                                       |                      |                           |
| PE27.35                          | Attends to emergency calls promptly  | A                                   | SH                     | Y           | DOAP session  | Document in Log Book            |                                       |                      |                           |
| <b>Topic: Respiratory system</b> |  | <b>Number of competencies: (20)</b> |                        |             | <b>Number of procedures that require certification: (NIL)</b> |                                 |                                       |                      |                           |
| PE28.1                           | Discuss the etio-pathogenesis, clinical features and management of Naso pharyngitis  | K                                   | KH                     | Y           | Lecture, Small group discussion                               | Written/ Viva voce              |                                       | ENT                  |                           |
| PE28.2                           | Discuss the etio-pathogenesis of Pharyngo Tonsillitis                                | K                                   | KH                     | Y           | Lecture, Small group discussion                               | Written/ Viva voce              |                                       | ENT                  |                           |

| Number  | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE28.3  | Discuss the clinical features and management of Pharyngo Tonsillitis   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | ENT                  |                           |
| PE28.4  | Discuss the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM)  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | ENT                  |                           |
| PE28.5  | Discuss the etio-pathogenesis, clinical features and management of Epiglottitis  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | ENT                  |                           |
| PE28.6  | Discuss the etio-pathogenesis, clinical features and management of Acute laryngo- trachea-bronchitis                                       | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | ENT                  |                           |
| PE28.7  | Discuss the etiology, clinical features and management of Stridor in children  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | ENT                  |                           |
| PE28.8  | Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children                                | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | ENT                  |                           |
| PE28.9  | Elicit, document and present age appropriate history of a child with upper respiratory problem including Stridor                           | S                 | SH                     | Y           | Bedside clinics, skill lab             | Skill Assessment                |                                       | ENT                  |                           |
| PE28.10 | Perform otoscopic examination of the ear   | S                 | SH                     | Y           | DOAP session                           | Skills Assessment               |                                       | ENT                  |                           |
| PE28.11 | Perform throat examination using tongue depressor  | S                 | SH                     | Y           | DOAP session                           | Skills Assessment               |                                       | ENT                  |                           |
| PE28.12 | Perform examination of the nose  | S                 | SH                     | Y           | DOAP session                           | Skills Assessment               |                                       | ENT                  |                           |
| PE28.13 | Analyse the clinical symptoms and interpret physical findings and make a provisional / differential diagnosis in a child with ENT symptoms | S                 | SH                     | Y           | Bedside clinics                        | Skills Assessment               |                                       |                      |                           |
| PE28.14 | Develop a treatment plan and document appropriately in a child with upper respiratory symptoms   | S                 | SH                     | Y           | Bedside clinics                        | Skills Assessment               |                                       |                      |                           |

| Number   | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods           | Suggested Assessment<br>methods          | Number<br>required<br>to certify<br>P | Vertical Integration  | Horizontal<br>Integration |
|--|--|-------------------|------------------------|-------------|--|--|---------------------------------------|-----------------------|---------------------------|
| PE28.15  | Stratify risk in children with stridor using IMNCI guidelines  | S                 | SH                     | Y           | Bedside clinics                                  | Log book documentation                   |                                       |                       |                           |
| PE28.16  | Interpret blood tests relevant to upper respiratory problems   | S                 | SH                     | N           | Bedside clinics, Small group discussion          | Log book                                 |                                       |                       |                           |
| PE28.17  | Interpret X-ray of the paranasal sinuses and mastoid; and /or use written report in case of management<br>Interpret CXR in foreign body aspiration and lower respiratory tract infection, understand the significance of thymic shadow in pediatric chest X-rays | S                 | SH                     | Y           | Bedside clinics, Small group discussion          | Skills Assessment                        |                                       | ENT, Radiodiagnosis   |                           |
| PE28.18  | Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of lower respiratory infections including bronchiolitis, wheeze associated LRTI Pneumonia and empyema  | S                 | SH                     | Y           | Bedside clinics, Small group discussion, Lecture | Skill Assessment/<br>Written/ Viva voce  |                                       |                       |                           |
| PE28.19  | Describe the etio-pathogenesis, diagnosis, clinical features, management and prevention of asthma in children  | S                 | SH                     | Y           | Bedside clinics, Small group discussion, Lecture | Skill Assessment/<br>Written/ Viva voce  |                                       | Respiratory Medicine  |                           |
| PE28.20  | Counsel the child with asthma on the correct use of inhalers in a simulated environment  | S                 | SH                     | Y           | Bedside clinics, Small group discussion, Lecture | Skills Assessment/<br>Written/ Viva voce |                                       | Respiratory Medicine  |                           |
| <b>Topic: Anemia and other Hemato-oncologic disorders in children</b> <b>Number of competencies: (20 )</b> <b>Number of procedures that require certification: (NIL)</b> |  |                   |                        |             |  |  |                                       |                       |                           |
| PE29.1   | Discuss the etio-pathogenesis, clinical features, classification and approach to a child with anaemia  | K                 | KH                     | Y           | Lecture, Small group discussion                  | Written/ Viva voce                       |                                       | Pathology, Physiology |                           |
| PE29.2   | Discuss the etio-pathogenesis, clinical features and management of Iron Deficiency anaemia   | K                 | KH                     | Y           | Lecture, Small group discussion                  | Written/ Viva voce                       |                                       | Pathology, Physiology |                           |

| Number  | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration  | Horizontal<br>Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|-----------------------|---------------------------|
| PE29.3  | Discuss the etiopathogenesis, clinical features and management of VIT B12, Folate deficiency anaemia   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pathology, Physiology |                           |
| PE29.4  | Discuss the etio-pathogenesis, clinical features and management of Hemolytic anemia, Thalassemia Major, Sickle cell anaemia, Hereditary spherocytosis, Auto-immune hemolytic anaemia and hemolytic uremic syndrome | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pathology, Physiology |                           |
| PE29.5  | Discuss the National Anaemia Control Program   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Community Medicine    |                           |
| PE29.6  | Discuss the cause of thrombocytopenia in children: describe the clinical features and management of Idiopathic Thrombocytopenic Purpura (ITP)  | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pathology             |                           |
| PE29.7  | Discuss the etiology, classification, pathogenesis and clinical features of Hemophilia in children   | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pathology             |                           |
| PE29.8  | Discuss the etiology, clinical presentation and management of Acute Lymphoblastic Leukemia in children   | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pathology             |                           |
| PE29.9  | Discuss the etiology, clinical presentation and management of lymphoma in children   | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pathology             |                           |
| PE29.10 | Elicit, document and present the history related to Hematology   | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skills Station                  |                                       |                       |                           |
| PE29.11 | Identify external markers for hematological disorders e.g.. Jaundice, Pallor, Petechiae purpura, Ecchymosis, Lymphadenopathy, bone tenderness, loss of weight, Mucosal and large joint bleed                       | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill assessment                |                                       |                       |                           |
| PE29.12 | Perform examination of the abdomen, demonstrate organomegaly   | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill assessment                |                                       |                       |                           |



