PRAVARA INSTITUTE OF MEDICAL SCIENCES
(DEEMED TO BE UNIVERSITY)
Loni, Tal. Rahata, Dist. Ahmednagar 413736
NAAC Re-accrediated with 'A' Grade

SYLLABUS
PG Programme- MD (ANATOMY)
(As per MCI Regulations Governing PG Programme 2000 Amended up to May, 2018)

I. PREAMBLE

The purpose of PG education is to create specialists who would provide high quality health care and advance the cause of science through research & training.

II. SUBJECT SPECIFIC LEARNING OBJECTIVES

The Goal of MD Anatomy is to train a doctor to become a competent teacher and researcher in Anatomy who:

1. Is aware of contemporary advances and developments in the field of Anatomy.
2. Has acquired the competencies pertaining to the subject of Anatomy that are required to be practiced at all levels of health system.
3. Is able to discharge responsibilities and participate in National Health Education Programme.
4. Is oriented to the principles of research methodology.
5. Has acquired skills in educating medical and paramedical professionals.
6. Has acquired skills in effectively communicating with the students and colleagues from various medical and paramedical fields.
7. Has acquired skills of integrating anatomy with other disciplines as and when needed.
8. Has acquired qualities of a good teacher capable of innovations in teaching methodology**.**
9. Has been able to demonstrate adequate management skills to function as an effective leader of the team engaged in teaching and research.

After completing the three year course in MD Anatomy the student should have achieved competence in the following:

1. Knowledge of Anatomy

1.1. Acquire competencies in gross and surface anatomy, neuroanatomy, embryology, genetics, histology, radiological anatomy, applied aspects and recent advances of the above mentioned branches of anatomy to clinical practice. These are given in detail in subsequent sections.

2. Practical and Procedural skills

2.1 Acquire mastery in dissection skills, embalming, tissue preparation, staining and museum preparation.

3. Training skill in Research Methodology

3.1 Acquire skills in teaching, research methodology, epidemiology & basic information technology.

3.2 Acquire knowledge in the basic aspects of Biostatistics and research methodology.

3.3 Has knowledge to plan the protocol of a thesis, carry out review of literature, execution of research project and preparation of report.

3.4 Has ability to use computer applications Microsoft office (Microsoft word, excel, power point), Internet, Searching scientific databases (e.g. PubMed, Medline, Cochrane reviews).

3.5 Acquire skills in paper & poster preparation, writing research papers and Thesis.

4. Professionalism, attitude and communication skills:

4.1 Develop honest work ethics and empathetic behavior with students and colleagues.

4.2 Acquire capacity of not letting his/her personal beliefs, prejudices, and limitations come in the way of duty.

4.3 Acquire attitude and communication skills to interact with colleagues, teachers and students.

5. Teaching Anatomy

5.1 Practicing different methods of teaching-learning.

5.2 Making presentations of the subject topics and research outputs.

6. Problem Solving

6.1 Demonstrate the ability to identify applied implications of the knowledge of anatomy and discuss information relevant to the problem, using consultation, texts, archival literature and electronic media.

6.2 Demonstrate the ability to correlate the clinical conditions to the anatomical/ embryological/hereditary factors.

6.3 Demonstrate the ability to evaluate scientific/clinical information and critically analyze conflicting data and hypothesis.

III. SUBJECT SPECIFIC COMPETENCIES

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

A. Cognitive domain

1. Describe gross anatomy of entire body including upper limb, lower limb, thorax, abdomen, pelvis, perineum, head and neck, brain and spinal cord.
2. Explain the normal disposition of gross structure, and their interrelationship in the human body. She/He should be able to analyze the integrated functions of organs systems and locate the site of gross lesions according to deficits encountered.

