SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH
(A Deemed to be University Declared under Section 3 of UGC Act, 1956)
Comprising Sri DevarajUrs Medical College
[Constituent Unit of Sri DevarajUrs Educational Trust for Backward Classes (Regd.)]
TAMAKA, KOLAR-563103, KARNATAKA, INDIA
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(With effect from 2019-2020 batches)

Competency Based Postgraduate Curriculum for Doctor of Medicine Pediatrics

Approved as per BOM-56-2019, (Resolution No-LVI.06) Dated-20/12/2019

REGULATIONS GOVERNING

POST GRADUATE DEGREE PROGRAMMES

CURRICULUM 2019-2020

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH

Comprising Sri Devaraj Urs Medical College

A Deemed To Be University

Declared under section 3 of UGC, Act,1956,
MHRD GOI NO.F,9-36/2006-U.3(A), Dt.25th may 2007
Post box No.62, Tamaka, Kolar-563101, Karnataka, INDIA
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REGULATIONS AND CURRICULA
FOR
POST GRADUATE DEGREE PROGRAMMES
IN
MEDICAL SCIENCES
2019-2020

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Edition Year: 2020 **Published by SDUAHER**

VISION:

"UNIVERSITY OF EXCELLENCE - KNOWLEDGE FOR POSTERITY"

MISSION:

1. To be a global centre of excellence for Teaching, Training and Research in the field of Higher education.
2. To inculcate scientific temper, research attitude and social accountability amongst faculty and students.
3. To promote with value based education for the overall personality development and leadership qualities to serve the humanity.

OBJECTIVES:

1. To provide need based infrastructure and facilities to students to become responsible professionals with social commitment and accountability.
2. To implement effectively innovative programs in teaching learning and evaluation.
3. To impart scientific and socio cultural temperament among students to forge national identity and needs.
4. To provide instruction and training in Basic and advanced branches of learning.
5. To provide facilities for research for the advancement and dissemination of knowledge.
6. To undertake extra mural studies, consultancy, extension programmes and field outreach services for the development of society.
7. To collaborate with other Universities, Institutions of excellence and research organizations within the country and outside for the purpose of teaching, training and research.
8. To undertake need based activities for the betterment of socially and educationally backward society.

At a glance this logo is abstract, yet it contains the vital ingredients for an institution like Sri Devaraj Urs Academy of Higher Education and Research, Tamaka, Kolar.

The institution's medical background, Humanitarian values, Compassion,

Approachability, Social Commitment and the subsequent research towards the most precious thing, the human life, is the core theme.

The graphic form of a person in the centre of a bud represents the humanity. It denotes the growing process of life and its existence. And the two hands safeguarding them show the care and a sense of security. It is also capable of holding something within the vast expanse of knowledge by the University for the People's benefit. Hence, the motto "Knowledge for Posterity" is very appropriate and gives a punch in Red. The four light blue half circles (smaller to bigger) depict the unending quest for knowledge and imparting it to a wider horizon, growing higher and higher.
And finally, the whole unit is embedded in a "D" shaped graphic template as background to give it a corporate identity.

COLORS USED:

Deep Blue: Credible, Confident and Dependable. Represents Peace, Tranquility, Stability, Harmony, Trust, Security, Cleanliness and Loyalty

Light Blue: For Sky and Water (color scheme for 4 half circles)

Red: A dominant color for strengths.

Green: For Nature, Health and Generosity. It is cool quality soothes and has great healing powers

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No. SDUAHER/KLR/ADMN/1322/2020-21 Date:12/10/2020

NOTIFICATION

Sub: Regulations, curricula and syllabi of Postgraduate medical degree programmes in Preclinical, Paraclinical and clinical subjects- reg

Ref.

I. **Proceedings of the Academic Council meetings**
II. **Proceeding of the Board of Management meetings**
III. **MCI notifications**
IV. **SDUAHER notification:**

Academic Council Meetings		**Board of Management Meetings**	
19th	17.11.2014	34th	19.06.2015
21st	25.04.2015	36th	04.12.2015
22nd	18.11.2015	44th	23.06.2017
27th	29.04.2017	45th	09.11.2017
28th	04.11.2017	48th	20.06.2018
30th	05.05.2018	50th	22.12.2018
31st	03.11.2018	54th	06.07.2019
33rd	04.06.2019	56th	20.12.2019
34th	15.11.2019	59th	09.10.2020
36th	30.09.2020		

Agenda discussed:

- Objectives of external postings of Post Graduates
- Internal & External postings of PG's with assessment tools
- Minimum marks to be scored in PG theory examinations
- Topics to be included in Forensic medicine and toxicology in paper 4 for PG students
- Work placed based assessment for PG students
- Introduction of Assessment of AETCOM in formative/summative assessment
- Design and development of E-portfolio for all PG's
- Patient handover as common EPA for all departments
- Preparation of Question paper from question bank using software

- Coding of answer booklet by software enabled barcoding
- Development of CBME in PG programmes
- Quarterly formative assessment as an assessment tool for all PGs
- Start course in MD psychiatry
- Implement E- Portfolio of PG's
- Discontinuation of practice for 5th evaluation in PG exam
- Post graduate training programme MCI-PG Medical Education Regulations 2000, amended upto May 2018
- Approval of EPA's as competency based medical training for PG's
- Work placed based assessment as part of quarterly assessment for PG's
- PLO's for all programmes

V. MCI Notifications

- MCI Notification dated 09-12-2009, vide No.MCI.18(1)/2009-Med.55455
- No. MCI-23(1)/2014/Med/153433 Dated 28-01-2015
- MCI Guidelines 2017(CBME based)
- MCI postgraduate medical education regulations 2000 amended upto 2018
- (clause 13.2,gazette notification dated 05/04/2018)
- Basic Programme in Biomedical Research(MCI-23(1)/2019-Med./141602 dated 27-08-2019).
- MCI-12(2)/2019-Med.Misc./189334.- Dated:12th February 2020
- MCI-18(1)/2020-Med./121415.-date 16/09/2020- (District Residency Programme' (DRP)

VI. Office Memorandum No. SDUAHER / KLR/ ADMN /8071/2019- 20 Dated 22/06/2019

VII. SDUAHER / KLR/ ADMN /1571/2019-20 dated 12/09/2019

REGULATIONS FOR POST GRADUATE DEGREE PROGRAMME IN MEDICAL SCIENCES

CHAPTER- I

1. Branches of Study

1.1 Postgraduate Degree Programme
The following programmes may be pursued.

A. M.D. (Doctor of Medicine)

1. Anatomy
2. Physiology
3. Biochemistry
4. Pharmacology
5. Pathology
6. Microbiology
7. Forensic Medicine
8. Community Medicine
9. General Medicine
10. Dermatology, Venereology and Leprosy
11. Anesthesiology
12. Paediatrics
13. Radio-Diagnosis
14. Psychiatry

B. M.S. (Master of Surgery)

1. General Surgery
2. Obstetrics and Gynecology
3. Orthopedics
4. Ophthalmology
5. OTO-Rhino-Laryngology

1.2. Eligibility for Admission

1.2.1 MD / MS Degree Programme: A candidate affiliated to this academy and who has passed final year M.B.B.S. examination after pursuing a study in a medical college recognised by the Medical Council of India, from arecognised Medical College affiliated to any other Academy recognised as equivalent thereto, and has completed one year compulsory rotating internship in a teaching Institution or other Institution recognised by the Medical Council of India, and has obtained permanent registration of any State Medical Council will be eligible foradmission.

1.2.2 A Candidate seeking admission should have successfully cleared the qualifying examination – NEET (National Eligibility cum Entrance Test) conducted by NBE (National Board of Examination).

1.3. Obtaining Eligibility Certificate by the Academy before making Admission

No candidate will be admitted for any postgraduate degree programme unless the candidate has obtained and produced the eligibility certificate issued by the Academy. The candidate has to make an application to the Academy with the following documents along with the prescribed fee:

1. S.S.L.C Marks card
2. 10+2 Certificate
3. All MBBS Marks Cards
4. Internship Completion Certificate
5. Attempt / Academic certificate
6. Degree Certificate
7. Transfer Certificate
8. Migration Certificate
9. Study/Bonafide Certificate
10. Character & Conduct certificate
11. MCI Recognisized Certificate by college
12. Karnataka Medical Council/State medical council
13. MCC Allotment Letter
14. NEET Admission Ticket
15. NEET Rank card
16. Caste (SC/ST) /OBC certificate (domicile) & Income Certificate
17. Aadhar card of both candidate and parents / sponsors
18. Bond for SR Ship
19. Remaining years fee bond

NOTE: The NRI/NRI Sponsor students have to submit the documents as per the MCC/DGHS Criteria for NRI status

Candidates should obtain the Eligibility Certificate before the last date for admission as notified by the Academy.

A candidate who has been admitted to postgraduate programme should register his / her name in the Academy within a month of admission after paying the registration fee.

1.4. Intake of Students

The intake of students to each programme will be in accordance with the ordinance in this behalf.

1.5. Duration of Study

a) M.D /M.S Degree Programme

The programme of study will be for a period of 3 years consisting of 6 academic terms.

1.6. Method of training

The training of postgraduate for degree will be residency pattern with graded responsibilities in the management and treatment of patients entrusted to his/her care. The participation of the students in all facets of educational process is essential. Every candidate should participate in seminars, group discussions, grand rounds, case demonstration, clinics, journal review meetings, CPC and clinical meetings. Every candidate should participate in the teaching and training programme of undergraduate students. Training includes involvement in laboratory and experimental work and research studies.

1.6.1. Teaching methodology

1.6.1.1 Includes Didactic lectures, small group discussion such as seminars, journal clubs, symposia, reviews and guest lectures for acquiring theoretical knowledge.

1.6.1.2 Bedside teaching, grand rounds, structured interactive group discussions and clinical demonstrations should be the hallmark of clinical/practical learning with appropriate emphasis on e-learning. Student should have hand-on training in performing various procedures and ability tointerpret varioustests/investigations.

1.6.1.3 Exposure to newer specialized diagnostic/therapeutic procedures concerning her/his subject should be given.

1.6.4 Self-learning tools like assignments and case-based learning should be promoted.

1.6.2. Clinical postings and Rotation of posting

Basic medical sciences students will be posted to allied and relevant clinical departments or institutions. Students working in clinical departments will be posted to basic medical sciences and allied speciality departments or institutions. It should be done as concurrent studies during the 1st year of training Similarly Inter-unit rotation in the department should be done for a period of up to one year. Rotation in appropriate related subspecialties **should not extend for a period exceeding 06 months.** Postings to other specialty departments will be during the second year.

All postgraduates' students pursuing MD/MS in broad specialities shall undergo a compulsory residential rotation of three months in District Hospital / District Health system as a part of the course curriculum. Such rotation shall take place in the 3rd or 4th or 5th semester of the postgraduates programme. This rotation shall be termed as District residency programme and the postgraduate medical student undergoing training shall be termed as a District Resident.

Satisfactory completion of the District Residency shall be an essential condition before the candidate is allowed to appear in the final examination of the respective postgraduate course. The District Residency Programme Coordinator (DRPC) shall issue certificate of satisfactory completion of DRP and report on the performance of the District Resident on a prescribed format to the concerned Medical College and the Government of State/Union Territory. No. MCI-18(1)/2020-Med./121415.—date16/09/2020

1.6.3. Clinical meetings:

Clinical meetings will be conducted within the department weekly and also inter departmental meetings will be conducted monthly to discuss uncommon/interesting cases.

1.6.4 Log book:

Each student should maintain a logbook and document day to-day activities like documentation of ward work, teaching and learning activities , clinical case discussion, procedures performed , seminars, journal clubs, symposium ,CPC meets, inter-unit/interdepartmental teaching sessions, mortality meets, workshops, CME/conferences .The Log books will be checked and assessed periodically by the faculty members imparting the training. This will in turn be evaluated/assessed by an external reviewer appointed by the Director of PG Studies biannually during the months of July and January. The log book should be preserved and presented at the time of summative examinations conducted by the Academy.

1.6.5 Research activities:

1.6.5.1 The student should know the basic concepts of research methodology plan a research project and be able to retrieve information from the library. The student should have a basic knowledge of statistics.