| Number   | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C                  | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods                       | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|--|--|------------------------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE29.13  | Analyse symptoms and interpret physical signs to make a provisional/ differential diagnosis                                | S                                  | SH                     | Y           | Bedside clinics, Skill lab                                   | Skill assessment                |                                       |                      |                           |
| PE29.14  | Interpret CBC, LFT   | S                                  | SH                     | Y           | Bedside clinics, Skills lab                                  | Skill assessment                |                                       |                      |                           |
| PE29.15  | Perform and interpret peripheral smear   | S                                  | SH                     | Y           | DOAP session   | Document in log book            |                                       |                      |                           |
| PE29.16  | Discuss the indications for Hemoglobin electrophoresis and interpret report  | K                                  | K                      | N           | Small group discussion                                       | Viva voce                       |                                       | Biochemistry         |                           |
| PE29.17  | Demonstrate performance of bone marrow aspiration in manikin   | S                                  | SH                     | Y           | Skills lab   | Document in log Book            |                                       |                      |                           |
| PE29.18  | Enumerate the referral criteria for Hematological conditions   | S                                  | SH                     | Y           | Bedside clinics, Small group activity                        | Viva voce                       |                                       |                      |                           |
| PE29.19  | Counsel and educate patients about prevention and treatment of anemia  | A/C                                | SH                     | Y           | Bedside clinics, Skills lab                                  | Document in log book            |                                       |                      |                           |
| PE29.20  | Enumerate the indications for splenectomy and precautions  | K                                  | K                      | N           | Small group Activity   | Viva voce                       |                                       |                      |                           |
| <b>Topic: Systemic Pediatrics-Central Nervous system</b> |  | <b>Number of competencis: (23)</b> |                        |             | <b>Number of procedures that require certification:(NIL)</b> |                                 |                                       |                      |                           |
| PE30.1   | Discuss the etio-pathogenesis, clinical features , complications, management and prevention of meningitis in children      | K                                  | KH                     | Y           | Lecture, Small group discussion                              | Written/ Viva voce              |                                       | Microbiology         |                           |
| PE30.2   | Distinguish bacterial, viral and tuberculous meningitis  | K                                  | KH                     | Y           | Lecture, Small group discussion                              | Written/ Viva voce              |                                       | Microbiology         |                           |
| PE30.3   | Discuss the etio-pathogenesis, classification, clinical features, complication and management of Hydrocephalus in children | K                                  | KH                     | Y           | Lecture, Small group discussion                              | Written/ Viva voce              |                                       |                      |                           |

| Number  | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE30.4  | Discuss the etio-pathogenesis, classification, clinical features, and management of Microcephaly in children             | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE30.5  | Enumerate the Neural tube defects. Discuss the causes, clinical features, types, and management of Neural Tube defect    | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE30.6  | Discuss the etio-pathogenesis, clinical features, and management of Infantile hemiplegia                                 | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE30.7  | Discuss the etio-pathogenesis, clinical features, complications and management of Febrile seizures in children           | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE30.8  | Define epilepsy. Discuss the pathogenesis, clinical types, presentation and management of Epilepsy in children           | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE30.9  | Define status Epilepticus. Discuss the clinical presentation and management  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE30.10 | Discuss the etio-pathogenesis, clinical features and management of Mental retardation in children                        | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE30.11 | Discuss the etio-pathogenesis, clinical features and management of children with cerebral palsy                          | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE30.12 | Enumerate the causes of floppiness in an infant and discuss the clinical features, differential diagnosis and management | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE30.13 | Discuss the etio-pathogenesis, clinical features, management and prevention of Poliomyelitis in children                 | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Microbiology         |                           |
| PE30.14 | Discuss the etio-pathogenesis, clinical features and management of Duchene muscular dystrophy                            | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE30.15 | Discuss the etio-pathogenesis, clinical features and management of Ataxia in children                                    | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |

| Number  | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE30.16 | Discuss the approach to and management of a child with headache   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                      |                           |
| PE30.17 | Elicit document and present an age appropriate history pertaining to the CNS  | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill Assessment                |                                       |                      |                           |
| PE30.18 | Demonstrate the correct method for physical examination of CNS including identification of external markers. Document and present clinical findings | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill Assessment                |                                       |                      |                           |
| PE30.19 | Analyse symptoms and interpret physical findings and propose a provisional / differential diagnosis   | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill Assessment                |                                       |                      |                           |
| PE30.20 | Interpret and explain the findings in a CSF analysis  | S                 | SH                     | Y           | Small group discussion                 | Log book                        |                                       | Microbiology         |                           |
| PE30.21 | Enumerate the indication and discuss the limitations of EEG, CT, MRI  | K                 | K                      | N           | Bedside clinics                        | Log book                        |                                       |                      |                           |
| PE30.22 | Interpret the reports of EEG, CT, MRI   | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Log book                        |                                       | Radiodiagnosis       |                           |
| PE30.23 | Perform in a mannequin lumbar puncture. Discuss the indications, contraindication of the procedure  | S                 | SH                     | Y           | Bedside clinics, Skills lab            | Skill Assessment                |                                       |                      |                           |

**Topic: Allergic Rhinitis , Atopic Dermatitis, Bronchial Asthma , Urticaria Angioedema**

**Number of competencies: (12)**

**Number of procedures that require certification: (NIL)**

|        |   |   |    |   |                                   |                    |  |     |  |
|--------|---|---|----|---|-----------------------------------|--------------------|--|-----|--|
| PE31.1 | Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children        | K | KH | Y | Lecture, Small group discussion   | Written/ Viva voce |  | ENT |  |
| PE31.2 | Recognize the clinical signs of Allergic Rhinitis   | S | SH | Y | Bedside clinics' Skill Lab        | Skill Assessment   |  | ENT |  |
| PE31.3 | Describe the etio-pathogenesis, clinical features and management of Atopic dermatitis in Children | K | KH | Y | Lecture<br>Small group discussion | Written/ Viva voce |  | ENT |  |