3. Describe the process of gametogenesis, fertilization, implantation and placenta formation in early human embryonic development along with its variation and applied anatomy.
4. Demonstrate knowledge about the sequential development of organs and systems along with its clinical anatomy, recognize critical stages of development and effects of common teratogens, genetic mutations and environmental hazards. She/He should be able to explain developmental basis of variations and congenital anomalies.
5. Explain the principles of light, transmission and scanning, compound, electron, fluorescent and virtual microscopy.
6. Describe the microscopic structure of various tissues & organs and correlate structure with functions as a prerequisite for understanding the altered state in various disease processes.
7. Demonstrate knowledge aboutcell andits components, cell cycle, cellular differentiation and proliferation.
8. Describe structure, number, classification, abnormalities and syndromes related to human chromosomes.
9. Describe important procedures in cytogenetic and molecular genetics with its application.
10. Demonstrate knowledge about single gene pattern inheritance, intermediate pattern and multiple alleles, mutations, non-mendelian inheritance, mitochondrial inheritance, genome imprinting and parental disomy.
11. Describe multifactorial pattern of inheritance, teratology, structure gene, molecular screening, cancer genetics and pharmacogenetics.
12. Demonstrate knowledge about reproduction genetics, assisted reproduction, prenatal diagnosis, genetic counseling and ethics in genetics.
13. Explain principles of gene therapy and its applied knowledge.
14. Describe immune system and cell types involved in defense mechanisms of the body. Also explain gross features, cytoarchitecture, functions, development andhistogenesis of various primary and secondary lymphoid organs in the body.
15. Demonstrate knowledge about common techniques employed in cellular immunology and histocompatibility testing.
16. Demonstrate applications of knowledge of structure & development of tissue-organ system to comprehend deviations from normal.
17. Demonstrate knowledge about recent advances in medical sciences which facilitate comprehension of structure function correlations and applications in clinical problem solving.
18. Explain collection, maintenance and application of stem cells,cryobanking and principles of organ donation from recently dead bodies.
19. Demonstrate knowledge about surface marking of all regions of the body.
20. Able to interpret various radiographs of the body, normal CT Scan, ultrasound and MRI.
21. Demonstrate knowledge about different anthropological traits and use of related instruments.

22. Demonstrate knowledge about outline of comparative anatomy of whole body and basic human evolution
23. Demonstrate knowledge about identification of human bones, determination of sex, age, and height for medico legal application of anatomy

B. Affective domain

1. Demonstrate self-awareness and personal development in routine conduct. (*Self-awareness*)
2. Communicate effectively with peers, students and teachers in various teaching-learning activities. (*Communication*)
3. Demonstrate
    a. Due respect in handling human body parts & cadavers during dissection. (*Ethics & Professionalism*)
    b. Humane touch while demonstrating living surface marking in subject/patient. (*Ethics & Professionalism*)
4. Acquire capacity of not letting his/her personal beliefs, prejudices and limitations come in the way of duty.
5. Appreciate the issues of equity and social accountability while exposing students to early clinical exposure. (*Equity and social accountability*)

C. Psychomotor domain

At the end of the course the student should be able to:

1. Identify, locate and demonstrate surface marking of clinically important tructures in the cadaver and correlate it with living anatomy.
2. Acquire mastery in dissection skills, embalming, tissue preparation,staining and museum preparation.
3. Locate and identify clinically relevant structures in dissected cadavers.
4. Locate and identify cells & tissues under the microscope.
5. Identify important structures visualized by imaging techniques, specifically radiographs, computerized tomography (CT) scans, MRI and ultrasonography.
6. Demonstrate various movements at the important joints and actions ofvarious groups of muscles in the human body.
7. Demonstrate anatomical basis of common clinical procedures expected to be performed by a basic medical doctor.
8. Demonstrate different methods of teaching-learning and make presentations of the subject topics and research outputs.