1.6.5.2 A postgraduate student of a postgraduate degree programme in broad specialities should present one poster presentation, read one paper at a national/state conference and publish one research paper which should be published /accepted for publication/sent for publication during the period of his postgraduate studies so as to make him eligible to appear at the postgraduate degree examination. MCI Notification No.18(1)/2009/ medicine/55455 Dated:09-12-2009

1.6.5.3 Department should encourage e-learning activities.

1.6.6 Basic Programme in Biomedical Research:

In order to improve the research skills of post-graduate students, the Board of Governors (BoG) has recommended a uniform research methodology programme across the country, the online programme, "Basic programme in Bio-medical Research", will be offered by ICMR-National Institute of Epidemiology (ICMR-NIE), Chennai (www.nie.gov.in). The programme will explain fundamental concepts in

Research methodology. This programme is being offered through SWAYAM programme of ministry of human resource development through SWAYAM NPTEL (http://swayam.gov.in/nc details/NPTEL)

1.6.7 Synopsis and Dissertation:

Every candidate will submit to the Registrar of the Academy in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within six months from the date of commencement of the programme on or before the dates notified by the Academy. The synopsis will be sent through the properchannel.

Such synopsis will be reviewed and the dissertation topic will be registered by the Academy. No change in the dissertation topic or guide will be made without prior approval of the Academy.

Every candidate pursuing MD/MS degree programme is required to carry out work on a selected research project under the guidance of a recognized post graduate teacher. The results of such a work will be submitted in the form of a dissertation.

The dissertation is aimed to train a post graduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis and comparison of results and drawingconclusions.

The dissertation should be written under the following headings:

- Introduction
- Aims or Objectives of study
- Review of Literature
- Material and Methods
- Results
- Discussion
- Conclusion
- Summary
- References
- Tables
- Annexures

The written text of dissertation will be not less than 50 pages and will not exceed 150 pages excluding references, tables, questionnaires and other annexures. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.69") and bound properly. Spiral binding should be avoided. The dissertation will be certified by the guide, Head of the department and Head of theInstitution.

Six hard copies of dissertation and one soft copy thus prepared will be submitted to

the Controller of Examination (CoE), six months before final examination on or before the dates notified by the Academy.

The dissertation will be valued by examiners appointed by the Academy. Approval of dissertation work is an essential precondition for a candidate to appear in the Academy examination.

Guide: The academic qualification and teaching experience required for recognition by this Academy as a guide for dissertation work is as per Medical Council of India, Minimum Qualifications for Teachers in Medical Institutions Regulations, 1998. Teachers in a medical college/institution having a total of eight years teaching experience out of which at least four years teaching experience as Assistant Professor with at least one research publication in indexed journals gained after obtaining post graduate degree will be recognized as post graduate teachers. (No.MCI- 12(2)/2019-Med.Misc./189334.- Dated: 12th February 2020)

Co-guide: may be included provided the work requires substantial contribution from a sister department or from another medical institution recognized for teaching/training by Sri Devaraj Urs Academy /Medical Council of India. The co- guide will be a recognized post graduate teacher of Sri Devaraj Urs Academy.

Change of guide: In the event of a registered guide leaving the college for any reason or in the event of death of guide, guide may be changed with prior permission from the academy.

1.6.8 Journal Club:

Journal club will be conducted once a week. All the PG students are expected to attend and actively participate in discussion and enter the relevant details in the log book. Further, every candidate must make a presentation from the allotted journal(s), selected articles, at least four times a year and a total of 12 presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment (See checklist - I in Chapter V). A time table with names of the student and the moderator should be announced periodically, (Quarterly).

1.6.9 Subject Seminar:

Subject seminar will be conducted once a week. All the PG students are expected to attend and actively participate in discussion and enter the relevant details in the log book, Further, every candidate must present selected topics at least four times a year and a total of 12 seminar presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment (See checklist-II in Chapter V). A timetable for the subject with names of the student and the moderator should be announced periodically, (Quarterly).

1.6.10 Student Symposium:

Student Symposium as an additional inter departmental programme will be conducted periodically, once in three months. The evaluation may be similar to that described for subject seminar.

1.6.11 Ward Rounds:

Ward rounds are service or teaching rounds.

i. ***Service Rounds:*** Postgraduate students and Interns will do every day for the care of the patients. Newly admitted patients should be worked up.by the PGs and presented to the seniors the following day.

ii. ***Teaching Rounds:*** Every unit will have 'grand rounds' for teaching purpose.
A diary should be maintained for day to day activities by the students.
Entries of (i) and (ii) should be made in the Log book.

1.6.12 Clinico-Pathological Conference:

CPC will be conducted once in two months for all post graduate students. Presentation will be done by rotation. If cases are not available due to lack of clinical postmortems, it could be supplemented by published CPCs.

1.6.13 Inter Departmental Meetings:

These will be conducted once a month. These meetings will be attended by post graduate students and relevant entries must be made in the Log Book.

1.6.14 Teaching & Learning Skills:

Post graduate students must teach under graduate students (Eg. medical, nursing) by taking demonstrations, bed side clinics, tutorials, lectures etc.

Assessment is made using a checklist by surgery faculty as well as students. (See model checklist -III in Chapter V). Record of their participation should be documented in the Log book. Training of post graduate students in Educational Science and Technology is recommended.

Further, all postgraduate students are required to attend at least about 35 hours of didactic lecture as notified by the individual departments.

1.6.15 Entrustable Professional Activity:

EPAs are units of professional practice, defined as tasks or responsibilities to be entrusted to the unsupervised execution by a trainee once he or she has attained sufficient specific competence. EPAs are independently executable, observable, and measurable in their process and outcome, and therefore, suitable for entrustment decisions. The Entrustable professional activity (EPA) concept allows faculty to make competency-based decisions on the level of supervision required by trainees. The Academy has identified few such EPA's for all students in various degree programme. These are:

1. EPA 1: Gather a history and perform a physical examination

2. EPA 2: Prioritize a differential diagnosis following a clinical encounter
3. EPA 3: Recommend and interpret common diagnostic and screening tests
4. EPA 4: Obtain informed consent for tests and / or procedures
5. EPA 5: Recognize a patient requiring urgent or emergent care and initiate evaluation and management
6. EPA 6: Give or receive a patient handover to transition care responsibility
7. EPA 7: Undertake complete patient monitoring including the preoperative and post-operative care of the patient.
8. EPA 8: Provide basic and advanced lifesaving support services in emergency situations
9. EPA 9: Collaborate as a member of an inter-professional team
10. EPA 10: Perform general procedures of a physician
11. EPA 11: Enter and discuss orders and prescriptions
12. EPA 12: Prepare a comprehensive discharge summary.
13. EPA 13: Form clinical questions and retrieve evidence to advance patient care.

However in addition to these common EPA's individual departments are advised to develop their own EPA's.

1.7. Continuing Medical Education (CME):

Every PG student must attend at least 2 CME programes either at state/regional /zonal/national levels.

1.8. Conferences:

Attending conferences is optional. However it has to be encouraged. All students are encouraged to attend conferences (at state/national/international levels) to enable them to make paper/poster presentations, which is a mandatory requirement to fulfill before appearing for final examinations.

1.9. Attendance, Progress and Conduct:

- A candidate pursuing degree programme will work in the concerned department of the institution for the full period as a full time student. No candidate is permitted to run a clinic/laboratory/nursing home while studying postgraduate programme.
- Academic term of 6 months will be taken as a unit for the purpose of calculating attendance. The candidate should have 80% attendance in each academic term of 6 months.

- Every student will attend symposia, seminars, conferences, journal review meetings, grand rounds, CPC, case presentation, clinics and lectures during each year as prescribed by the department and not absent himself / herself from work without valid reasons.
- Every candidate is required to attend a minimum of 80% of the training during each academic term of the post graduate programme. Provided further, leave of any kind will not be counted as part of academic term without prejudice to minimum 80% attendance of training period every term.
- All the candidates joining the Post Graduate training programme will work as 'Full Time Residents' during the period of training and will attend not less than 80% (Eighty percent) of the imparted training during each academic term. Including assignments, full time responsibilities and participation in all facets of the education process.
- Any student who fails to complete the programme in the manner stated above will not be permitted to appear for the Academy Examinations.
- A Postgraduate student of a postgraduate degree programme would be required to present one poster presentation, to read one paper at a national/state conference and to present one research paper which should be published / accepted for publication/sent for publication during the period of postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.
  Ref: As MCI Notification dated 09-12-2009, vide No.MCI.18 (1)/2009- Med.55455 and Para No.4.

Procedure for defaulters:

Every department will have a committee containing Head of the department and PG guides to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the, requirements in spite of being given adequate chances to set himself or herself right.

2 Monitoring Progress of Studies:

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring will be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects. Checklists are given in Chapter V.

The learning out comes to be assessed should include:

- Personal Attitudes,
- Acquisition of Knowledge,
- Clinical and operative skills,
- Teaching skills and
- Dissertation.

a. Personal Attitudes:

The essential items are:

- Caring attitudes
- Initiative
- Organisational ability
- Potential to cope with stressful situations and undertake responsibility
- Trustworthiness and reliability
- To understand and communicate intelligibly with patients and others
- To behave in a manner which establishes professional relationships with patients and colleagues
- Ability to work in team
- A critical enquiring approach to the acquisition of knowledge

The methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors, self, peers, faculty from the unit and nurses. (Multi source feedback MSF)checklistXII

b. Acquisition of Knowledge:

The methods used comprise of

2.1 Log book: (Check List – XIII Chapter – V)

'Log Book' which records participation in various teaching / learning activities by the students. The number of activities attended and the number in which presentations are made must be recorded. The log book will periodically be validated by the supervisors. Some of the activities are listed. During the training period, the post graduate student should maintain a Log Book indicating various teaching / learning activities, duration of the postings/work done in Wards including super specialty, OPDs and Casualty. This should indicate the specified number of cases for clinical discussion, procedures and operations observed, assisted and performed /presented seminars and review articles from various journals in inter- unit/inter departmental teaching sessions.

The purpose of the Log Book is to:

- Help maintain a record of the work done during training,
- Enable Consultants to have direct information about the work; intervene if necessary,
- Use it to assess the experience gained periodically.

The log book will be used to aid the internal evaluation of the student.
The Log books will be checked and assessed periodically, monthly basis by guide / head of the unit/ head of the department and biannually by external reviewer.

Procedure for defaulters:
Every department will have a committee to review such situations. The "defaulting candidate is counseled by the guide and head of the department. In extreme cases of default the departmental committee will recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the requirements in spite of being given adequate chances to set himself or herself right

2.2 Journal Review Meeting (Journal Club):
The ability to do literature search, in depth study, presentation skills, and use of audio-visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist (see Model Checklist -I, in Chapter V)

2.3 Seminars / Symposia:
The topics will be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio- visual aids will be assessed using a checklist (see Model Checklist -II, Chapter V)

2.4 Clinico'-Pathological conferences:
This will be a multidisciplinary case study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenter(s) are to be assessed using a check list similar to that used for seminar.

2.5 Surgical Audit:
Periodic morbidity and mortality meeting must be held. Attendance and participation in these must be insisted upon. This may not be included in assessment.

2.6 Clinical skills
Day to Day work: Skills in outpatient and ward work will be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills (see Model Checklist -V, Chapter V). – Mini CEX (Model check list VII, Chapter V)

2.7 Clinical meetings (Clinical Presentations :) *:*
Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list (see Model checklist V, Chapter V).

2.8 Clinical and Operative skills:

The candidate will be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by DOPS (Model check list VI, Chapter V). Particulars are recorded by the student in the log book.

2.9 Teaching skills:

Post graduates are required to teach undergraduate medical students and paramedical students, if any *(as a part of Post graduate training)*. This performance should be based on assessment by the faculty members of the department and from feedback from the undergraduate students (See Model checklist III, Chapter V) - Microteaching Pedagogy (Model check list VIII, Chapter V)

2.10 Dissertation in the Department:

Periodic presentations must be made in the department. Initially the topic selected is to be presented before submission to the Academy for registration and again before finalization for critical evaluation and before final submission of the completed work (See Model Checklist IX & X, Chapter V)

2.11 Periodic tests:

The concerned departments will conduct quarterly tests. The final test will be held three months before the final examination. The tests may include written papers, practical's / clinical and viva voce. Records and marks obtained in such tests will be maintained by the Head of the Department and sent to the Academy, when called for.

2.12 Work diary / Log Book-

Every candidate will maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention must be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.

2.13 Records:

Monthly and quarterly reviews of records, log books and marks obtained in tests will be maintained by the Head of the Department and will be made available to the Academy, when called for.