| Number                                  | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C                   | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods                        | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration                     | Horizontal<br>Integration |
|---|---|-------------------------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|--|---------------------------|
| PE31.4                                  | Identify Atopic dermatitis and manage   | S                                   | SH                     |             | Bedside clinics<br>Skills lab                                 | Skill Assessment                |                                       | Dermatology,<br>Venereology &<br>Leprosy |                           |
| PE31.5                                  | Discuss the etio-pathogenesis, clinical types, presentations, management and prevention of childhood Asthma                       | K                                   | KH                     | Y           | Lecture<br>Small group<br>discussion                          | Written/ Viva voce              |                                       |  |                           |
| PE31.6                                  | Recognise symptoms and signs of Asthma  | S                                   | SH                     | Y           | Bedside clinic, Small<br>group activity                       | Skill Assessment                |                                       |  |                           |
| PE31.7                                  | Develop a treatment plan for Asthma appropriate to clinical presentation & severity   | S                                   | SH                     | Y           | Bedside clinic, Small<br>group activity                       | Skill Assessment                |                                       |  |                           |
| PE31.8                                  | Enumerate criteria for referral   | K                                   | KH                     | Y           | Bedside clinic, Small<br>group activity                       | Written/ Viva voce              |                                       |  |                           |
| PE31.9                                  | Interpret CBC and CX Ray in Asthma  | S                                   | SH                     | Y           | Bedside clinic, Small<br>group activity                       | Skill Assessment                |                                       |  |                           |
| PE31.10                                 | Enumerate the indications for PFT   | K                                   | K                      | N           | Bedside clinic, Small<br>group activity                       | Viva voce                       |                                       |  |                           |
| PE31.11                                 | Observe administration of Nebulisation  | S                                   | SH                     | Y           | DOAP session  | Document in log book            |                                       |  |                           |
| PE31.12                                 | Discuss the etio-pathogenesis, clinical features and complications and management of Urticaria Angioedema                         | K                                   | KH                     | Y           | Lecture, Small group<br>discussion                            | Written/ Viva voce              |                                       |  |                           |
| <b>Topic: Chromosomal Abnormalities</b> |   | <b>Number of competencies: (13)</b> |                        |             | <b>Number of procedures that require certification: (NIL)</b> |                                 |                                       |  |                           |
| PE32.1                                  | Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Down's Syndrome | K                                   | KH                     | Y           | Lecture, Small group<br>discussion                            | Written/ Viva voce              |                                       | Human Anatomy                            |                           |

| Number  | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration                             | Horizontal<br>Integration                        |
|---------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|--|
| PE32.2  | Identify the clinical features of Down's Syndrome  | S                 | SH                     | Y           | Bedside clinics, Skills<br>lab         | log book                        |                                       | General Medicine                                 |  |
| PE32.3  | Interpret normal Karyotype and recognize Trisomy 21  | S                 | SH                     | Y           | Bedside clinics, Skills<br>lab         | Log book                        |                                       |  | General Medicine                                 |
| PE32.4  | Discuss the referral criteria and Multidisciplinary approach to management   | K                 | KH                     | Y           | Lecture, Small group<br>discussion     | Written/ Viva voce              |                                       |  |  |
| PE32.5  | Counsel parents regarding 1. Present child<br>2. Risk in the next pregnancy  | A/C               | SH                     | N           | Bedside clinics, Skills<br>lab         | Log book                        |                                       |  |  |
| PE32.6  | Discuss the genetic basis, risk factors, clinical features, complications, prenatal diagnosis, management and genetic counselling in Turner's Syndrome | K                 | KH                     | N           | Lecture, Small group<br>discussion     | Written/ Viva voce              |                                       | General Medicine,<br>Obstetrics &<br>Gynaecology |  |
| PE32.7  | Identify the clinical features of Turner Syndrome  | S                 | SH                     | N           | Bedside clinics, Skills<br>lab         | Log book                        |                                       | General Medicine                                 |  |
| PE32.8  | Interpret normal Karyotype and recognize the Turner Karyotype  | S                 | SH                     | N           | Bedside clinics, Skills<br>lab         | log book                        |                                       | General Medicine,<br>Obstetrics &<br>Gynaecology |  |
| PE32.9  | Discuss the referral criteria and multidisciplinary approach to management of Turner Syndrome  | K                 | KH                     | N           | Lecture, Small group<br>discussion     | Written/ Viva voce              |                                       |  | General Medicine,<br>Obstetrics &<br>Gynaecology |
| PE32.10 | Counsel parents regarding 1. Present child<br>2. Risk in the next pregnancy  | A/C               | SH                     | N           | Bedside clinics, Skills<br>lab         | Log book                        |                                       |  |  |
| PE32.11 | Discuss the genetic basis, risk factors, complications, prenatal diagnosis, management and genetic counselling in Klinefelter Syndrome                 | K                 | KH                     | Y           | Lecture, Small group<br>discussion     | Written/ Viva voce              |                                       | General Medicine                                 |  |

| Number  | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods     | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE32.12   | Identify the clinical features of Klinefelter Syndrome   | S                 | SH                     | N           | Bedside clinics, Skills<br>lab             | Log book                        |                                       | General Medicine     |                           |
| PE32.13   | Interpret normal Karyotype and recognize the Klinefelter Karyotype   | S                 | SH                     | N           | Bedside clinics, Skills<br>lab             | Log book                        |                                       | General Medicine     |                           |
| <b>Topic: Endocrinology</b> <span style="margin-left: 200px;"><b>Number of competencies: ( 11)</b></span> <span style="margin-left: 200px;"><b>Number of procedures that require certification: (02)</b></span> |  |                   |                        |             |  |                                 |                                       |                      |                           |
| PE33.1  | Describe the etio-pathogenesis clinical features, management of Hypothyroidism in children                                 | K                 | KH                     | Y           | Lecture, Small group<br>discussion         | Written/ Viva voce              |                                       |                      |                           |
| PE33.2  | Recognize the clinical signs of Hypothyroidism and refer   | S                 | SH                     | Y           | Bedside clinics, Skill<br>Lab              | Skill Assessment                |                                       |                      |                           |
| PE33.3  | Interpret and explain neonatal thyroid screening report  | S                 | SH                     | Y           | Bedside clinics, Small<br>group discussion | Skill Assessment                |                                       |                      |                           |
| PE33.4  | Discuss the etio-pathogenesis, clinical types, presentations, complication and management of Diabetes mellitus in children | K                 | KH                     | Y           | Lecture, Small group<br>discussions        | Written/ Viva voce              |                                       |                      |                           |
| PE33.5  | Interpret Blood sugar reports and explain the diagnostic criteria for Type 1 Diabetes                                      | S                 | SH                     | Y           | Bedside clinic, small<br>group activity    | Skill Assessment                |                                       |                      |                           |
| PE33.6  | Perform and interpret Urine Dip Stick for Sugar  | S                 | P                      | Y           | DOAP session                               | Skill Assessment                | 3                                     | Biochemistry         |                           |
| PE33.7  | Perform genital examination and recognize Ambiguous Genitalia and refer appropriately                                      | S                 | SH                     | Y           | Bedside clinic<br>Skills lab               | Skill Assessment                |                                       |                      |                           |
| PE33.8  | Define precocious and delayed Puberty  | K                 | KH                     | Y           | Lecture, Small group<br>discussion         | Written/ Viva voce              |                                       |                      |                           |