Specific practice based competencies:

Name/Description of practice based competencies
1. Gross anatomy:
1.1 Procurement, Embalming and Preservation of human cadavers
1.2 Preparation of tanks for preserving bodies

1.3 Dissection of cadaver
1.4 Window dissection of important regions
1.5 Preparation of specimens for museum with display
a) soft parts
b) models
c) charts
1.6 Preparation and preservation of human bones / skeleton as assigned by the faculty

2. Histology

2.1 Preparation of common fixatives embalming fluid 10% formalin, Bouin's fluidetc
2.2 Making paraffin blocks and section cutting and mounting
2.3 Preparation of staining set for H and E staining and staining paraffin sections with the stain
2.4 Making celloidin, araldite, gelatin blocks and their section cutting
2.5 Processing hard tissues, decalcification of bones, block making and sectioning, preparation of ground sections of calcified bones.
2.6 Frozen section cutting on freezing microtome and cryostat
2.7 Honing and Stropping of microtome knives, including sharpening by automatic knife sharpener
2.8 Histology file in which LM and EM pictures of all the organs and tissues of the body should be drawn and a small description of salient features written

3. Histochemical Methods

3.1 Practical classes for staining of glycogen, mucopolysaccharides, alkaline phosphatase acid phosphatase, and calcium

4. Cytogenetics

4.1 Preparation of media, different solutions, stains etc.
4.2 Preparation of buccal smear for sex chromatin
Human chromosome preparation from peripheral blood and karyotyping.
4.3 Banding techniques (G and C)
4.4 Making of Pedigree charts for study of patterns of inheritance.
4.5 Chromosomal Analysis.

5. Neuroanatomy:

5.1 Dissection of brain and spinal cord for teaching and learning purpose
5.2 Preparation of brain and spinal cord macroscopic and microscopic sections and identification of different parts in them.
5.3 Discussions on clinical problems related to neurological disorders and anatomical explanation for the same.

IV. *Syllabus*

A post graduate student, after three years of training in M.D. (Anatomy) should have acquired knowledge in the following aspects of anatomy:

Gross anatomy

Section - I

Gross Anatomy of entire body including upper limb, lower limb, thorax, abdomen, pelvis, perineum, head and neck, brain and spinal cord

Section - 2

Developmental anatomy/embryology

- General embryology: gametogenesis, fertilization, implantation and placenta, earlyhuman embryonic development.
- Systemic embryology: development of organ systems and associated common congenital abnormalities with teratogenesis.
- Physiological correlations of congenital anomalies.

Section - 3

Histology and histochemistry

Cell Biology:

- Cytoplasm - cytoplasmic matrix, cell membrane, cell organelles, cytoskeleton, cell inclusions, cilia and flagella.
- Nucleus - nuclear envelope, nuclear matrix, DNA and other components of chromatin, protein synthesis, nucleolus, nuclear changes indicating cell death.
- Cell cycle - mitosis, meiosis, cell renewal.
- Cellular differentiation and proliferation.

Microscopic structure of the body:

- Principles of light, transmission and scanning, electron, fluorescent, confocal and virtual microscopy.
- The systems/organs of body - Cellular organization, light and electron microscopic features, structure - function correlations, and cellular organization.

Section - 4

Neuroanatomy:

- Brain and its environment, Development of the nervous system, Neuron and Neuroglia, Somatic sensory system, Olfactory and optic pathways, Cochleovestibular and gustatory pathways, Motor pathways, Central autonomic pathways, Hypothalamo-hypophyseal system, Limbic system, Basal ganglia, Reticular system, Cross Sectional anatomy of brain and spinal cord
- Detailed structure of the central nervous system and its applied aspect.

Section - 5

Genetics

- Human Chromosomes - Structure, number and classification, methods of chromosome preparation banding patterns. Chromosome abnormalities, Autosomal and Sex chromosomal abnormalities syndromes, molecular andCytogenetics.
- Single gene pattern inheritance: Autosomal and Sex chromosomal pattern of inheritance, Intermediate pattern and multiple alleles, Mutations, Non-

Mendelian inheritance, Mitochondrial inheritance, Genome imprinting, parental disomy.

- Multifactorial pattern of inheritance: Criteria for multifactorial inheritance, Teratology, Structure gene, Molecular Screening, Cancer Genetics- Haematological malignancies, Pharmacogenetic
- Reproduction Genetics - Male and Female Infertility, Abortuses, Assisted reproduction, Preimplantation genetics, Prenatal diagnosis, Genetic Counseling and Ethics of Genetics.
- Principles of Gene therapy and its applied knowledge.