3. ASSESSMENT:

3.1 Formative Assessment

It is essential to monitor the learning progress of each candidate through **continuous appraisal and regular assessment.** It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring to be done by the staff of the department based on participation of students in various teaching /learning

activities. It may be structured and assessment be done using checklists that assess, various aspects. This includes assessment of patient care, procedural & academic skills, interpersonal skills, professionalism, self-directed learning and ability to practice in the system.

Checklists are given in Chapter-V

Assessment during the MS/MD training should be based on:

Assessment at end of rotation (Quarterly Postgraduate Student's Appraisal Form) by the Unit Head. The student to be assessed periodically as per categories listed in **Postgraduate Student Appraisal Form** (See Model checklist-X, Chapter V).

Multisource Feedback (MSF) – Quarterly

MSFs should be obtained quarterly from:- 2 from faculty of the unit/department; 2 from peers posted in the unit; 2 from interns,2 from staff nurses from the areas attached to the unit,2 from patient/patient relative. (Checklist XII – Chapter V)

Periodic assessment –The Quarterly tests may include written papers (theory), practical's / clinical and viva voce.

Quarterly Postgraduate Student's Appraisal Form (See Model checklist-X I, Chapter V).

- Journal based/ recent advances learning
- Patient based or Skill based learning
- Self-directed learning and teaching
- Departmental & interdepartmental learning activity
- External & Outreach activities/ Continuing Medical Education (CME)
- Attendance, Progress and Conduct

A candidate pursuing degree programme should work in the concerned department of the institution for the full period as a full time student. No candidate is permitted to run a clinic/laboratory/nursing home while studying postgraduateprogramme.

Academic term of 6 months will be taken as a unit for the purpose of calculating attendance. Every student will attend symposia, seminars, conferences, journal review meetings, grand rounds, CPC, case presentation, clinics and lectures during each year as prescribed by the department and not absent himself / herself from work without valid reasons.

Every candidate is required to attend a minimum of 80% of the training during each academic term of the post graduate programme. Provided further, leave of any kind will not be counted as part of academic term without prejudice to minimum 80% attendance of training period every term.

All the candidates joining the Post Graduate training programme will work as 'Full Time Residents' during the period of training and will attend not less than 80% (Eighty percent) of the imparted training during Academic Term of 6 months including assignments, full time responsibilities and participation in all facets of the education process.
Any student who fails to complete the programme in the manner stated above will not be permitted to appear for the Academy Examinations.

A Postgraduate student of a postgraduate degree programme in broad specialities/super specialities would be required to present one poster presentation, to read one paper at a national/state conference and to present one research paper which should be published / accepted for publication/sent for publication during the period of postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.
Ref: As MCI Notification dated 09-12-2009, vide No.MCI.18 (1)/2009-Med.55455 and Para No.4.

Procedure for defaulters:

Every department should have a committee containing Head of the department and PG guides to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the, requirements in spite of being given adequate chances to set himself or herself right.

3.2 Scheme of examinations

Summative assessment

The summative examination would be carried out as per the Rules given in POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000 and amended up to 2018. (The Clause 14 under the heading "EXAMINATION" shall be substituted in terms of Gazette Notification published on 05.04.2018).
The examination will be in three parts:

3.2.1 DISSERTATION

Every post graduate student will carry out work on an assigned research project under the guidance of a recognized Post Graduate Teacher, the result of which will be written and submitted in the form of a dissertation. Work for writing the dissertation is aimed at contributing to the development of a spirit of enquiry, besides exposing the candidate to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature. Dissertation will be submitted at

least six months before the Theory and Clinical / Practical examination. The dissertation will be examined by a minimum of three examiners; one internal and two external examiners, who will not be the examiners for Theory and Clinical examination. A candidate will be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the dissertation by the examiners.

3.2.2. THEORY

There will be four question papers, each of three hours duration. Each paper will consist of ten questions each question carrying 10 marks, so the total marks for each paper will be 100. Questions on recent advances maybe asked in any or all the papers. The examinations will be organised on the basis of 'Grading'or 'Marking system' to evaluate and to certify candidate's level of knowledge, skill and competence at the end of the training. The Clause 14 under the heading "EXAMINATION" shall be substituted in terms of Gazette Notification published on 05.04.2018 and the same is as under:-

Obtaining a minimum of 40% marks in each theory paper and not less than 50% cumulatively in all the four papers for degree examinations and three papers in diploma examination. Obtaining of 50% marks in Practical examination shall be mandatory for passing the examination as a whole in the said degree/diploma examination as the case may be. Obtaining a minimum of 50% marks in 'Theory' as well as 'Practical' separately will be mandatory for passing examination as a whole. The examination for MS/MD will be held at the end of 3rd academic year.

3.2.3. Clinical / Practical and viva voce Examination

Clinical examination will be conducted to test the knowledge, skills, attitude and competence of the post graduate students for undertaking independent work as a specialist/Teacher, for which post graduate students will examine a minimum one long case and two short cases.

The Oral examination will be thorough and will aim at assessing the post graduate student's knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the specialty, which form a part of the examination.

Assessment may include Objective Structured Clinical Examination (OSCE) Oral/Viva-voce examination needs to assess knowledge on X-rays, instrumentation, operative procedures. Due weightage should be given to Log Book Records and day to-day observation during the training.

ALLOTMENT OF MARKS

THEORY	MARKS ALLOTMENT	MAXIMUM MARKS	
PAPER-I	10 X 10	100	400
PAPER-II	10 X 10	100	
PAPER-III	10 X 10	100	
PAPER-IV	10 X 10	100	

CLINICALS/ PRACTICALS		200
VIVA VOCE	80	100
PEDAGOGY	20	
TOTAL		**700**

3.2 Examiners:

There will be at least four examiners in each subject. Out of them two will be external examiners and two will be internal examiners. The qualification and teaching experience for appointment as an examiner will be as laid down by the Medical Council of India. No person will be appointed as internal examiner in any subject unless he/she has three years' experience as recognized PG teacher in the concerned subject. For external examiners he/she should have minimum six years of experience as recognized PG teacher in the concerned subject.

3.2.4 Criteria for declaring as pass in Academy Examination:

A candidate should score minimum 40% marks in each theory paper and not less than 50% marks cumulatively in all the papers in postgraduate degree/diploma, to be declared as pass in the examinations. A candidate shall secure not less than 50% marks in each head of passing which shall include (1) Theory, (2) Practical including clinical and viva voce examination. A candidate securing less than 50% of marks as described above shall be declared to have failed in the examination. (No. MCI-23(1)/2014/Med/153433 Dated 28-01-2015) A failed candidate may appear in any sub-sequent examination upon payment of fresh fee to the Registrar of the University.

3.2.5* Declaration of distinction*:

A successful candidate passing the Academy examination in first attempt will be declared to have passed the examination with distinction, if the grand total aggregate marks are 75 percent and above. Distinction will not be awarded for candidates passing the examination in more thanone attempt.

3.2.6 Number of Candidates per day.

The maximum number of candidates for practical/clinical and viva-voce examination will be as under: MD / MS Programme: Maximum of 8 per day

4. ELIGIBILITY CRITERIA FOR APPEARING FOR EXAMINATIONS 4.1 ATTENDANCE

All the candidates joining the Post Graduate training programme will work as 'Full Time Residents' during the period of training and will attend not less than 80% (Eighty percent) of the imparted training during Academic Term of 6 months including assignments, full time responsibilities and participation in all facets of the education process.

- Every student will attend all teaching programmes during each year as prescribed by the department and not absent himself / herself from work without valid reasons
- Every candidate is required to attend a minimum of 80% of the training during each academic year of the post graduate programme. Provided further, leave of any kind will not be counted as part of academic term without prejudice to minimum 80% attendance of training period every term.
- Any student who fails to complete the programme in the manner stated above will not be permitted to appear for the Academy Examinations.

4.2. PROGRESS AND CONDUCT

- Every student will attend symposia, seminars, conferences, journal review meetings, grand rounds, CPC, case presentation, clinics and lectures during each term as prescribed by the department and not absent himself / herself from work without valid reasons.
- Every candidate is required to attend a minimum of 80% of the training during each academic term of the post graduate programme. Provided further, leave of any kind will not be counted as part of academic term without prejudice to minimum 80% attendance of training period every term.

4.3. RESEARCH ACTIVITIES-PAPER/POSTER/PUBLICATIONS

- A Postgraduate student of a degree programme in broad speciality would be required to present one poster presentation, to read one paper at a national/state conference and to present one research paper which should be published / accepted for publication/sent for publication during the period of postgraduate studies so as to make him eligible to appear at the postgraduate degree examination. Ref: As MCI Notification dated 09-12-2009, vide No.MCI.18 (1)/2009-Med.55455 and Para No.4.
- It is mandatory for all postgraduate students to undergo training in online programme in "Basic Programme in Biomedical Research" Which should be completed by the end of second semester .Not completing the programme will make them ineligible for appearing for the final academy examinations.(MCI-23(1)/2019-Med./141602 dated 27-08-2019).

4.4 DISSERTATION

Every post graduate student will carry out work on an assigned research project under the guidance of a recognised Post Graduate Teacher, the result of which will

be written and submitted in the form of a dissertation. Dissertation will be submitted at least six months before the Theory and Clinical / Practical examination. The dissertation will be examined by a minimum of three examiners; one internal and two external examiners, who will not be the examiners for Theory and Clinical examination. A candidate will be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the dissertation by the examiners.

4.5 District Residency Programme

All postgraduates students pursuing MD/MS in broad specialties shall undergo a compulsory residential rotation of three months in District Hospital / District Health system as a part of the course curriculum. Such rotation shall take place in the 3rd or 4th or 5th semester of the postgraduates programme. This rotation shall be termed as District residency programme and the postgraduate medical student undergoing training shall be termed as a District Resident.

Satisfactory completion of the District Residency shall be an essential condition before the candidate is allowed to appear in the final examination of the respective postgraduate course. The District Residency Programme Coordinator (DRPC) shall issue certificate of satisfactory completion of DRP and report on the performance of the District Resident on a prescribed format to the concerned Medical College and the Government of State/Union Territory. No. MCI-18(1)/2020-Med./121415.—date 16/09/2020

Procedure for defaulters:

Every department should have a committee containing Head of the department and PG guides to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the, requirements in spite of being given adequate chances to set himself or herself right.

CHAPTER II

GOALS AND GENERAL OBJECTIVES OF POSTGRADUATE MEDICAL EDUCATION PROGRAM

GOALS:

The goal of postgraduate medical education will be to produce a competent specialist and /or a medical teacher:

i. Who will recognize the health needs of the community, and carry out professional obligations ethically and in keeping with the objectives of the national health policy;
ii. Who will have mastered most of the competencies, relating to the specialty, that are required to be practiced at the secondary and the tertiary levels of the health care delivery system:
iii. Who will be aware of the contemporary advances and developments in the discipline concerned;
iv. Who will have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology; and
v. Who will have acquired the basic skills in teaching of the medical and paramedical professionals.

GENERAL OBJECTIVES:

At the end of the postgraduate training in the discipline concerned the student will be able to:

i. Recognize the importance of the concerned specialty in the context of the health need of the community and the national priorities in the health sector.
ii. Practice the specialty concerned ethically and in step with the principles of primary health care.
iii. Demonstrate sufficient understanding of the basic sciences relevant to the concerned specialty.
iv. Identify social, economic, environmental, biological and emotional determinants of health in a given case, and lake them into account while planning therapeutic, rehabilitative, preventive and promotive measures/strategies.
v. Diagnose and manage majority of the conditions in the specialty concerned on the basis of clinical assessment, and appropriately selected and conducted investigations.
vi. Plan and advice measures for the prevention and rehabilitation of patients suffering from disease and disability related to the specialty.
vii. Demonstrate skills in documentation of individual case details as well as morbidity and mortality data relevant to the assigned situation,
viii. Demonstrate empathy and humane approach towards patients and their families and exhibit interpersonal behavior in accordance with the societal norms and expectations.
ix. Play the assigned role in the implementation of national health programmes, effectively and responsibly.

x. Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in the clinic/hospital or the field situation.
xi. Develop skills as a self-directed learner, recognize continuing educational needs; select and use appropriate learning resources.
xii. Demonstrate competence in basic concepts of research methodology and epidemiology, and be able to critically analyse relevant published research literature.
xiii. Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing students, general physicians and paramedical health workers.
xiv. Function as an effective leader of a health team engaged in health care, research or training.