| Number   | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration                           | Horizontal<br>Integration |
|--|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|---------------------------|
| PE33.9   | Perform Sexual Maturity Rating (SMR) and interpret   | S                 | SH                     | Y           | Bedside clinics<br>Skills Lab          | Skill Assessment                |                                       |  |                           |
| PE33.10  | Recognize precocious and delayed Puberty and refer   | S                 | SH                     | Y           | Bedside clinics<br>Skills Lab          | log book                        |                                       |  |                           |
| PE33.11  | Identify deviations in growth and plan appropriate referral  | S                 | P                      | Y           | Bedside clinics<br>Skills Lab          | log book                        | 2                                     |  |                           |
| <b>Topic:Vaccine preventable Diseases - Tuberculosis</b> <span style="margin-left: 150px;"><b>Number of competencies: ( 20)</b></span> <span style="margin-left: 150px;"><b>Number of procedures that require certification: (03)</b></span> |  |                   |                        |             |  |                                 |                                       |  |                           |
| PE34.1   | Discuss the epidemiology, clinical features, clinical types, complications of Tuberculosis in Children and Adolescents | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Microbiology                                   | Respiratory Medicine      |
| PE34.2   | Discuss the various diagnostic tools for childhood tuberculosis  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Microbiology                                   | Respiratory Medicine      |
| PE34.3   | Discuss the various regimens for management of Tuberculosis as per National Guidelines                                 | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Microbiology, Community Medicine, Pharmacology | Respiratory Medicine      |
| PE34.4   | Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Control Program  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Microbiology, Community Medicine, Pharmacology | Respiratory Medicine      |
| PE34.5   | Able to elicit, document and present history of contact with tuberculosis in every patient encounter                   | S                 | SH                     | Y           | Bedside clinics, Skill lab             | Skill Assessment                |                                       |  | Respiratory Medicine      |
| PE34.6   | Identify a BCG scar  | S                 | P                      | Y           | Bedside clinics, Skills lab            | Skill Assessment                | 3                                     | Microbiology                                   | Respiratory Medicine      |
| PE34.7   | Interpret a Mantoux test   | S                 | P                      | Y           | Bedside clinics<br>Skills lab          | Skill assessment                | 3                                     | Microbiology                                   | Respiratory Medicine      |
| PE34.8   | Interpret a Chest Radiograph   | S                 | SH                     | Y           | Bedside clinics<br>Skills lab          | Skill assessment                |                                       | Radiodiagnosis                                 | Respiratory Medicine      |

| Number  | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods        | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---------|---|-------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|----------------------|---------------------------|
| PE34.9  | Interpret blood tests in the context of laboratory evidence for tuberculosis  | S                 | SH                     | N           | Bedside clinics,<br>Small group<br>discussion | log book                        |                                       | Microbiology         | Respiratory Medicine      |
| PE34.10 | Discuss the various samples for demonstrating the organism e.g. Gastric Aspirate, Sputum , CSF, FNAC  | K                 | KH                     | Y           | Bedside clinics,<br>Small group<br>discussion | Written/ Viva voce              |                                       | Microbiology         | Respiratory Medicine      |
| PE34.11 | Perform AFB staining  | S                 | P                      | Y           | DOAP session                                  | Log book/Journal                | 3                                     | Microbiology         | Respiratory Medicine      |
| PE34.12 | Enumerate the indications and discuss the limitations of methods of culturing M.Tuberculi   | K                 | KH                     | Y           | Small group<br>discussion                     | Written/ Viva voce              |                                       | Microbiology         | Respiratory Medicine      |
| PE34.13 | Enumerate the newer diagnostic tools for Tuberculosis including BACTEC CBNAAT and their indications   | K                 | K                      | N           | Lecture, Small group<br>discussion            | Written/ Viva voce              |                                       |                      |                           |
| PE34.14 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of fever in children   | K                 | KH                     | Y           | Lecture, Small group<br>discussion            | Written/ Viva voce              |                                       | Microbiology         |                           |
| PE34.15 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with exanthematous illnesses like Measles, Mumps, Rubella & Chicken pox | K                 | KH                     | Y           | Lecture, Small group<br>discussion            | Written/ Viva voce              |                                       | Microbiology         |                           |
| PE34.16 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Diphtheria, Pertussis, Tetanus.                                    | K                 | KH                     | Y           | Lecture, Small group<br>discussion            | Written/ Viva voce              |                                       | Microbiology         |                           |
| PE34.17 | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Typhoid  | K                 | KH                     | Y           | Lecture, Small group<br>discussion            | Written/ Viva voce              |                                       | Microbiology         |                           |



| Number   | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C                   | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods                         | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration            | Horizontal<br>Integration |
|--|---|-------------------------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|---------------------------------|---------------------------|
| PE34.18  | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Dengue, Chikungunya and other vector born diseases   | K                                   | KH                     | Y           | Lecture, Small group discussion                                | Written/ Viva voce              |                                       | Microbiology                    |                           |
| PE34.19  | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of children with Common Parasitic infections, malaria, leishmaniasis, filariasis, helminthic infestations, amebiasis, giardiasis | K                                   | KH                     | Y           | Lecture, Small group discussion                                | Written/ Viva voce              |                                       | Microbiology                    |                           |
| PE34.20  | Enumerate the common causes of fever and discuss the etiopathogenesis, clinical features, complications and management of child with Rickettsial diseases   | K                                   | KH                     | Y           | Lecture, Small group discussion                                | Written/ Viva voce              |                                       | Microbiology                    |                           |
| <b>Topic: The role of the physician in the community</b>   |   | <b>Number of competencies: (01)</b> |                        |             | <b>Number of procedures that require certification : (NIL)</b> |                                 |                                       |                                 |                           |
| PE35.1   | Identify, discuss and defend medicolegal, socio-cultural and ethical issues as they pertain to health care in children (including parental rights and right to refuse treatment)  | K                                   | KH                     | Y           | Small group discussion   | Written/ Viva voce              |                                       |                                 |                           |
| <p><b>Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication.</b><br/> <b>Column D: K – Knows, KH - Knows How, SH- Shows how, P- performs independently,</b><br/> <b>Column F: DOAP session – Demonstrate, Observe, Assess, Perform.</b><br/> <b>Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation</b></p> |   |                                     |                        |             |  |                                 |                                       |                                 |                           |
| <b>Integration</b>   |   |                                     |                        |             |  |                                 |                                       |                                 |                           |
| <b>Human Anatomy</b>   |   |                                     |                        |             |  |                                 |                                       |                                 |                           |
| AN25.4   | Describe embryological basis of:<br>1) atrial septal defect, 2)ventricular septal defect , 3)Fallot's tetralogy & 4) tracheo-oesophageal fistula  | K                                   | KH                     | Y           | Lecture  | Written/ Viva voce              |                                       | General Medicine,<br>Pediatrics | Physiology                |