Section - 6
Immunology

- Immune system and the cell types involved in defense mechanisms of the body. Gross features, cytoarchitecture, functions, development and histogenesis of various primary and secondary lymphoid organs in the body.
- Biological and clinical significance of the major histocompatibility complex of man including its role in transplantation, disease susceptibility/resistance and genetic control of the immune response.
- Common techniques employed in cellular immunology and histocompatibility testing.
- Molecular hybridization and PCR technology in immunology research particularly mechanism of antigen presentation, structural and functional relevance of the T cell receptor, genetic control of the immune response. Molecular basis of susceptibility to disease.

Section - 7
Applied anatomy and recent advances

- Clinical correlations of structure and functions of human body. Anatomical basis and explanations for clinical problems.
- Applications of knowledge of development, structural (microscopy), neuro anatomy to comprehend deviations from normal.
- Recent advances in medical sciences which facilitate comprehension of structure function correlations and applications in clinical problem solving.
- Collection, maintenance and application of stem cells, cryobanking and principles of organ donation from recently dead bodies.

Section - 8

- **Surface Marking and Radiology**

Surface marking of all regions of the body. Interpretation of normal radiographs of the body including special contrast procedures including barium studies, cholicystrography, pylography, salphingography. Normal CT Scan, MRI and Ultrasound.

- **Anthropology**

Different anthropological traits, Identification and use of Anthropological instruments.

- **Forensic Medicine:**

Identification of human bones fromtheir remainsand determinationof sex, age, and heightfor medico legal application of Anatomy.

- **Outline of comparative anatomy of the whole body and basic human evolution**

V. TEACHING AND LEARNING METHODS

Teaching methodology

During the course, students should have formal training in teaching and research. The sessions should be in the form of:

1. **Didactic Teaching**
   Topics in gross, surface and cross sectional anatomy, microanatomy, embryology, neuroanatomy, histochemistry, and genetics taught by faculty members.
2. Training in **c**ommunication skills - journal club, seminars, demonstrations, tutorials, lectures, quizzing.
3. Hands-on experience - techniques in microanatomy, neuroanatomy, gross anatomy, embryology, histochemistry, genetics, microscopy. Embalming and preservation of cadavers
4. Teaching: participate in the teaching and training programme of undergraduate students and interns.
5. Participate in seminars, symposia, group-discussions and Journal clubs.
6. Educational technology - preparation of Audio Visual aids for teaching, posters/manuscripts for presentation in conferences/workshops and publication in journals.
7. Participation in formulating evaluation methods: Setting objective questions, Short Answer Questions, Multiple Choice Questions and Objective Structured Practical Examination (OSPE).
8. Prepare teaching modules and museum specimens.
9. Participation in organization of symposia/workshops
10. Explain and interpret normal radiological anatomy and sectional anatomy of the human body as studied by various imaging techniques.
11. Comprehend and demonstrate surface and living anatomy of the human body.
12. Relate forensic anatomy to the study with medico-legal aspects of bone in particular.
13. Explain the general principles of Anatomy Act and Organ Transplantation Act.

14. Comprehend ethical aspects of biomedical research.
15. Comprehend the basis of disposal of biomedical waste.
16. Comprehend horizontal integration of various subdivisions of anatomy with relevant physiology and biochemistry.
17. **Log Book:** Every student should maintain a logbook in which a record of the practical exercises completed should be entered. The Log books shall be checked and assessed periodically by the faculty members imparting the training.
18. 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 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.
19. Department should encourage e-learning activities.

COURSE DESCRIPTION

I. **Eligibility**: As per the guidelines of Medical Council of India and affiliated university.

II. **Duration**: 3 years

III. **Desirable qualities**: The student should have an aptitude for teaching and reasonable command over spoken and written English language

IV. **Details of Training**: The P.G. student would be a resident in the department for 3 years.

The time-plan and the division of curriculum will be on the following lines.