STATEMENT OF THE COMPETENCIES

Keeping in view the general objectives of postgraduate training, each disciplines will aim at development of specific competencies, which will be defined and spelt out in clear terms. Each department will produce a statement and bring it to the notice of the trainees in the beginning of the programme so that he or she can direct the efforts towards the attainment of these competencies.

COMPONENTS OF THE PG CURRICULUM

The major components of the PG curriculum will be:

- Theoretical knowledge
- Practical/clinical Skills
- Training in Thesis.
- Attitudes, including communication.
- Training in research methodology.

Source: Medical Council of India, Regulations on Postgraduate Medical Education, 2006 and 2008.

COMPETENCY BASED POSTGRADUATE TRAINING PROGRAMME FOR M.D. PEDIATRICS

1. Goals

The goals of postgraduate training in Paediatrics would be to train a basic medical graduate (MBBS):

- To practice as a Child Health specialist equipped with appropriate knowledge and skills necessary to care for the normal and sick child.
- To practice Child Health in the community (urban or rural) and to perform professionally at all levels of the existing health care system.
- To practice with empathy and the highest ethical standards of the profession.
- To continue to strive for excellence by continuing medical education throughout his or her professional career.
- To teach by sharing knowledge and skills with colleagues
- To research and find solutions to challenges in health care.

2. Learning Outcomes:

The objectives of MD Course in Paediatrics are to produce a competent pediatrician who:

2.1 Recognizes the health needs of infants, children and adolescents and carries out professional obligations in keeping with principles of the National Health Policy and professional ethics

2.2 Has acquired the competencies pertaining to Paediatrics that are required to be practiced in the community and at all levels of health system

2.3 Has acquired skills in effectively communicating with the child, family and the community

2.4 Is aware of contemporary advances and developments in medical sciences as related to child health

2.5 Is oriented to principles of research methodology

2.6 Has acquired skills in educating medical and paramedical professionals

2.7 Is able to recognize mental conditions and collaborate with Psychiatrists/Child Psychologists for the treatment of such patients

3. SUBJECT SPECIFIC COMPETENCIES

3.1 **Cognitive domain** At the end of the MD course in Paediatrics, the students should be able to

1. Recognize the key importance of child health in the context of the health priority of country

2. Practice the specialty of Paediatrics in keeping with the principles of professional ethics
3. Identify social, economic, environmental, biological and emotional determinants of child and adolescent health, and institute diagnostic, therapeutic, rehabilitative, preventive and promotive measures to provide holistic care to children
4. Recognize the importance of growth and development as the foundation of Paediatrics and help each child realize her/his optimal potential in this regard
5. Take detailed history; perform full physical examination including neuro development and behavioral assessment and anthropometric measurements in the child and make clinical diagnosis
6. Perform relevant investigative and therapeutic procedures for the paediatric patient
7. Interpret important imaging and laboratory results
8. Diagnose illness based on the analysis of history, physical examination investigations
9. Plan and deliver comprehensive treatment for illness using principles of rational drug therapy
10. Plan and advice measures for the prevention of childhood disease and disability
11. Plan rehabilitation of children with chronic illness and handicap and those with special needs
12. Manage childhood emergencies efficiently
13. Provide comprehensive care to normal, 'at risk' and sick neonates
14. Demonstrate skills in documentation of case details, and of morbidity and mortality data relevant to the assigned situation
15. Recognize the emotional and behavioral characteristics of children, and keep these fundamental attributes in focus while dealing with them
16. Demonstrate empathy and humane approach towards patients and their families and keep their sensibilities in high esteem
17. Demonstrate communication skills of a high order in explaining management and prognosis, providing counseling and giving health education messages to patients, families and communities
18. Develop skills as a self-directed learner. Recognize continuing educational needs; use appropriate learning resources and critically analyze published literature in order to practice evidence-based Paediatrics
19. Demonstrate competence in basic concepts of research methodology and epidemiology
20. Facilitate learning of medical/nursing students, practicing physicians, paramedical health workers and other providers as a teacher-trainer

21. Implement National Health Programs, effectively and responsibly
22. Organize and supervise the desired managerial and leadership skills
23. Function as a productive member of a team engaged in health care, research and education.
24. Recognize mental conditions, characterized by self-absorption, reduced ability to respond, abnormal functioning in social interaction with or without repetitive behavior, poor communication (autism) and collaborate with Psychiatrists/Child Psychologists for the treatment of such patients.

3.2 Affective Domain:

1. Should be able to function as a part of a team, develop an attitude of cooperation with colleagues, and interact with the patient and the clinician or other colleagues to provide the best possible diagnosis or opinion.
2. Always adopt ethical principles and maintain proper etiquette in dealings with patients, relatives and other health personnel and to respect the rights of the patient including the right to information and second opinion.
3. Develop communication skills to word reports and professional opinion as well as to interact with patients, relatives, peers and paramedical staff, and for effective teaching.

3.3 Psychomotor domain:

At the end of the course, the student should have acquired following skills:

3.3.1.1 History and Examination

The student must gain proficiency in eliciting, processing and systemically presenting Paediatrics history and examination with due emphasis of the important and minimization of less important facts.

The following skills must be achieved:

1. Recognition and demonstration of physical findings
2. Recording of height, weight, head circumference and mid arm circumference and interpretation of these parameters using growth reference standard assessment of nutritional status and growth
3. Assessment of pubertal growth
4. Complete development assessment by history and physical examination, and recognizing developmental disabilities, including autism
5. Systematic examination

6. Neonatal examination including gestation assessment by physical neurological criteria
7. Examination of the fundus and the ear-drum
8. Skills related to IMNCI and IYCF

3.3.2 Monitoring Skills

Non-invasive monitoring of blood pressure, pulse and respiratory rates, saturation; ECG

3.3.3 Investigative Procedures:

i. Venous, capillary and arterial blood sampling using appropriate precautions
ii. Pleural, peritoneal, pericardial aspiration; subdural, ventricular and lumbar puncture
iii. Tuberculin test
iv. Biopsy of liver and kidney
v. Urethral catheterization and suprapubic tap
vi. Gastric content aspiration IV.

3.3.4 Therapeutic Skills:

i) Breast feeding assessment and counseling; management of common problems
ii) Establishment of central and peripheral vascular access; CVP monitoring
iii) Administration of injections using safe injection practices
iv) Determination of volume and composition of intravenous fluids and heir administration
v) Neonatal and Pediatric basic and advanced life support
vi) Oxygen administration, CPAP and nebulization therapy
vii) Blood and blood component therapy
viii) Intraosseous fluid administration
ix) Phototherapy, umbilical artery and venous catheterization and exchange transfusion
x) Nasogastric feeding
xi) Common dressings and abscess drainage; intercostal tube insertion
xii) Basic principles of rehabilitation
xiii) Peritoneal dialysis
xiv) Mechanical ventilation

3.3.5 Bed side investigations, including

i) Complete blood counts, micro ESR, peripheral smear
ii) Urinalysis
iii) Stool microscopy and hanging drop
iv) Examination of CSF and other body fluids
v) Blood sugar
vi) Shake test on gastric aspirate
vii) Gram stain, ZN stain

3.4 Patient Management Skills:

i) Proficiency in management of paediatric emergencies, including emergency triaging
ii) Drawing and executing patient management plan and long term care
iii) Documenting patient records on day to day basis and problem oriented medical record
iv) Care of a normal and sick newborn, management of neonatal disorders hypothermia, sepsis, convulsions, jaundice, metabolic problems
v) Identifying need for timely referral to appropriate departments/health facility and pre-transport stabilization of the sick child

3.5 Communication Skills; Ethics, Attitudes; Professionalism:

i) Communicating with parents/child about nature of illness and management plan prognostication, breaking bad news
ii) Counseling parents on breast feeding, nutrition, immunization, disease prevention, promoting healthy life style
iii) Genetic counseling
iv) Communication and relationship with colleagues, nurses and paramedical workers
v) Appropriate relation with pharmaceutical industry
vi) Health economics
vii) Professional and research ethics

3.6 Interpretation of Investigations:

i. Plan x-ray chest, abdomen, skeletal system
ii. Contrast radiological studies: Barium swallow, barium meal, barium enema, MCU
iii. Ultrasound skull and abdomen
iv. Histopathological, biochemical and microbiological investigations

v. CT Scan and MRI (skull, abdomen, chest)
vi. Electrocardiogram, electroencephalogram
vii. Arterial and venous blood gases
viii. Desirable: Interpretation of radio-isotope studies, audiogram, neurophysiological studies, (BERA, VER, Electromyography [EMG], Nerve Conduction Velocity [NCV]), lung function tests

3.7 Academic Skills

i. Familiarity with basic research methodology, basic IT skills. Planning the protocol of the thesis, its execution and final report
ii. Review of literature
iii. Conducting clinical sessions for undergraduates medical students

Desirable: Teaching sessions for nurses and medical workers

4. Syllabus

Course contents:

Guidelines

During the training period, effort must be made that adequate time is spent in discussing child health problems of public health importance in the particular region.

4.1 Basic Sciences:

- Principles of inheritance, chromosomal disorders, single gene disorders, multifactorial / polygenic disorders, genetic diagnosis and prenatal diagnosis, pedigree drawing.
- Embryogenesis of different organ systems especially heart, genitourinary system, gastro-intestinal tract. Applied anatomy and functions of different organ systems.
- Physiology of micturition and defecation; placental physiology; fetal and neonatal circulation; regulation of temperature, blood pressure, acid base balance, fluid electrolyte balance and calcium metabolism.
- Vitamins and their functions.
- Hematopoiesis, hemostasis, bilirubin metabolism.
- Growth and development at different ages, growth charts; puberty and its regulation.
- Nutrition: requirements and sources of various nutrients.
- Pharmacokinetics of common drugs, microbial agents and their epidemiology.
- Basic immunology, biostatistics, clinical epidemiology, ethical and medico-legal issues.

- Teaching methodology and managerial skills.

4.2 Understanding the definition, epidemiology, aetiopathogenesis, presentation, complications, differential diagnosis and treatment of the following, but not limited to:

4.2.1 Growth and development

- Normal growth and development
- Principles of growth and development
- Failure to thrive and short stature
- Sexual maturation and its disturbances
- Autism (as mentioned in objective 3.1.24)

4.2.2 Neonatology

- Perinatal care
- Care in the labor room and resuscitation
- Prematurity
- Low birth weight
- Newborn feeding
- Respiratory distress
- Apnea
- Common transient phenomena
- Anemia and bleeding disorders
- Infections
- Gastrointestinal disorders
- Jaundice
- Malformations
- Neurologic disorders
- Renal disorders
- Thermoregulation and its disorders
- Understanding of perinatal medicine

4.2.3 Nutrition

- Maternal nutritional disorders; impact on fetal outcome
- Breast feeding
- Nutrition for the low birth weight
- Vitamin and mineral deficiencies
- Infant feeding including complementary feeding
- Protein energy malnutrition
- Obesity

- Parenteral and enteral nutrition
- Adolescent nutrition
- Nutritional management of systemic illness (GI, hepatic, renal illness)

4.2.4 Cardiovascular

- Congenital heart diseases (cyanotic and acyanotic)
- Rheumatic fever and rheumatic heart disease
- Arrhythmia
- Infective endocarditis
- Diseases of pericardium
- Diseases of myocardium (cardiomyopathy, myocarditis)
- Systemic hypertension
- Hyperlipidemia in children

4.2.5 Respiratory

- Congenital and acquired disorders of nose tonsils and adenoids
- Congenital anomalies of lower respiratory tract
- Foreign body in larynx, trachea and bronchus
- Acute upper airway obstruction
- Obstructive sleep apnea
- Trauma to larynx
- Subglottic stenosis (acute, chronic)
- Infections of upper respiratory tract
- Pneumonia, Bronchiolitis
- Recurrent& Interstitial pneumonia
- Bronchial asthma
- Aspiration pneumonia, GER
- Suppurative lung disease
- Lung cysts, mediastinal mass
- Atelectasis
- Pleural effusion
- Neoplasms of larynx and trachea

4.2.6 Gastrointestinal and liver disease

- Disease of oral cavity
- Disorders of deglutition and esophagus
- Congenital pyloric stenosis
- Peptic ulcer disease
- Acute and chronic pancreatic disorders
- Intestinal obstruction