| Number | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration                       | Horizontal<br>Integration |
|--------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|---------------------------|
| AN25.5 | Describe developmental basis of congenital anomalies, transposition of great vessels, dextrocardia, patent ductus arteriosus and coarctation of aorta                          | K                 | KH                     | Y           | Lecture                                | Written/ Viva voce              |                                       | General Medicine,<br>Pediatrics            | Physiology                |
| AN25.9 | Demonstrate surface marking of lines of pleural reflection, Lung borders and fissures, Trachea, Heart borders, Apex beat & surface projection of valves of heart               | K/S               | SH                     | Y           | Practical                              | Viva voce/ skill<br>assessment  |                                       | General Medicine,<br>Pediatrics            | Physiology                |
| AN63.2 | Describe anatomical basis of congenital hydrocephalus  | K                 | KH                     | N           | Lecture                                | Written                         |                                       | Pediatrics                                 | Physiology                |
| AN64.3 | Describe various types of open neural tube defects with its embryological basis  | K                 | KH                     | N           | Lecture                                | Written/ Viva voce              |                                       | Obstetrics &<br>Gynaecology,<br>Pediatrics |                           |
| AN74.1 | Describe the various modes of inheritance with examples  | K                 | KH                     | Y           | Lecture                                | Written                         |                                       | General Medicine,<br>Pediatrics            |                           |
| AN74.2 | Draw pedigree charts for the various types of inheritance & give examples of diseases of each mode of inheritance  | K                 | KH                     | Y           | Lecture                                | Written                         |                                       | General Medicine,<br>Pediatrics            |                           |
| AN74.4 | Describe the genetic basis & clinical features of Achondroplasia, Cystic Fibrosis, Vitamin D resistant rickets, Hemophilia, Duchene's muscular dystrophy & Sickle cell anaemia | K                 | KH                     | N           | Lecture                                | Written                         |                                       | General Medicine,<br>Pediatrics            |                           |
| AN75.1 | Describe the structural and numerical chromosomal aberrations  | K                 | KH                     | Y           | Lecture                                | Written                         |                                       | Pediatrics                                 |                           |
| AN75.2 | Explain the terms mosaics and chimeras with example  | K                 | KH                     | N           | Lecture                                | Written                         |                                       | Pediatrics                                 |                           |
| AN75.3 | Describe the genetic basis & clinical features of Prader Willi syndrome, Edward syndrome & Patau syndrome  | K                 | KH                     | N           | Lecture                                | Written                         |                                       | Pediatrics                                 |                           |
| AN75.4 | Describe genetic basis of variation; polymorphism and mutation   | K                 | KH                     | Y           | Lecture                                | Written                         |                                       | Pediatrics                                 |                           |

| Number              | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration                       | Horizontal<br>Integration |
|---------------------|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|---------------------------|
| AN75.5              | Describe the principles of genetic counselling   | K                 | KH                     | Y           | Lecture                                | Written                         |                                       | Pediatrics, Obstetrics<br>& Gynaecology    |                           |
| <b>Physiology</b>   |  |                   |                        |             |  |                                 |                                       |  |                           |
| PY11.6              | Describe physiology of Infancy   | K                 | KH                     | N           | Lecture, Small group<br>discussion     | Written/ Viva voce              |                                       | Pediatrics                                 |                           |
| PY11.9              | Interpret growth charts  | K                 | KH                     | Y           | Small group teaching                   | Practical/OSPE/ Viva<br>voce    |                                       | Pediatrics                                 |                           |
| PY11.10             | Interpret anthropometric assessment of infants   | K                 | KH                     | Y           | Small group teaching                   | Practical/OSPE/Viva<br>voce     |                                       | Pediatrics                                 |                           |
| <b>Biochemistry</b> |  |                   |                        |             |  |                                 |                                       |  |                           |
| BI5.3               | Describe the digestion and absorption of dietary proteins  | K                 | KH                     | Y           | Lecture, Small group<br>discussion     | Written/ Viva voce              |                                       | Pediatrics                                 |                           |
| BI5.4               | Describe common disorders associated with protein metabolism   | K                 | KH                     | Y           | Lecture, Small group<br>discussion     | Written/ Viva voce              |                                       | Pediatrics                                 |                           |
| BI7.3               | Describe gene mutations and basic mechanism of regulation of gene expression   | K                 | KH                     | Y           | Lecture, Small group<br>discussion     | Written/ Viva voce              |                                       | Pediatrics                                 |                           |
| BI7.4               | Describe applications of recombinant DNA technology, PCR in the diagnosis and treatment of diseases with genetic basis | K                 | KH                     | Y           | Lecture, Small group<br>discussion     | Written/ Viva voce              |                                       | Pediatrics, General<br>Medicine            |                           |
| BI8.1               | Discuss the importance of various dietary components and explain importance of dietary fibre                           | K                 | KH                     | Y           | Lecture, Small group<br>discussion     | Written/ Viva voce              |                                       | General Medicine,<br>Pediatrics, Pathology |                           |
| BI8.2               | Describe the types and causes of protein energy malnutrition and its effects   | K                 | KH                     | Y           | Lecture, Small group<br>discussion     | Written/ Viva voce              |                                       | General Medicine,<br>Pediatrics, Pathology |                           |

| Number              | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration                             | Horizontal<br>Integration |
|---------------------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--|---------------------------|
| BI8.5               | Summarize the nutritional importance of commonly used items of food including fruits and vegetables. (macro-molecules & its importance)   | K                 | KH                     | Y           | Lecture , Small group discussion       | Written/ Viva voce              |                                       | Community Medicine, General Medicine, Pediatrics |                           |
| BI10.5              | Describe antigens and concepts involved in vaccine development  | K                 | KH                     | Y           | Lecture , Small group discussion       | Written/ Viva voce              |                                       | Pathology, Pediatrics, Microbiology              |                           |
| <b>Pathology</b>    |   |                   |                        |             |  |                                 |                                       |  |                           |
| PA12.2              | Describe the pathogenesis of disorders caused by protein calorie malnutrition and starvation  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Biochemistry, Pediatrics                         |                           |
| PA21.2              | Classify and describe the etiology, pathogenesis and pathology of vascular and platelet disorders including ITP and hemophilias   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pediatrics                                       |                           |
| PA28.12             | Define, classify and describe the genetics, inheritance etiology, pathogenesis, pathology, laboratory, urinary findings, distinguishing features, progression and complications of cystic disease of the kidney | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | General Medicine, Pediatrics                     |                           |
| PA28.14             | Classify and describe the etiology, genetics, pathogenesis, pathology, presenting features, progression and spread of renal tumors  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pediatrics                                       |                           |
| PA31.4              | Enumerate and describe the etiology, hormonal dependency and pathogenesis of gynecomastia   | K                 | KH                     | N           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pediatrics, General Medicine                     |                           |
| PA35.2              | Classify and describe the etiology, genetics, pathogenesis, pathology, presentation sequelae and complications of CNS tumors  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pediatrics                                       |                           |
| <b>Microbiology</b> |   |                   |                        |             |  |                                 |                                       |  |                           |