1. **FIRST YEAR OF COURSE**
   a. Orientation programme- Institutional and departmental orientation including duties and responsibilities of a postgraduate student.
   b. Time Management - should be conducted within 3-6 month.
   c. Research methodology workshop training within first six month
   d. Gross anatomy: Dissection of one whole human body and study of gross anatomy and acquisition of embalming skills.
   e. Microanatomy: Basic techniques in tissue processing, preparation of blocks, microtome sections and H & E and principles of the following special stains -silver nitrate, periodic acid Schiff, osmic acid, Masson's trichome, Verhoeff and Orcein stains.
   f. To attend all undergraduate lectures held in the department of Anatomy colleges.
   g. To actively participate in and present various topics in microanatomy sessions
   h. To present the topic for dissertation and the research design in front of an ethical and research committee within first six months of registration.

Thereafter periodic assessment of the progress of the dissertation (every 6 monthly) will be done by the concerned PG teacher.

i. Get trained to use computer for teaching and use the internet
j. To attend all the symposium/ seminars/journal club/ research society meetings of PIMS.

Presentation in research society meeting.
Attend and present papers and posters in regional /national conferences of the subject.

a. **TEACHING**

i. Microteaching sessions are essential before small group teaching. (Annexure II)
ii. small group teaching(on dissection table and histology practical)
iii. Exposure to evaluation techniques
iv. Exposure to Medical Education Technology Workshops
v. vi. Presentation in Journal club.
vi. Presentation in Seminars and symposia.
vii. iv. Completion of Microanatomy and Developmental anatomy Journals.

b. RESEARCH

i. In consultation with and under the guidance of guide and head of the department the candidate, looking the feasibility aspect, should have selected the topic of dissertation within the stipulated period as announced by PIMS.
ii. To collect the literature from various sources, to prepare synopsis, which has to be submitted for approval with institutional ethical and research committee.
iii. Collection of relevant literature for a given topic, carrying out research and collection of data.
iv. Maintenance of proper observational records; periodical review of the work to be submitted to the principal, signed by head of the department of Anatomy, RMC.
v. Exposure to computer for various applications.
vi. To methodologically develop the aptitude and skill required for undertaking research

c. Maintenance of Log book

2. SECOND YEAR OF COURSE

a. TEACHING

i. Should actively participate in small group teaching.
ii. Should be conversant with the use of various audiovisual aids

iii. Presentation in Journal Club
Presentation in Seminars / Symposia at the departmental and institutional level
iv. Explain and interpret normal radiological anatomy and sectional anatomy of the human body as studied by various imaging techniques.
v. Comprehend and demonstrate surface and living anatomy of the human body.
vi. Participation in formalating evaluation method

b. RESEARCH

Starting the work on thesis by the beginning of first year of residency with the aim to complete the data collection.

c. Maintenance of Log book

3. THIRD YEAR OF COURSE

a. TEACHING

i. Lectures, lecture-demonstration, small group teaching
ii. Seminars / Symposia
iii. Journal Club
iv. Participation in formalating evaluation method: Setting objective questions, Short Answer Questions, Multiple Choice Questions and Objective Structured Practical Examination (OSPE).
v. Relate forensic anatomy to the study with medico-legal aspects of bone in particular.
vi. Explain the general principles of Anatomy Act and Organ Transplantation Act.
vii. Comprehend ethical aspects of biomedical research.
viii. Comprehend the basis of disposal of biomedical waste.
ix. Comprehend horizontal integration of various subdivisions of anatomy with relevant physiology and biochemistry.

b. RESEARCH

i. Interpretation of data obtained
ii. Application of biostatistics to know significance of finding
iii. Preparation and timely submission of dissertation as per the rules laid down by PIMS and MCI.
iv. Presentation in institutional research society, and national conferences.
v. Writing articles for publication
vi. During entire three years course student is 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 his postgraduate

studies so as to make him eligible to appear at the postgraduate degree examination.

c. Maintenance of Log book

Log book

A detail Log book should be maintained by the student & the following should be regularly entered and got signed from HOD.

a. Details of seminars and journal club attended and presentations
b. Presentation in the Institutional Research Society, National conferences.
c. Attending the various CMEs, Seminars ,Symposia and workshop at institutional /state/national level
d. Record of practical work done in various subgroup of anatomy.
e. Contribution in the development of departmental laboratories/museum.