- Acute, chronic and persistent diarrhea
- Malabsorption syndrome
- Inflammatory bowel disease
- Irritable bowel syndrome
- Anorectal malformations
- Hirschsprung disease
- Hepatic failure
- Hepatitis
- Budd-Chiari syndrome
- Chronic liver disease
- Cirrhosis and portal hypertension
- Metabolic diseases of liver

4.2.7 Nephrologic and Urologic disorders

- Acute and chronic glomerulonephritis
- Nephrotic syndrome
- Urinary tract infection
- Hemolytic uremic syndrome
- Involvement in systemic diseases
- VUR and renal scarring
- Neurogenic bladder, voiding dysfunction
- Renal tubular disorders
- Renal and bladder stones
- Congenital and hereditary renal disorders
- Hydronephrosis
- Posterior urethral valves
- Undescended testis, hernia, hydrocoele
- Wilms tumor

4.2.8 Neurologic disorders

- Malformations
- Seizure and non-seizure paroxysmal events
- Epilepsy, epileptic syndromes
- Meningitis, encephalitis
- Brain abscess
- Febrile encephalopathies
- Acute flaccid paralysis and AFP surveillance
- Guillain-Barre syndrome
- HIV encephalopathy
- Neurocysticercosis and other neuroinfestations

- Cerebral palsy
- SSPE
- Neurodegenerative disorders
- Neurometabolic disorders
- Mental retardation
- Neuromuscular disorders
- Muscular dystrophies
- Learning disabilities
- Movement disorders
- Tumors

4.2.9 Hematology and Oncology

- Deficiency anemias
- Hemolytic anemias
- Aplastic anemia
- Thrombocytopenia
- Pancytopenia
- Disorders of hemostasis
- Blood component therapy
- Transfusion related infections
- Acute and chronic leukemia
- Lymphoma
- Myelodysplastic syndrome
- Bone marrow transplant/stem cell transplant
- Hypercoagulable states
- Neuroblastoma

4.2.10 Endocrinology

- Hypopituitarism/hyperpituitarism
- Diabetes insipidus
- Pubertal disorders
- Hypo – and hyper-thyroidism
- Diabetes mellitus
- Cushing's syndrome
- Adrenal insufficiency
- Adrenogenital syndromes
- Short stature
- Hypoglycemia
- Obesity
- Gonadal dysfunction and intersexuality

4.2.11 Infections

- Viral (including HIV)
- Bacterial (including tuberculosis)
- Parasitic
- Fungal
- Mycoplasma
- Rickettssial
- Nosocomial infections
- Protozoal and parasitic
- Safe disposal of infective material
- Control of epidemics and infection prevention

4.2.12 Emergency and Critical Care

- Cardio-respiratory arrest
- Emergency care of shock
- Respiratory failure
- Acute renal failure
- Acute severe asthma
- Status epilepticus
- Acid-base disturbances
- Fluid and electrolyte disturbances
- Accidents
- Poisoning
- Scorpion and snake bites

4.2.13 Immunology and Rheumatology

- Arthritis (acute and chronic)
- Vasculitides
- Systemic lupus erythematosus
- Immunodeficiency syndromes

4.2.14 ENT

- Hearing loss
- Acute and chronic otitis media
- Acute/chronic tonsillitis/adenoids
- Post-diphtheritic palatal palsy
- Foreign body
- Allergic rhinitis/sinusitis

4.2.15 Skin Diseases

- Vascular lesions

- Exanthematous illnesses
- Vesicobullous disorders
- Pigment disorders
- Steven-Johnson syndrome
- Infections
- Drug rash
- Atopic, seborrheic dermatitis
- Icthyosis
- Alopecia

4.2.16 Eye problems

- Partial/total loss of vision
- Refraction and accommodation
- Night blindness
- Cataract
- Conjunctival and corneal disorders
- Strabismus
- Disorders of retina, including tumors

4.2.17 Behavioral and Developmental disorders

- Enuresis, encopresis
- Rumination, pica
- Habit disorders
- Sleep disorders
- Anxiety disorders
- Breath holding spells
- Temper tantrums
- Mood disorders
- Autism (as mentioned in objective 3.1.24)
- Attention deficit hyperactivity disorders

4.2.18 Social/Community Paediatrics

- IMNCI
- National health programs related to child health
- Vaccines: constituents, efficacy, storage, contraindications and adverse reactions
- Rationale and methodology of pulse polio immunization
- Adoption
- Child labor, abuse, neglect
- Rights of the child
- Disability and rehabilitation

- Juvenile delinquency
- National policy of child health and population
- Principles of prevention, control of infections (food, water, soil, vector borne)
- Investigation of an epidemic

4.2.19 Orthopedics

Bone and joint infections

Major congenital orthopedic deformities

Common bone tumors

5. Approach to clinical problems

5.1 Growth and development

- Developmental delay
- Precocious and delayed puberty
- Impaired learning

5.2 Neonatology

- Sick newborn
- Low birth weight newborn

5.3 Nutrition

- Lactation management and complementary feeding
- Protein energy malnutrition (underweight, wasting, stunting) and micronutrient deficiencies
- Failure to thrive

5.4 Cardiovascular

- Cyanosis
- Murmur
- Systemic hypertension
- Congestive heart failure
- Shock
- Arrhythmia

5.5 GIT and Liver

- Acute diarrhea
- Persistent and chronic diarrhea
- Abdominal pain and distension
- Constipation
- Vomiting
- Jaundice
- Ascites

- Hepatosplenomegaly
- Gastrointestinal bleeding
- Hepatic failure and encephalopathy

5.6 Respiratory

- Cough/chronic cough
- Hemoptysis
- Respiratory distress
- Wheezy child

5.7 Infections

- Acute onset pyrexia
- Prolonged pyrexia with and without localizing signs
- Recurrent infections
- Fever with xanthema
- Nosocomial infections

5.8 Renal

- Hematuria/dysuria bladder/bowel incontinence
- Renal failure (acute and chronic)
- Voiding dysfunctions
- Hypertension

5.9 Hematology and Oncology

- Anemia
- Bleeding

5.10 Neurology

- Convulsions
- Limping child
- Cerebral palsy
- Paraplegia, quadriplegia
- Floppy infant
- Macrocephaly and microcephaly
- Headache
- Acute flaccid paralysis

5.11 Endocrine

- Ambiguous genitalia
- Thyroid swelling
- Short stature
- Obesity

5.12 Miscellaneous

- Lymphadenopathy
- Skin rash
- Proptosis
- Epistaxis
- Arthralgia, arthritis

6. Teaching & Learning Methods:

6.1 General Principles:

Acquisition of practical competencies being the keystone of PG medical education, PG training should be skills oriented. Learning in PG program should be essentially self-directed and primarily emanating from clinical and academic work. The formal sessions are merely meant to supplement this core effect.

The teaching and training of postgraduate for degree shall be residency pattern with graded responsibilities in the management and treatment of patients entrusted to his/her care. The participation of the students in all facets of educational process is essential. Every candidate should take part in seminars, group discussions, grand rounds, case demonstration, clinics, journal review meetings, CPC and clinical meetings. Every candidate should be required to participate in the teaching and training programme of undergraduate students. Training should include involvement in laboratory and experimental work, and research studies. Students working in Paediatrics shall be posted to basic medical sciences and allied speciality departments or institutions.

6.2 Teaching Methodology:

This should include regular bedside case presentations and demonstrations, didactic lectures, seminars, journal clubs, clinical meetings, and combined conferences with allied departments. The post graduate student should be given the responsibility of managing and caring for patients in a gradual manner under supervision. Department should encourage e-learning activities.

6.3 Formal teaching sessions

In addition to bedside teaching rounds, at least 5-hr of formal teaching per week are necessary.

6.3.1 Didactic lectures
6.3.2 Seminars
6.3.3 Journal Club including Evidence Based Medicine (EBM)
6.3.4 Undergraduate teaching
6.3.5 Clinical case discussion
6.3.6 Mortality Review Meeting
6.3.7 Grand Rounds
6.3.8 Interdepartmental Seminars/ Symposia

6.3.9 Clinical Pathological Conference (CPC)

6.3.10 Records Round (Case sheet audit)

6.3.11 Attend accredited scientific meetings (CME, symposia, and conferences).

6.3.12 Additional sessions on resuscitation, basic sciences, biostatistics, research methodology, teaching methodology, hospital waste management, health economics, medical ethics and legal issues related to pediatric practice are suggested.

6.3.1 Didactic Lectures:

Objective: To introduce a broad-based concept in an important area of learning to orient the postgraduate student.

Examples: Potential introductory topics to Paediatrics like Fluid and Electrolytes, Early recognition of Shock and Respiratory Failure, DTTU management. Recent advances, Basic Science/ Concepts and ARI program.

Frequency: **Three times a week during the introductory phase of the first one, two months of the new postgraduates joining the course**. Following this period of orientation, it does not serve a purpose of self-directed learning and is best avoided as a regular activity except as an exceptional guest lecture.

6.3.2 Seminars:

Objective: To enable a student to study in depth an important area of learning important to the training of the student.

Examples: Examples of potential seminar topics would be Protein Energy Malnutrition, Pediatric Tuberculosis, Pediatric HIV, Bronchial Asthma, Chronic Liver Disease and its complications.

Frequency: Four times a month (Once a week). Topics to rotate once every 2,3 years .Topic to be shared, among 2,3 students and to be equally distributed depending upon the number of postgraduate students in the department.

6.3.3 Journal Club including Evidence Based Medicine (EBM):

Objective: To appreciate and enable the critical analysis of scientific literature published in peer reviewed journals, studies, reviews.

Examples: Articles like the study on prophylactic Zidovudine to HIV positive pregnant women in prevention of vertical transmission to the fetus. Digoxin versus Captopril in VSD in CCF, etc.

Frequency: Once a week. Juniors begin after their first year in the course.

6.3.4 Undergraduate Teaching Clinics

Objective: To teach effectively undergraduate and colleagues utilizing simple educational methods.

Methodology: During the second/third year of MD course, postgraduate students should be given opportunities to teach undergraduates.

Examples: Bedside Clinic, Skill workshop (e.g. NALS. PALS)

Frequency: During undergraduate postings in the department each postgraduate should have a minimum of 2 opportunities per year after the first year of the postgraduate course is completed.

6.3.5 Clinical case discussion

Objective: To learn bedside techniques, interview, physical examination, analysis, diagnostic decision making, investigation decisions, treatment and communication.

Examples: Child with hemiplegia, hepato-splenomegaly, anemia, jaundice etc.

Frequency: Twice a week – (Long case & Short Case) as it forms the basis of good clinical training activities.

6.3.6 Mortality Review Meeting

Objective: To analyze, discuss and learn from mortalities.

Frequency: Once in a month preferably in the first week to allow the previous months mortality to be presented for discussion.

6.3.7 Grand Rounds

Objective: To improve on bedside techniques, interview, physical examination, analysis, diagnostic decision making, investigation decisions, treatment, communication.

Examples: The child with pyrexia of unknown origin, undiagnosed hepato- splenomegaly, multisystem disease.

Frequency: Once in a week presuming the Head of Unit or Department does not daily interfere with the day to day management of the ward except in special circumstances.

6.3.8 Interdepartmental Seminars/ Symposia

Objective: To experience interdepartmental cooperation and develop a healthy professional respect for each other's opinions in addition to the subject learning experience.

Methodology: Case discussions or students present investigations to members of both faculty. The discussion is a learning experience and improves communications between departments.

Examples: Chest X-rays of a complicated bronchopneumonia progressing to an empyema, CT scans of intracranial pathology, Tracheo-esophageal fistulae and supportive care.

Frequency: Once or twice in a month and rotated between departments of Radiology, Pediatric Surgery, Cardiology, Nephrology, Neurology, Clinical Hematology, etc.

6.3.9 Clinical Pathological Conference (CPC)

Objective: To analyze clinical material to reach a differential diagnosis and correlate with the pathological biopsy findings.

Frequency: Once in two months. First choice is a senior MD student. All are encouraged to participate.

6.3.10 Records Round (Case sheet audit)

Objective: To appreciate the importance of documentation of facts and record keeping.

Methodology: Faculty in the presence of the team scrutinizes random case records. History sheets, doctor order sheets, progress sheets and discharge summaries are discussed.
Frequency: Once a week with the entire team present at the session.

6.3.11 Attend accredited scientific meetings (CME, symposia, and conferences).

6.3.12 Additional sessions on resuscitation, basic sciences, biostatistics, research methodology, teaching methodology, hospital waste management, health economics, medical ethics and legal issues related to pediatric practice are suggested.