| Number              | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration          | Horizontal<br>Integration |
|---------------------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|-------------------------------|---------------------------|
| MI1.8               | Describe the mechanisms of immunity and response of the host immune system to infections  | K                 | KH                     | Y           | Lecture                                | Written/ Viva voce              |                                       | Pediatrics                    | Pathology                 |
| MI1.9               | Discuss the immunological basis of vaccines and describe the Universal Immunisation schedule  | K                 | KH                     | Y           | Lecture                                | Written/ Viva voce              |                                       | Paediatrics                   |                           |
| MI1.10              | Describe the immunological mechanisms in immunological disorder (hypersensitivity, autoimmune disorders and immunodeficiency states) and discuss the laboratory methods used in detection | K                 | KH                     | Y           | Lecture                                | Written/ Viva voce              |                                       | Paediatrics                   |                           |
| MI3.1               | Enumerate the microbial agents causing diarrhea and dysentery. Describe the epidemiology, morphology, pathogenesis, clinical features, and diagnostic modalities of these agents          | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | General Medicine, Paediatrics | Pathology                 |
| MI3.2               | Identify the common etiologic agents of diarrhea and dysentery  | S                 | SH                     | Y           | DOAP session                           | Skill assessment                |                                       | General Medicine, Paediatrics |                           |
| MI5.1               | Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of meningitis   | K                 | KH                     | Y           | Lecture                                | Written/ Viva voce              |                                       | General Medicine, Paediatrics | Pathology                 |
| MI5.2               | Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of encephalitis   | K                 | KH                     | Y           | Lecture                                | Written/ Viva voce              |                                       | General Medicine, Paediatrics | Pathology                 |
| MI5.3               | Identify the microbial agents causing meningitis  | S                 | SH                     | Y           | DOAP session                           | Skill assessment                |                                       | General Medicine, Paediatrics |                           |
| <b>Pharmacology</b> |   |                   |                        |             |  |                                 |                                       |                               |                           |
| PH1.12              | Calculate the dosage of drugs using appropriate formulae for an individual patient, including children, elderly and patient with renal dysfunction  | K/S               | SH                     | Y           | Lecture, practical                     | Written/ Viva voce              |                                       | Pediatrics, General Medicine  |                           |

| Number                    | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods        | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration                          | Horizontal<br>Integration |
|---------------------------|---|-------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|---|---------------------------|
| PH1.43                    | Describe and discuss the rational use of antimicrobials including antibiotic stewardship program  | K                 | KH                     | Y           | Lecture                                       | Written/ Viva voce              |                                       | General Medicine<br>Pediatrics                | Microbiology              |
| PH1.56                    | Describe basic aspects of Geriatric and Pediatric pharmacology  | K                 | KH                     | Y           | Lecture                                       | Written/ Viva voce              |                                       | Pediatrics                                    |                           |
| PH2.4                     | Demonstrate the correct method of calculation of drug dosage in patients including those used in special situations   | S                 | SH                     | Y           | DOAP sessions                                 | Skills assessment               |                                       | Pharmacology,<br>General Medicine             |                           |
| <b>Community Medicine</b> |   |                   |                        |             |   |                                 |                                       |   |                           |
| CM3.3                     | Describe the aetiology and basis of water borne diseases /jaundice/hepatitis/ diarrheal diseases  | K                 | KH                     | Y           | Lecture, Small group discussion, DOAP session | Written/ Viva voce              |                                       | Microbiology, General<br>Medicine, Pediatrics |                           |
| CM5.1                     | Describe the common sources of various nutrients and special nutritional requirements according to age, sex, activity, physiological conditions               | K                 | KH                     | Y           | Lecture, Small group discussion               | Written/ Viva voce              |                                       | General Medicine,<br>Pediatrics               |                           |
| CM5.2                     | Describe and demonstrate the correct method of performing a nutritional assessment of individuals, families and the community by using the appropriate method | S                 | SH                     | Y           | DOAP session                                  | Skill Assessment                |                                       | General Medicine,<br>Pediatrics               |                           |
| CM5.3                     | Define and describe common nutrition related health disorders (including macro-PEM, Micro-iron, Zn, iodine, Vit. A), their control and management.            | K                 | KH                     | Y           | Lecture, Small group discussion               | Written/ Viva voce              |                                       | General Medicine,<br>Pediatrics               |                           |
| CM5.4                     | Plan and recommend a suitable diet for the individuals and families based on local availability of foods and economic status, etc in a simulated environment  | S                 | SH                     | Y           | DOAP session                                  | Skill Assessment                |                                       | General Medicine,<br>Pediatrics               |                           |

| Number | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods        | Suggested Assessment<br>methods      | Number<br>required<br>to certify<br>P | Vertical Integration         | Horizontal<br>Integration |
|--------|--|-------------------|------------------------|-------------|---|--------------------------------------|---------------------------------------|------------------------------|---------------------------|
| CM5.5  | Describe the methods of nutritional surveillance, principles of nutritional education and rehabilitation in the context of socio-cultural factors                  | K                 | KH                     | Y           | Lecture, Small group discussion               | Written/ Viva voce                   |                                       | General Medicine, Pediatrics |                           |
| CM5.6  | Enumerate and discuss the National Nutrition Policy, important national nutritional Programs including the Integrated Child Development Services Scheme (ICDS) etc | K                 | KH                     | Y           | Lecture, Small group discussion               | Written/ Viva voce                   |                                       | Pediatrics                   |                           |
| CM5.8  | Describe and discuss the importance and methods of food fortification and effects of additives and adulteration  | K                 | KH                     | Y           | Lecture, Small group discussion               | Written/ Viva voce                   |                                       | Pediatrics                   |                           |
| CM6.1  | Formulate a research question for a study  | K                 | KH                     | Y           | Small group, Lecture, DOAP session            | Written/ Viva voce/ Skill Assessment |                                       | General Medicine, Pediatrics |                           |
| CM6.2  | Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data       | S                 | SH                     | Y           | Small group discussion, Lecture, DOAP session | Written/ Viva voce/ Skill Assessment |                                       | General Medicine, Pediatrics |                           |
| CM6.3  | Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs                        | S                 | SH                     | Y           | Small group discussion, Lecture, DOAP session | Written/ Viva voce/ Skill Assessment |                                       | General Medicine, Pediatrics |                           |
| CM6.4  | Enumerate, discuss and demonstrate common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion     | S                 | SH                     | Y           | Small group discussion, Lecture, DOAP session | Written/ Viva voce/ Skill Assessment |                                       | General Medicine, Pediatrics |                           |
| CM8.1  | Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases  | K                 | KH                     | Y           | Small group discussion, Lecture               | Written/ Viva voce                   |                                       | General Medicine, Pediatrics | Microbiology, Pathology   |
| CM8.3  | Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case  | K                 | KH                     | Y           | Small group discussion, Lecture               | Written/ Viva voce                   |                                       | General Medicine, Pediatrics |                           |
| CM8.4  | Describe the principles and enumerate the measures to control a disease epidemic   | K                 | KH                     | Y           | Small group discussion, Lecture               | Written/ Viva voce                   |                                       | General Medicine, Pediatrics |                           |