VI. ASSESSMENT

FORMATIVE ASSESSMENT:

Formative assessment should be continual and should assess medical knowledge, procedural & academic skills, interpersonal skills, professionalism, self-directed learning and ability to practice in the system.

During the three year training period,

A record of all theoretical, practical and experimental work done by the post graduate student and its assessment will be kept and shall be available for examiners at the time of the final practical and viva voce examination and

There will be periodical examinations during the course of training. The pre- final theory and practical examination will be conducted by the faculty of the concerned college. During last six months the post graduate student will have weekly assessment tutorials conducted by the faculty. All activities will be evaluated.

General Principles

Internal Assessment should be frequent, cover all domains of learning and used to provide feedback to improve learning; The Internal Assessment should be conducted in theory and practical/clinical examination.

Quarterly assessment during the MD training should be based on:

1. **Journal based / recent advances learning**
2. **Patient based /Laboratory or Skill based learning**
3. **Self directed learning and teaching**

4. Departmental and interdepartmental learning activity

5. External and Outreach Activities / CMEs

Students assessed periodically as per categaries listed in pastgraduate student appraisal form(Annexure I)

Student Assessment& Evaluation

Evaluation:

Formative evaluation to be carried out with the help of internal assessment based on

1. Teaching: (Evaluated based on a proforma given for Microteaching) (Annexure II)
2. Dissection (Evaluated during routine Dissection hall assignments).
3. Completion of Microanatomy and Developmental anatomy Journals.
4. Completion of Log Book
5. Examinations: Students shall be evaluated as follows

a. Theory:Theory:

- First Year: They have to appear for all the part completion and theory Internal assessment examination (Terminal + Preliminary) that are conducted for undergraduate students of Ist MBBS.
- Second year end –two papers
  Paper I – Embryology and Genetics
  Paper II –Neuroanatomy and applied anatomy.
- During 6th Term (2 months before University examination)
  Preliminary examination as per the university examination pattern

b. Practical and viva

- First Year end
  They have to appear for all the part completion and practical Internal assessment examination (Terminal + Preliminary) that are conducted for undergraduate students of Ist MBBS.
- Second Year end
  After the theory examination for second year end, a practical examination shall be held under following heads
  - Prepare a tissue block, stain and discuss + 10 microanatomy spots and discussion.
  - Window dissection
  - Viva on Osteology and soft parts.
  - Viva on embryology models
  - Viva on brain
- During last term (2 months before university exam) Preliminary examination as per the university examination pattern.

c. Head of Passing: A) Theory B) Practical + Viva

d. Standard of Passing: A candidate shall obtain minimum 50% in each of the head of the passing.

University Examination

Eligibility for appearing for university examination:

1. Candidate has to submit dissertation completed in all respects to the university within the stipulated time.
2. Candidate must maintain and produce logbook completed in all respects at the time of Examination.
3. It is mandatory to send six-monthly progress report (as per proforma) of the student to Principal RMC, signed by head of the department of Anatomy

The Post Graduate examination will be in three parts:

1.Thesis:

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

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 Theoryand Practical/Clinical examination only after the acceptance of the Thesis by the examiners.

Theory Examination:

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

2.

Theory

Duration of each paper: 3 hours (Each paper shall have 3 long questions (20 marks each) and 1 short note questions with 4 notes (10 marks) covering all topics included in the syllabus.) Paper wise distribution of syllabus is as given in the university syllabus

The examinations shall be organised on the basis of 'Grading'or '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.