6.4 Log book:

During the training period, the post graduate student should maintain a Log Book indicating the duration of the postings/work done in Pediatric Wards, OPDs and Casualty.This should indicate the procedures assisted and performed, and the teaching sessions attended.

The purpose of the Log Book is to:

a) Help maintain a record of the work done during training,
b) Enable Consultants to have direct information about the work; intervene if necessary,
c) Use it to assess the experience gained periodically.

The log book shall be used to aid the internal evaluation of the student.

The Log books shall be checked and assessed periodically by the faculty members imparting the training.

6.5 Thesis:

Every candidate pursuing degree course is required to carry out work on a selected research project under the guidance of a recognized post gradual teacher. The results of such a work shall be submitted in the form of a dissertation.

Every candidate shall submit to the Dean (Faculty of Medicine), SDUAHER, in the prescribed proforma, a synopsis containing particulars of proposed dissertation work six months from the date of commencement of the course on or before the dates notified by the University. The synopsis shall be sent through the proper channel.

Such synopsis will be reviewed and the dissertation topic will be registered by the University. No change in the dissertation topic or guide shall be made without prior approval of the University.

Objectives

By carrying out a research project and presenting his work in the form of thesis, the student shall be able to:

1. Identify a relevant research question
2. Conduct a critical review of literature
3. Formulate a hypothesis
4. Determine the most suitable study design
5. State the objectives of the study
6. Prepare a study protocol
7. Undertake a study according to the protocol
8. Analyze and interpret research data, and draw conclusions
9. Write a research paper

Guidelines:

- While selecting the topic, following should be kept in mind:
- The scope of study is limited to enable its conduct within the resources and time available
- The study must be ethically appropriate
- The emphasis should be on the process of research rather than the results
- The protocol, interim progress and final presentation is made formally to the department
- A teacher can guide a maximum of three students
- There should be periodic department review of the thesis work, as per following schedule:
    - ✓ End of 6 months: Submission of protocol
    - ✓ During 2nd year: Mid-term presentation
    - ✓ Six (6) months prior to examination: Final presentation; submission

The dissertation should be written under the following headings:

i. Introduction
ii. Aims or Objectives of study
iii. Review of Literature
iv. Material and Methods
v. Results
vi. Discussion
vii. Conclusion
viii. Summary
ix. References (Vancouver style)
x. Tables
xi. Annexures

The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexures. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.69") and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.

Four copies of dissertation thus prepared shall be submitted to the Dean (Faculty of Medicine), SDUAHER six months before final examination on or before the dates notified by the University. The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical examination. A candidate shall be allowed to appear for the Theory and Practical/Clinical examination

only after the acceptance of the Thesis by the examiners. Approval of dissertation work is an essential precondition for a candidate to appear in the University examination.

6.6 Rotation Postings

Core

Paediatrics	18 to 23 months
Neonatology/Perinatology	6 to 8 months
Intensive Care/Emergency	2 to 3 months

Optional Specialties (as External Postings subject to availability) – 3 months

Oncology - for 1 month (MD)
Neurology - for 1 month (MD)
Cardiology - for 1 month (MD)

Sub-specialties (Internal Postings) Dermatology; Physical Medicine & Rehabilitation (Physiotherapy); Radiology – 15 days each

Learning Objectives of PG rotational postings with Assessment Methods have been prepared and given to the candidates when they go for such postings. (See Appendix - I)

7. Attendance, Progress and Conduct:

1. A candidate pursuing degree course should work in the concerned department of the institution for the full period as a fulltime student. No candidate is permitted to run aclinic/laboratory/nursing home while studying postgraduate course.

2. Academic term of 6 months shall be taken as a unit for the purpose of calculating attendance.

3. Every student shall attend all teaching programmes during each year as prescribed by the department and not absent himself / herself from work without valid reasons.

4. All the candidates joining the Post Graduate training programme shall work as 'Full Time Residents' during the period of training and shall attend not less than 80% (Eighty percent) of the imparted training during Academic Term of 6 months including assignments, assessed full time responsibilities and participation in all facets of the education process.

5. Any student who fails to complete the course in the manner stated above shall not be permitted to appear for the University Examinations.

6. A Postgraduate student of a postgraduate degree course in broad specialities/super specialities would be required to present one poster presentation, to read one paper at a national/state conference and to present one research paper which should bepublished / accepted for publication/sent for publication during the period of postgraduate studies so as to make him eligible to appear at the postgraduate degree examination. Ref: As MCI Notification dated 09-12-2009, vide No.MCI.18(1)/2009- Med.55455 and Para No.4.

8. Monitoring Learning Progress (ASSESSMENT)

8.1 FORMATIVE ASSESSMENT i.e., assessment to improve learning.

It is essential to monitor the learning progress of each candidate through **continuous appraisal and regular assessment.** It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring to be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess, various aspects.

Model Checklists are given in Chapter-V.

Formative assessment shall be continual and shall assess core competency domains:

A. Medical Expert (Medical knowledge, patient care & procedural skills)
B. Communicator (Interpersonal skills)
C. Academic skills (Practice-based learning and Improvement)
D. Professionalism
E. Self-directed learning (Personal and Professional development) and
F. Ability to practice in the system (Systems-based practice).

Assessment during the MD training shall be based on:

i. Assessment at end of rotation (Quarterly Postgraduate Student's Appraisal Form) by the Unit Head.

The student to be assessed periodically as per categories listed in **Postgraduate Student Appraisal Form** (See Check list in Annexures).

ii. Multisource Feedback (MSF) – End of rotation

Residents shall have a minimum of 7 MSFs completed quarterly: 1 self-assessment; 2 from faculty of the unit; 2 from PGs posted in the unit; 2 from staff nurses from the areas attached to the unit. (See Check list in Annexures)

iii. Theory assessment – Long Essay Questions (Quarterly)

The Internal Assessment examinations in theory and practical/clinical shall be conducted quarterly**.**

Details of Quarterly Postgraduate Student's Appraisal Form (See Check list in Annexures)

1. **Journal based/ recent advances learning**

i. Journal Clubs (See Check list in Annexures)

ii. Evidence based medicine (EBM) based Journal clubs (See Check list in Annexures)

2. **Patient based/ Skill based learning**

i. Mini-CEX (mini clinical examination)– The residents should have a minimum of 1/week; not less than 45/year or 11/quarter (3 months) - (See Check list in Annexures)

- History taking – 10
- Physical examination – 10
- Clinical Reasoning – 5
- Communication – 5
- Systems based Practice – 5

From faculty – 80% of assessments

From Senior Residents – 20% of assessments

ii. Case based discussions – Long case discussion (Holistic) –& Short case discussion (Focused)- (See Check list in Annexures)

iii. DOPS (Directly Observed Procedural Skills) – The residents should have a minimum of 3 Compulsory procedure DOPS per week in any combination & 1 Optional Procedure DOPS in 3 months. (See Check list in Annexures)

Compulsory Procedures for DOPS:

- Bag/mask ventilation
- Peripheral venous cannulation
- Lumbar Puncture
- Tracheal intubation (newborns)
- Umbilical venous cannulation
- Urethral catheterization
- Administration of surfactant
- Peripheral arterial cannulation
- Intraosseous needle insertion
- Electrocardiogram (ECG)
- External cardiac massage

- Emergency needle thoracentesis
- Chest drain insertion
- Perform basic lung function tests
- Administer intradermal injections
- Administer subcutaneous injections
- Administer intramuscular injections
- Administer intravenous injections

Optional procedures for DOPS:

- Collection of blood from central lines
- Suprapubic aspiration of urine
- Umbilical artery cannulation
- Umbilical vessel sampling
- Percutaneous long-line insertion
- Intubation of preterm baby < 28 weeks gestation

3. Self-directed learning and teaching

i. Seminars (See Check list in Annexures)
ii. Neonatal advance life support (NALS) & Paediatric advance life support (PALS) training certificates
iii. Additional training certificates

4. Departmental & interdepartmental learning activity

i. Interdepartmental PG symposium
ii. Clinic-pathological conference (CPC)
iii. Clinical case discussion
iv. Pedagogy session (See Check list in Annexures)
v. Central mortality meeting (Once in 3 months)
vi. Monthly departmental mortality meeting (Once a month)
vii. Perinatal mortality meeting (Once a month)

5. External & Outreach activities/ Continuing Medical Education (CME)

i. External posting details: Sub-specialities Bangalore
ii. External postings details: SDUMC
iii. Camp details
iv. Annual Departmental CME
v. CMEs/Conferences/Workshops – External

6. Thesis/ Research work

Periodic presentations are to be made in the Department (See Check list in Annexures)

7. Log Book Maintenance

Log book (Tables 1, 2 & 3; Chapter V)

8. **Professionalism**
9. **Attendance**

PROCEDURE FOR DEFAULTERS:

Every department should have a committee to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default, the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the, requirements in spite of being given adequate chances to set himself or herself right.

8.2 Scheme of Examination

Summative Assessment (Assessment at the end of training)

The summative examination would be carried out as per the Rules given in POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000.
The postgraduate examination shall be in three parts:

a) Thesis:

Thesis shall be submitted at least six months before the Theory and Clinical / Practical examination. The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical examination. A post graduate student shall be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the Thesis by the examiners**.**

b) Theory examination

The examinations shall be organized on the basis of 'Marking system' to evaluate and to certify post graduate student's level of knowledge, skill and competence at the end of the training. Obtaining a minimum of 50% marks in 'Theory' as well as 'Practical' separately shall be mandatory for passing examination as a whole. The examination for M.D. / MS shall be held at the end of 3rd academic year. An academic term shall mean six month's training period.
There shall be four theory papers. Each paper should have 10 short essay questions (SEQ).

Paper I: Basic sciences as applied to Paediatrics
Paper II: Neonatology and Community Paediatrics
Paper III: General Paediatrics including advances in Paediatrics relating to Cluster I Specialties.
Paper IV: Paediatric Medicine including advances in Paediatrics relating to Cluster

II specialties.

Cluster I: Nutrition, Growth and Development, Immunization, Infectious disease, Genetics, Immunology, Rheumatology, Psychiatry and Behavioral Sciences, Skin, Eye, ENT, Adolescent Health, Critical Care, Accidents and Poisoning

Cluster II: Neurology and Disabilities, Nephrology, Hematology and Oncology, Endocrinology, Gastroenterology and Hematology, Respiratory and Cardiovascular disorders

c) Practical/clinical and Oral/Viva Voce examination

c) Clinical Examination 200 Marks.

	No. of Cases	**Marks**
Long case	1	100
Short Case	1	25
OPD case	1	25
Emergency case	1	25
Newborn	1	25
Total	5	200

d) Viva- voce: 100 marks

1) Viva-Voce Examination: (80 Marks)

All examiners will conduct viva-voce conjointly on candidate's comprehension, analytical approach, expression and interpretation of data. It includes all components of course contents. In addition, candidates may also be given case reports, charts, gross specimens, pathology slides, instruments, X, rays, ultrasound, CT scan images, for interpretation. It includes discussion on dissertation also.

2) Pedagogy Exercise: (20 Marks)

A topic to be given to each candidate in the beginning of clinical examination. He/she is asked to make a presentation on the topic for 8 to10 minutes.

Maximum marks for M.D. degree course	Theory	Practical	Viva	Grand Total
	400	200	100	700

Examiners: There shall be at least four examiners in each subject. Out of them two shall be external examiners and two shall be internal examiners. The qualification and teaching experience for appointment as an examiner shall be as laid down by the Medical Council of India.

No person shall be appointed as internal examiner in any subject unless he/she has three years' experience as recognized PG teacher in the concerned subject.

Criteria for declaring as pass in University Examination: Obtaining a minimum of 40% marks in each theory paper and not less than 50% cumulatively in all the four papers for degree examination and three papers in diploma examination. Obtaining of 50% marks in Practical examination shall be mandatory for passing the examination as a whole in the said degree/diploma examination as the case may be.

A candidate securing less than 50% of marks as described above shall be declared to have failed in the examination. Failed candidate may appear in any subsequent examination upon payment of fresh fee to the Registrar (Evaluation).

Declaration of Distinction: A successful candidate passing the University examination in first attempt will be declared to have passed the examination with distinction, if the grand total aggregate marks is 75 percent and above. Distinction will not be awarded for candidates passing the examination in more than one attempt.