| Number                                    | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods         | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration                 | Horizontal<br>Integration |
|---|--|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--------------------------------------|---------------------------|
| CM8.5                                     | Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease | K                 | KH                     | Y           | Small group discussion, Lecture                | Written / Viva voce             |                                       | General Medicine, Pediatrics         |                           |
| CM9.2                                     | Define, calculate and interpret demographic indices including birth rate, death rate, fertility rates  | S                 | SH                     | Y           | Lecture, Small group discussion, DOAP sessions | Skill assessment                |                                       | Obstetrics & Gynaecology, Pediatrics |                           |
| CM10.1                                    | Describe the current status of Reproductive, maternal, newborn and Child Health  | K                 | KH                     | Y           | Small group discussion, Lecture                | Written/ Viva voce              |                                       | Obstetrics & Gynaecology, Pediatrics |                           |
| CM10.2                                    | Enumerate and describe the methods of screening high risk groups and common health problems  | K                 | KH                     | Y           | Small group discussion, Lecture                | Written/ Viva voce              |                                       | Obstetrics & Gynaecology, Pediatrics |                           |
| CM10.3                                    | Describe local customs and practices during pregnancy, childbirth, lactation and child feeding practices   | K                 | KH                     | Y           | Small group discussion, Lecture                | Written/ Viva voce              |                                       | Obstetrics & Gynaecology, Pediatrics |                           |
| CM10.4                                    | Describe the reproductive, maternal, newborn & child health (RMCH); child survival and safe motherhood interventions   | K                 | KH                     | Y           | Small group discussion, Lecture                | Written/ Viva voce              |                                       | Obstetrics & Gynaecology, Pediatrics |                           |
| CM10.5                                    | Describe Universal Immunization Program; Integrated Management of Neonatal and Childhood Illness (IMNCI) and other existing Programs   | K                 | KH                     | Y           | Small group discussion, Lecture                | Written/ Viva voce              |                                       | Pediatrics                           |                           |
| <b>Forensic Medicine &amp; Toxicology</b> |  |                   |                        |             |  |                                 |                                       |                                      |                           |



| Number  | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods                  | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration   | Horizontal<br>Integration |
|---|--|-------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|--|---------------------------|
| FM1.9   | Describe the importance of documentation in medical practice in regard to medicolegal examinations, Medical Certificates and medicolegal reports especially<br>– maintenance of patient case records, discharge summary, prescribed registers to be maintained in Health Centres.<br>-- maintenance of medico-legal register like accident register.<br>-- documents of issuance of wound certificate<br>-- documents of issuance of drunkenness certificate.<br>-- documents of issuance of sickness and fitness certificate.<br>-- documents for issuance of death certificate.<br>-- documents of Medical Certification of Cause of Death - Form Number 4 and 4A<br>-- documents for estimation of age by physical, dental and radiological examination and issuance of certificate | K                 | KH                     | Y           | Lecture, Small group discussion                         | Written/ Viva voce              |                                       | Radiodiagnosis, General Surgery, General Medicine, Paediatrics |                           |
| FM2.27  | Define and discuss infanticide, foeticide and stillbirth   | K                 | KH                     | Y           | Lecture, Small group discussions                        | Written/ Viva voce              |                                       | Pediatrics   |                           |
| FM2.28  | Describe and discuss signs of intrauterine death, signs of live birth, viability of foetus, age determination of foetus, DOAP session of ossification centres, Hydrostatic test, Sudden infants death syndrome and Munchausen's syndrome by proxy  | K                 | KH                     | Y           | Lecture, Small group discussions, Autopsy, DOAP session | Written/ Viva voce/ OSCE        |                                       | Pediatrics, Human Anatomy                                      |                           |
| FM3.29  | Describe and discuss child abuse and battered baby syndrome  | K                 | K/KH                   | Y           | Lecture, Small group discussion                         | Written/ Viva voce              |                                       | Pediatrics   |                           |
| <b>Dermatology, Venereology &amp; Leprosy</b> |  |                   |                        |             |   |                                 |                                       |  |                           |
| DR5.1   | Describe the etiology, microbiology, pathogenesis, natural history, clinical features, presentations and complications of scabies  | K                 | KH                     | Y           | Lecture, Small group discussion                         | Written/ Viva voce              |                                       | Pediatrics   |                           |
| DR5.2   | Identify and differentiate scabies from other lesions  | S                 | SH                     | Y           | Bedside clinic  | Skill assessment                |                                       | Pediatrics   |                           |

| Number | COMPETENCY<br>The student should be able to  | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods          | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration                       | Horizontal<br>Integration |
|--------|--|-------------------|------------------------|-------------|---|---------------------------------|---------------------------------------|--|---------------------------|
| DR5.3  | Enumerate and describe the pharmacology, administration and adverse reaction of pharmacotherapies for scabies                            | K                 | KH                     | Y           | Lecture, Small group discussion                 | Written/ Viva voce              |                                       | Pediatrics                                 | Pharmacology              |
| DR6.1  | Describe the etiology, pathogenesis and diagnostic features of pediculosis   | K                 | KH                     | Y           | Lecture, Small group discussion                 | Written/ Viva voce              |                                       | Pediatrics                                 | Microbiology              |
| DR6.2  | Identify and differentiate pediculosis from other skin lesions   | S                 | SH                     | Y           | Bedside clinic                                  | Skill assessment                |                                       | Pediatrics                                 |                           |
| DR7.1  | Describe the etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of dermatophytes                       | K                 | KH                     | Y           | Lecture, Small group discussion                 | Written/ Viva voce              |                                       | Pediatrics                                 | Microbiology              |
| DR8.1  | Describe the etiology, microbiology, pathogenesis, clinical presentations and diagnostic features of common viral infections of the skin | K                 | KH                     | Y           | Lecture, Small group discussion                 | Written/ Viva voce              |                                       | Pediatrics                                 | Microbiology              |
| DR17.1 | Enumerate and identify the cutaneous findings in vitamin A deficiency  | K/S               | SH                     | Y           | Lecture, Small group discussion, Bedside clinic | Skill assessment/ Viva voce     |                                       | General Medicine, Pediatrics, Biochemistry |                           |
| DR17.2 | Enumerate and describe the various skin changes in Vitamin B complex deficiency  | K                 | KH                     | Y           | Lecture   | Written/ Viva voce              |                                       | General Medicine, Pediatrics, Biochemistry |                           |
| DR17.3 | Enumerate and describe the various changes in Vitamin C deficiency   | K                 | KH                     | Y           | Lecture   | Written/ Viva voce              |                                       | General Medicine, Pediatrics, Biochemistry |                           |
| DR17.4 | Enumerate and describe the various changes in Zinc deficiency  | K                 | KH                     | Y           | Lecture, Small group discussion                 | Written/ Viva voce              |                                       | General Medicine, Pediatrics, Biochemistry |                           |

**Anesthesiology**

| Number            | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration            | Horizontal<br>Integration |
|-------------------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|---------------------------------|---------------------------|
| AS2.1             | Enumerate the indications, describe the steps and demonstrate in a simulated environment basic life support in adults children and neonates   | S                 | SH                     | N           | DOAP session                           | Skill assessment                |                                       | General Medicine,<br>Pediatrics |                           |
| <b>Psychiatry</b> |   |                   |                        |             |  |                                 |                                       |                                 |                           |
| PS14.1            | Enumerate and describe the magnitude and etiology of psychiatric disorders occurring in childhood and adolescence                             | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pediatrics                      |                           |
| PS14.2            | Enumerate, elicit, describe and document clinical features in patients with psychiatric disorders occurring in childhood and adolescence      | S                 | SH                     | Y           | Bedside clinic, DOAP session           | Skill assessment                |                                       | Pediatrics                      |                           |
| PS14.3            | Describe the treatment of stress related disorders including behavioural, psychosocial and pharmacologic therapy                              | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pediatrics                      |                           |
| PS14.4            | Demonstrate family education in a patient with psychiatric disorders occurring in childhood and adolescence in a simulated environment        | S                 | SH                     | Y           | Bedside clinic, DOAP session           | Skill assessment                |                                       | Pediatrics                      |                           |
| PS14.5            | Enumerate and describe the pharmacologic basis and side effects of drugs used in psychiatric disorders occurring in childhood and adolescence | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pediatrics                      |                           |
| PS15.1            | Describe the aetiology and magnitude of mental retardation  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pediatrics                      |                           |
| PS15.2            | Describe and discuss intelligence quotient and its measurement  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pediatrics                      |                           |
| PS15.3            | Elicit and document a history and clinical examination and choose appropriate investigations in a patient with mental retardation             | K/S               | SH                     | Y           | Bedside clinic, DOAP session           | Skill assessment                |                                       | Pediatrics                      |                           |
| PS15.4            | Describe the psychosocial interventions and treatment used in mental retardation  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Pediatrics                      |                           |

| Number                             | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration     | Horizontal<br>Integration |
|------------------------------------|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|--------------------------|---------------------------|
| <b>General Medicine</b>            |   |                   |                        |             |  |                                 |                                       |                          |                           |
| IM23.1                             | Discuss and describe the methods of nutritional assessment in an adult and calculation of caloric requirements during illnesses             | K                 | KH                     | Y           | Lecture, Small group discussions       | Written/ Viva voce              |                                       | Physiology, Biochemistry | Pediatrics                |
| IM23.2                             | Discuss and describe the causes and consequences of protein caloric malnutrition in the hospital  | K                 | KH                     | Y           | Lecture, Small group discussions       | Written/ Viva voce              |                                       | Physiology, Biochemistry | Pediatrics                |
| IM23.3                             | Discuss and describe the aetiology, causes, clinical manifestations, complications, diagnosis and management of common vitamin deficiencies | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Physiology, Biochemistry | Pediatrics                |
| IM23.4                             | Enumerate the indications for enteral and parenteral nutrition in critically ill patients   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       | Physiology, Biochemistry | Pediatrics                |
| <b>Obstetrics &amp; Gynecology</b> |   |                   |                        |             |  |                                 |                                       |                          |                           |
| OG1.2                              | Define and discuss perinatal mortality and morbidity including perinatal and neonatal mortality and morbidity audit                         | K                 | KH                     | Y           | Lecture, Small group discussion        | Short notes                     |                                       | Community Medicine       | Pediatrics                |
| OG18.1                             | Describe and discuss the assessment of maturity of the newborn, diagnosis of birth asphyxia, principles of resuscitation, common problems   | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                          | Pediatrics                |
| OG18.2                             | Demonstrate the steps of neonatal resuscitation in a simulated environment  | S                 | SH                     | Y           | DOAP session                           | Skill assessment                |                                       |                          | Pediatrics                |
| OG18.3                             | Describe and discuss the diagnosis of birth asphyxia  | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                          | Pediatrics                |
| OG18.4                             | Describe the principles of resuscitation of the newborn and enumerate the common problems encountered                                       | K                 | KH                     | Y           | Lecture, Small group discussion        | Written/ Viva voce              |                                       |                          | Pediatrics                |

| Number  | COMPETENCY<br>The student should be able to   | Domain<br>K/S/A/C | Level<br>K/KH/<br>SH/P | Core<br>Y/N | Suggested Teaching<br>Learning methods               | Suggested Assessment<br>methods | Number<br>required<br>to certify<br>P | Vertical Integration | Horizontal<br>Integration |
|---|---|-------------------|------------------------|-------------|--|---------------------------------|---------------------------------------|----------------------|---------------------------|
| <b>Physical Medicine &amp; Rehabilitation</b> |   |                   |                        |             |  |                                 |                                       |                      |                           |
| PM3.1   | Describe and discuss the clinical features, types, evaluation, diagnosis and management of cerebral palsy   | K                 | KH                     | Y           | Lecture, Small group discussion                      | Written/ Viva voce              |                                       | Human Anatomy        | Pediatrics                |
| PM3.2   | Recognize, describe and discuss the spectrum of multiple disability : cognitive, motor, visual and hearing in cerebral palsy                              | K                 | KH                     | Y           | Lecture, Small group discussion                      | Written/ Viva voce              |                                       |                      | Pediatrics                |
| PM3.3   | Recognize, describe and discuss the role of special education in children with learning disabilities  | K                 | K                      | Y           | Lecture, Small group discussion                      | Written/ Viva voce              |                                       |                      | Pediatrics                |
| PM3.4   | Demonstrate spasticity, rigidity and dystonia in children with cerebral palsy   | S                 | SH                     | Y           | DOAP session, Small group discussion, Bedside clinic | Skill assessment                |                                       |                      | Pediatrics                |
| PM3.5   | Enumerate the indications and describe the therapies for spasticity including medications, serial casts, nerve blocks, botulinum toxin injections         | K                 | KH                     | Y           | Lecture, Small group discussion                      |                                 |                                       | Pharmacology         | Pediatrics, Orthopedics   |
| PM3.6   | Enumerate the indications and describe prevention of joint subluxations and contractures by proper positioning, and use of special chairs, and appliances | K                 | KH                     | Y           | DOAP session, Small group discussion, Bedside clinic |                                 |                                       |                      | Pediatrics                |
| PM3.7   | Enumerate the first aid measures to be used in patients with seizures   | K                 | K                      | Y           | Lecture, Small group discussion                      | Written/ Viva voce              |                                       |                      | Pediatrics                |
| PM4.2   | Describe and discuss the principles of management of chronic pain and role of common modalities (moist heat, ultrasound, Short wave diathermy)            | K                 | KH                     | Y           | Lecture, Small group discussion                      | Written/ Viva voce              |                                       |                      | Pediatrics                |