Number of Candidates per day: The maximum number of candidates for practical/clinical and viva-voce examination shall be as under:

MD / MS Course: Maximum of 6 per day

RECOMMENDED BOOKS AND JOURNALS

Recent edition of the following books may be bought and used Essential Texts:

1. Nelson's Textbook of Paediatrics, Harcourt Asia Saunders
2. Cloherty's Manual of Neonatal Care
3. Meharban Singh's Care of the Newborn
4. The Harriet Lane Handbook
5. Nutrition and Child Development by Elizabeth KE
6. Manual of Pediatric Therapeutics, Little Brown's Children's Hospital. Boston.
7. O.P. Ghai's Textbook of Paediatrics
8. PG Textbook of Paediatrics by Piyush Gupta, PSN Menon, Siddarth Ramji
9. Clinical Methods in Paediatrics Textbook by Piyush Gupta
10. Medical Emergencies in Children by Meherban Singh
11. Manual of Pediatric Emergencies and Critical Care by Suchitra Ranjit

References

1. Rudolf's Paediatrics, Appleton and Lange
2. Forfar and Ameil's Textbook of Paediatrics, ELBS
3. Frank Oski's Principles and Practice of Paediatrics
4. Avery's Disease of the Newborn
5. Clinical Methods in Paediatrics by Kulkarni ML
6. Roberton's Textbook of Neonatology
7. Illingworth's the normal child
8. Guha's Textbook of Neonatology
9. IAP Textbook of Paediatrics
10. Nadas Pediatric Cardiology
11. Perloff's Approach to Congenital Heart Disease
12. Moss and Adam's Heart Disease in Infants, children and Adolescent
13. Miller's Blood Diseases of Infancy and Childhood
14. De Gruchy's Clinical Hematology in Medical Practice
15. Barret and Holiday's Pediatric Nephrology
16. Caffey's Pediatric X-Ray diagnosis
17. Alleyne's Protein Energy Malnutrition
18. Miller, Tuberculosis
19. Vimlesh Seth, Tuberculosis
20. Swanson's Pediatric Surgery
21. Cherry and Feigen's Pediatric Infectious Diseases
22. Fenichel's Pediatric Neurology
23. Kendig's Respiratory Diseases in Paediatrics
24. Alex Mowat's Liver Disease in Children
25. Roger's Pediatric Critical Care
26. H.P.S. Sachdev's Principles of Pediatric and Neonatology Emergencies
27. Smith's Recognition patterns of Human Malformations
28. Berman’s Pediatric Decision Making by Lalit Baja, Simon Hambidge

Indexed Journals

1. Indian Paediatrics
2. Indian Journal of Paediatrics
3. Pediatric Clinics of North America
4. New England Journal of Medicine
5. Lancet
6. British Medical Journal
7. Journal of Paediatrics
8. Archives Disease of Childhood and Adolescence

9. Paediatrics
10. Perinatal Clinics of North America
11. Indian Journal of Practical Paediatrics
12. Journal of Pediatric Critical Care

Reference Series

1. Suraj Gupta's Recent Advances in Paediatrics
2. David's Recent Advances in Paediatrics
3. Advances in Paediatrics
4. Year Book of Paediatrics

MODEL CHECK-LIST FOR EVALUATION OF JOURNAL REVIEW PRESENTATIONS

Name of the Student: **Name of the Faculty/Observer:**

Date:

SI. No.	**Items for observation during presentation**	**Poor 0**	**Below Average 1**	**Average 2**	**Good 3**	**Very Good 4**
1.	Article chosen was					
2.	Extent of understanding of scope &objectives of the paper by the candidate					
3.	Whether cross references have been consulted					
4.	Whether other relevant publications consulted					
5.	Ability to respond to questions on the paper / subject					
6.	Audio- Visual aids used					
7.	Ability to defend the paper					
8.	Clarity of presentation					
9.	Any other observation					
	Total Score :					

Mini-CEX Assessment Form

Date		Faculty Name					
Resident Name		Residency duration in months	06	12	18	24	36
Patient Problem							
Gender	M/F	Complexity	Low/Med/High				
Setting	Ward/OPD/NICU/PICU						
Competency Domain							
Competency Assessed							

Sl. No.	**Skill Assessed**	**Below expected performance**			**Borderline performance**		**Expected performance**		**Above expected performance**		**Not Observed**
Score		1	2	3	4	5	6	7	8	9	
1.	Medical interviewing skills										
2.	Physical examination skills										
3.	Professionalism/humanistic skills										
4.	Counselling skills										
5.	Clinical judgement										
6.	Organization/efficiency										
7.	Overall clinical competence										

Time spent in Observing -_____minutes**.** **Time spent for Feedback** - _____minutes

Number of previous assessments of this type observed for this resident- 0 /1-4 /5- 9 / >10

How did the resident perform with respect to the milestone of the competency assessed?

Unsafe	**Requires supervision**	**Can perform independently**	**Can teach**

Please provide comments on the resident's performance –

Please record areas of strength:	Please record suggestions for development:
Agreed Action:	

_____

_____

Resident Signature **Faculty Signature**

EVALUATION FORM FOR CLINICAL PRESENTATION

Name of the Student: Name of the Faculty: Date:

SI. No.	Points to be considered	Poor 0	Below Average 1	Average 2	Above Average 3	Very Good 4
1.	Completeness of history					
2.	Whether all relevant ' points elicited					
3.	Clarity of Presentation					
4.	Logical order					
5.	Mentioned all positive and negative points of importance					
6.	Accuracy of general physical examination					
7.	Whether all physical signs elicited correctly					
8.	Whether any major signs missed or misinterpreted					
9.	Diagnosis: Whether it follows logically from history and findings					
10	Investigations required • Complete list				-	
	• Relevant order					
	• Interpretation of investigations					
11.	Ability to react to questioning Whether it follows logically from history and findings					

12.	Ability to defend diagnosis					
13.	Ability to justify differential diagnosis					
14.	Others					
	Grand Total :-					

Directly Observed Procedural Skill (DOPS) Assessment Form

Resident Name					
Residency duration in months	06	12	18	24	36
Faculty Name					
Date					
Procedure					

Domain	**Satisfactory**	**Needs Improvement**	**Comments**
Professional approach (communication and consideration of patient)			
Consent skills			
Knowledge (indication, anatomy, technique)			
Demonstrates appropriate preparation pre-procedure			
Appropriate anaesthesia/sedation			
Technical Ability			
Aseptic technique			
Post-procedure management			

Time taken for observation -_____minutes. Time taken for Feedback-_____minutes

Overall ability to perform the procedure as per the milestone	Competent to perform unsupervised	May need supervision if complications arise	Needs more practice

Please provide comments on the resident's performance –

Please record areas of strength:	Please record suggestions for development:
Agreed Action:	

_____

_____

Resident Signature Faculty Signature

MODEL CHECK-LIST FOR EVALUATION OF SEMINAR PRESENTATIONS

Name of the Student: Name of the Faculty/Observer: Date:

SI. No.	**Items for observation during presentation**	**Poor 0**	**Below Average 1**	**Average 2**	**Good 3**	**Very Good 4**
1.	Whether other relevant publications consulted					
2.	Whether cross references have been consulted					
3,	Completeness of Preparation					
4.	Clarity of Presentation					
5,	Understanding of subject					
6.	Ability to answer questions					

7.	Time scheduling					
8.	Appropriate use of Audio-Visual Aids					
9.	Overall Performance					
10.	Any other observation					
	Total Score:					

PEDAGOGY STUDENT OBSERVATION SHEET

Rating scale: A- well done: B- done fairly: C- needs to improve: D not applicable

DIRECTIONS: Please enter ratings as A, B, C or D in the boxes

Name of teacher:	**Title:**
9. _____	**9.** _____
10. _____	**10.** _____
11. _____	**11.** _____
12. _____	**12.** _____
13. _____	**13.** _____
14. _____	**14.** _____
15. _____	**15.** _____
16. _____	**16.** _____

Sl No	**Skill**	**Teacher's action**	**Teachers performance**								
			1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1	Set induction	1.3 Aroused interest in the beginning by relation to previous learning, throwing a new idea, questioning, etc. 1.4 Specified the objectives of presentation									
2	Planning	2.1 Organized material in a logical sequence 2.2 Used relevant content matter									
3	Presentation	3.1 Changed the pace of presentation by shifting emphasis, joke, etc 3.2 Used specific example to illustrate main ideas 3.3 Used non-verbal cues, eye contact, etc									

4	Pupil participation	4.1 Allowed questions from students 4.2 Asked questions 4.3 Solicited/ raised questions 4.4 Rewarded pupil effort									
5	Use of AV aids	5.1 Used proper AV aids 5.2 Used the aid (s) effectively									
6	Closure `	6.1 Summarized most important points at the end of the lesson									
7	Lesson of the whole was effective										

For additional comments use the reverse side

Remarks:

Teacher 1:
Teacher 2:
Teacher 3:
Teacher 4:
Teacher 5:
Teacher 6:
Teacher 7:
Teacher 8:
Teacher 9:

MODEL CHECK LIST FOR DISSERTATIONPRESENTATION

Guidelines are submission of half yearly Progress report by MD Students.

(These are headings only; student has to submit a detailed writing on the headings below)

Name of the Student: **Department:**

Dissertation review conducted on:

Sl No	Guidelines	Comments
1	**Progress in the review of literature -** Include literature published since you started your dissertation work. References to be in the Vancouver style.	
2	**Research Methodology**– Explain the methods employed/standardization/ progress made/ new techniques developed for the present work.	
3	**New Data** – Results obtained during the study	
4	**Discussion** – On the findings of the study done so far	
5	**Conclusions** – On the findings obtained so far	
6	**Comments by the guide** – Any changes suggested	
7	**Status of Progress** – Satisfactory/Not Satisfactory	

Signature of Candidate **Signature of Guide** **Signature of HoD**

LOG BOOK

Table 1: Academic activities <u>attended</u>

Name: Admission Year:

College:

Date	**Type of Activity** Specify: Seminar, Journal Club, **Case Presentation, UG teaching**	**Particulars**

LOG BOOK

Table 2: Academic <u>presentations</u> made by the student Name: Admission Year: College:		
Date	**Topic**	**Type of Presentation** Specify: Seminar, Journal Club, Case Presentation, UG teaching, etc.

LOG BOOK

Table 3:

Diagnostic and Operative procedures performed

Name: Admission Year:

Date	**Name**	**IP No.**	**Procedure**	**Category O, A, PA, PI***

*Key: O - Observed
A - Assisted
PA - Performed procedure under the direct supervision PI
- Performed independently

Model Overall Assessment Sheet Name of the College: Academic Year:											
SI. No	**Faculty Member &Others**	**Name of Student and Mean Score**									
		A	**B**	**C**	**I**	**E**	**F**	**G**	**H**	**I**	**J**
1.											
2.											
3.											
4.											
5.											
Total Score											

Note: Use separate sheet for each year.

Appendix I
PG Rotational Posting

Neurology: NIMHANS, Bangalore – 4 weeks
Cardiology: Sri Jayadeva Institiue of Cardiovascular Sciences and Research, Bangalore– 4 weeks
Oncology: Kidwai Memorial Institute of Oncology, Bangalore– 4 weeks Physiotherapy:
SDUAHER, Kolar – 2 weeks
Dermatology: SDUMC, SDUAHER, Kolar – 2 weeks Radiology:
SDUMC, SDUAHER, Kolar – 2 weeks

Learning Objectives of PG Rotational Posting with Assessment Methods

Neurology

A) Objectives of Neurology sub-Specialty external rotation postings for Paediatric post graduate degree students for a duration for 4 weeks. Targets to achieve at the end of training period:

1. To take an accurate neurological and neuro development history.
2. To examine the nervous system of a newborn baby, child and young person.
3. To perform a reliable assessment of neuro-developmental status at key stages, including the newborn period, the first year of life, nursery age, school entry and late primary education.
4. To have the Knowledge and skills to be able to initiate management of children with neurological and neurodisabling conditions in acute settings and know when and whom to call for help.

5. To be able to recognize, initiate diagnostic tests and outline the management of common neurological disorders.
6. To understand the life-threatening nature of acute neurological deterioration and when to call for help
7. To understand the principles and use of neuro-radiological imaging- CT scan, MRI scan etc.
8. To understand and demonstrate skills of interpretation of neuro-physiological tests EEG, NCV, EMG etc.
9. To understand the principles and have skills of prescribing and monitoring therapy in neurological cases.
10. To understand the implications for families of children with neurological and neurodisabling conditions and to employ them during counselling.
11. To understand the need for a range of communication skills with disabled children, their families and other professionals and practice them.

Assessment-Department of Paediatrics encourages the Supervisors/Teaching faculty at the departments where posting is done to conduct a work place based assessment (WPBA) of our residents during and at the end of posting.

WPBA can be done by-

1. **Documentation Assessment of Residents**- Log –book, Clinical Encounter Cards **(CEC**) i.e. Patient case sheet.
2. **Direct Assessment of the Residents-** mini-Clinical Evaluation Exercise **(mini-CEX),** Direct Observation of Procedural Skills **(DOPS)**, Acute Care Assessment Tool **(ACAT),** Clinical Work Sampling **(CWS). OSCE**
3. **Discussion of individual Clinical cases with Residents**- Case Based Discussion **(CBD)**

Any of the above assessment methods as felt suitable by the supervising faculty can be used for the assessment.

Oncology

A) Objectives of Oncology sub-speciality external rotation postings for Paediatric post graduate degree students for a duration of 4 weeks. Targets to achieve at the end of training period:

1. To practice assessment and investigations of patients with cancer, including the history, physical examination, laboratory and imaging techniques.
2. To recognize principles of cancer therapy and the indications for and complications of the various treatment modalities alone or in combination.
3. To perform management of medical emergencies and complications which arise as a result of cancer or its treatment.

4. To employ the principles and practice of palliative symptomatic treatment of patients with cancer.
5. To demonstrate psychological and ethical aspects of treating patients with cancer and communicating with patients and their families and other members of the health care team.
6. To perform specific technical skills including aspiration of effusions, lumbar puncture, bone marrow aspiration and biopsy, maintenance of vascular access, examination techniques for specific systems (example pharyngo- laryngeal area) and their interpretation.

Assessment – Department of Paediatrics encourages the Supervisors/Teaching faculty at the departments where posting is done to conduct a work place based assessment (WPBA) of our residents during and at the end of posting

WPBA can be done by-

1. **Documentation assessment of residents**- Log-book, Clinical Encounter Cards (CEC) i.e. patient case sheet.
1. **Direct Assessment of the residents**-- mini-Clinical Evaluation Exercise (mini-CEX), Direct Observation of Procedural Skills (DOPS), Acute Care Assessment Tool (ACAT), Clinical Work Sampling (CWS).
2. **Discussion of individual clinical cases with residents –** Case based discussion (CBD).

Any of the above assessment methods as felt suitable by the supervising faculty can be used for the assessment.

Cardiology

C) Objectives of Cardiology sub-speciality external rotation postings for Paediatric post graduate degree students for a duration of 4 weeks. Targets to achieve at the end of training period:

1. To be able to assess, manage and coordinate care for Paediatric patients with congenital and acquired heart disease in the acute and chronic care settings.
2. To be able to read and analyze investigations such as electrocardiogram, 24-hour holter and treadmill.
3. To be able to perform echocardiograms and arrive at a working diagnosis with minimal supervision for common Paediatric cardiac disorders.
4. To read and analyse and discuss cardiac angiograms and hemodynamics.
5. To be able to explain explicitly to the parents and patients about the important findings, the conclusions and management plans of their ailments.

Assessment – Department of Paediatrics encourages the Supervisors/Teaching faculty at the departments where posting is done to conduct a work place based assessment (WPBA) of our residents during and at the end of posting.

WPBA can be done by-

1. Documentation assessment of residents- Log-book, Clinical Encounter Cards (CEC) i.e. patient case sheet.

2. Direct Assessment of the residents-- mini-Clinical Evaluation Exercise (mini-CEX), Direct Observation of Procedural Skills (DOPS), Acute Care Assessment Tool (ACAT), Clinical Work Sampling (CWS).

3. Discussion of individual clinical cases with residents – Case Based Discussion (CBD). Any of the above assessment methods as felt suitable by the supervising faculty can be used for the assessment.

Dermatology

D) Objectives of Dermatology sub-speciality internal rotation postings for Paediatric post graduate degree students for a duration of 2 weeks. Targets to achieve at the end of training period:

1. Take history for Paediatric dermatology disorders.
2. Describe cutaneous findings in dermatological terms in systematic way.
3. Evaluate and manage the common diseases in Paediatric dermatology and have a broad idea how to approach uncommon diseases.
4. Perform systemic examination relevant for dermatological conditions.
5. Manage dermatological emergencies like TEN, Pemphigus, angioedema, drug reactions etc.
6. Manage Paediatrics cases with skin diseases.
7. Evaluate and correlate systemic diseases with cutaneous manifestations.
8. Demonstrate adequate skills to perform tests done in side laboratory in day-to-day practice and be familiar with other sophisticated investigations.

Assessment – Department of Paediatrics encourages the Supervisors/Teaching faculty at the departments where posting is done to conduct a work place based assessment (WPBA) of our residents during and at the end of posting.

WPBA can be done by-

1. Documentation assessment of residents- Log-book, Clinical Encounter Cards (CEC) i.e. patient case sheet.

2. Direct Assessment of the residents-- mini-Clinical Evaluation Exercise (mini-CEX), Direct Observation of Procedural Skills (DOPS), Acute Care Assessment

Tool (ACAT), Clinical Work Sampling (CWS).

3. Discussion of individual clinical cases with residents – Case Based Discussion (CBD).

Any of the above assessment methods as felt suitable by the supervising faculty can be used for the assessment.

Radiology

E) Objectives of Radiology sub-speciality internal rotation postings for Paediatric post graduate degree students for a duration of 2 weeks. Targets to achieve at the end of training period:

1. To understand the appropriate indications for various imaging procedures and determine that the patient has been properly prepared for the procedure.
2. To know the standard radiographic views for Paediatric imaging evaluations.
3. To recognize and evaluate imaging manifestations (on conventional and newer methods) of common Paediatric conditions occurring in the head/neck, chest, abdomen/pelvis and in the Musculo-skeleton.
4. To understand and apply the knowledge and principle of radiation protection, both for the child and the operator.

Assessment – Department of Paediatrics encourages the Supervisors/Teaching faculty at the departments where posting is done to conduct a work place based assessment (WPBA) of our residents during and at the end of posting.

WPBA can be done by-

1. Documentation assessment of residents- Log-book, Clinical Encounter Cards (CEC) i.e. patient case sheet.

2. Direct Assessment of the residents-- mini-Clinical Evaluation Exercise (mini-CEX), Direct Observation of Procedural Skills (DOPS), Acute Care Assessment Tool (ACAT), Clinical Work Sampling (CWS).

3. Discussion of individual clinical cases with residents – Case Based Discussion (CBD).

Any of the above assessment methods as felt suitable by the supervising faculty can be used for the assessment.

Physical Medicine & Rehabilitation

F) Objectives of Physical Medicine & Rehabilitation sub-speciality internal rotation postings for Paediatric post graduate degree students for a duration of 2 weeks. Targets to achieve at the end of training period:

1. Identify growth and developmental milestones of normal neuromusculoskeletal and cognitive development and understand the impact of abnormal milestones on the functional outcome of a disabled child.
2. Develop the ability to collect history, perform relevant clinical assessment in children with the following disorders: Cerebral palsy, head injury, neural tube defects, muscular dystrophy, scoliosis, juvenile arthritis, congenital hip dislocation (and other congenital disorders), Legge Perthes disease, Juvenile amputees, slipped capital femoral epiphysis, club foot, arthrogryposis.
3. Understand the medical and surgical management of spasticity and pain and also the role of various medicines: e.g. bladder medications, antibiotics, anti- inflammatory, pressure sores, bowel management, anti-spasticity medications.
4. Develop the ability to frame appropriate electrotherapeutic and exercise therapy and explain the role of exercise in the treatment of a disabled child.
5. Ability to prescribe various adaptive devices for pediatric disability; e.g. prosthetics, orthotics, wheelchair, writing aids, learning aids, augmentative communication, driver education, learning devices, environmental modifications.

Assessment – Department of Paediatrics encourages the Supervisors /Teaching faculty at the departments where posting is done to conduct a work place based assessment (WPBA) of our residents during and at the end of posting.

WPBA can be done by-

1. Documentation assessment of residents- Log-book, Clinical Encounter Cards (CEC) i.e. patient case sheet.

2. Direct Assessment of the residents-- mini-Clinical Evaluation Exercise (mini-CEX), Direct Observation of Procedural Skills (DOPS), Acute Care Assessment Tool (ACAT), Clinical Work Sampling (CWS).

3. Discussion of individual clinical cases with residents – Case Based Discussion (CBD).

Any of the above assessment methods as felt suitable by the supervising faculty can be used for the assessment.

Appendix- 2

Department of Paediatrics, SDUMC, SDUAHER, Kolar

Quarterly Postgraduate Student's Appraisal Form

Name of the Unit:

……

Name of the PG Student:

……

Period of Training:

FROM……**TO**……

Sl No	Particulars	Not Satisfactory	Satisfactory	More Than Satisfactory	Attendance (Wherever applicable) %	Remarks
		1 2 3	4 5 6	7 8 9		
1	Journal based / recent advances learning					
2	Patient based/ Skill based learning					
3	Self- directed learning and teaching					
4	Departmental and Interdepartmental learning activity					
5	External and Outreach activities / CMEs					
6	Thesis / Research work					
7	Log Book Maintenance					
8	Professionalism					
9	Attendance					

Publications: Yes/ No

Remarks* _____

_____

_____

_____

_____

***REMARKS:** Any significant positive or negative attributes of a postgraduate student to be mentioned. For score less than 4 in any category, remediation must be suggested.

Individual feedback to postgraduate student:

_____

_____

_____

_____

_____

Signature of Resident	Signature of Unit Head	Signature of Guide	Signature of HoD

Appendix – 3

Department of Paediatrics, SDUMC, SDUAHER, Kolar

Paediatric Multi- Source Feedback (MSF) Form

Resident Name						
Residency duration at the time of assessment in months	**06**	**12**	**18**	**24**	**36**	
Assessor's Gender						
Which clinical environment have you primarily observed the resident in?	**Ward**	**OPD**	**S/NICU**	**PICU**		
Your Position	**Faculty**	**PG**	**Intern**	**Staff Nurse**		
Length of working relationship with the resident (in months)						
Rating	**1**	**2**	**3**	**4**	**5**	**NA**
Ability to diagnose patient problems						
Ability to formulate appropriate management						

plans						
Ability to manage complex patients						
Awareness of own limitations						
Ability to respond to psychosocial aspects of illness						
Appropriate utilization of resources eg. Ordering investigations						
Ability to assess risks and benefits when treating patients						
Ability to co-ordinate patient care						
Please describe any strengths/indicators of good practice in the area of "Medical Expertise" of this resident						
Please describe any behavior that has raised concerns or should be a particular focus for development in the area of "Medical Expertise" of this resident						
Technical skills (appropriate to current practice)						
Ability to apply up-to-date/ evidence- based medicine						
Ability to manage time effectively/prioritize						
Ability to deal with stress						
Please describe strengths/indicators of good practice in the area of "Personal development & Professionalism" of this resident						
Please describe any behavior that has raised concerns or should be a particular focus						

for development in the area of "Personal development & Professionalism" of this resident						
Commitment to learning						
Willingness and effectiveness when teaching/training colleagues						
Ability to give feedback (Private, honest and supportive)						
Please describe strengths/indicators of good practice in the area of "Teaching and Training, Appraising and Assessing" of this resident						
Please describe any behavior that has raised concerns or should be a particular focus for development in the area of practice in the area of "Teaching and Training, Appraising and Assessing" of this resident						
Communication with patients						
Communication with carers and/or family						
Respect for patients and their right to confidentiality						
Verbal communication with colleagues						
Written communication with colleagues						
Ability to recognize and value the contribution of others						
Accessibility						
Reliability						
Leadership skills						
Management skills						
Please describe						

strengths/indicators of good practice in the area of "Interpersonal & communication skills" of this resident						
Please describe any behavior that has raised concerns or should be a particular focus for development in the area of practice in the area of "Interpersonal &communication skills" of this resident						
Overall, how do you rate this resident compared to other residents at the same duration of residency?						
Do you have any concerns about this resident's probity?	Yes/No	If Yes, please specify here -				
Do you have any concerns about this resident's health in relation to their fitness to practice?	Yes/No	If Yes, please specify here -				
Please use this space for any other comments you have about this resident.