Paper I: Gross Anatomy
Paper II: Embryology, Microscopic Anatomy and Genetics
Paper III: Neuroanatomy
Paper IV: Applied Human Anatomy and recent advances in anatomical Sciences

Theory Papers

Paper I: Gross Anatomy

a. Gross Anatomy of whole human body i.e. upper limb, lower limb thorax, abdomen, pelvis, head and neck
b. Method of preservation of human body and its parts, radiological anatomy, sectional anatomy.

Paper II: Embryology, Microscopic Anatomy and genetics

a. General Principles of genetics, Cytogenetic as applicable to medicine and different genetic disorders, gene therapy.
b. General Embryology, Systemic Embryology, methods of experimental embryology, clinically oriented embryology and teratology
c. Histology (including fine structure) of tissues and organs of the body.
d. Principles of light, transmission and scanning electron microscopy, confocal, virtual microscopy.

Paper III: Neuroanatomy

Neuroanatomy - gross and applied aspects

Paper IV: Applied Human Anatomy and recent advances in medical sciences

a) Clinical and applied aspect of Anatomy
b) Recent advances in the application of knowledge of anatomy on human body
c) Collection, maintenance and uses of stem cells
d) Cryobanking
e) Basics of principles of organ donation from recently dead bodies.

Practical's: spread over minimum of days

Practical and Oral/Viva-Voce Examination

Practical Examination to be organized as per details given below:

Dissection on cadaver
Histology spotting
Histological techniques Surface Marking

Radiology
Teaching ability
Thesis presentation

Oral/Viva-voce Examination

Grand viva

On dissected parts of the whole human body including nervous system, and Embryology models, teratology, skeletal system including short bones, embalming techniques and genetics, radiographs, MRI, CT & ultrasonographs.

Practical Examⁿ: Student shall be evaluated for 400 marks with the following exercises.

- Prepare a tissue block, stain and discuss + 10 microanatomy spots and discussion.
- Window dissection
- Viva on Osteology and soft parts.
- Viva on embryology models
- Viva on brain

Distribution of Marks (Practical) shall be as follows

- Window Dissection + Viva : 120
- Preparation of tissue block and staining + Viva : 60
- Microanatomy spots and Slide Discussion(10) : 60
- Micro teaching : 40
- Grand Viva including viva on dissertation : 120

Viva Examination: Duration –1 hour per student
(Combined viva by all examiners)

1. General Viva : 30 minutes
2. Viva on dissertation : 20 minutes
3. Micro teaching : 15 minutes

Head of Passing: A) Theory B) Practical + Viva

Standard of Passing: A candidate shall obtain minimum 50% in each of the head of the passing

University practical Examination Two days shedule

(a): Gross Anatomy

Dissection and related viva voce

(b): Histology

Spotting (10 spots) and viva voce
Techniques paraffin block making, section cutting. Staining (H and E) stain) with related viva

Second Day Practical:

a) Microteaching of a short topic to assess teaching skills

b) A short synopsis of the thesis work should be presented by the post graduate student

c) Grand viva including Gross anatomy, cross sectional anatomy, radiological Anatomy, Surface Anatomy, Embryology

First Day Practical:

Roll No.	**Exam No. 1**	**Exam No. 2**		**Practical Total**
	Window Dissection	Histology teaching Preparation of Tissue Block + Staining	Histology Spots & Histology Discussion (5x 10) Genetic charts (10)	
	120	60	60	240

Day Two

Roll No.	**Exam N. 3 : Grand Viva**						**Exam No.4**	**Day 2 Total**	**Grand Total**
	Hard Parts	Soft Parts	Surface Anatomy	Radio.	Embro. Models	Thesis presentation	Micro - Teaching		
	30	30	10	20	30	15	25	160	400

VII. MANDATORY COMPLIANCE

1	The Model Weekly Time Table for Teaching learning activities is enclosed as	**:**	**Annexure – I**
2	Mandatory compliance of a PG student in T.L. process and CIA during the three year of study are given in	**:**	**Annexure – II**
3	The units for Quarterly assessment for CIA is given in	**:**	**Annexure – III**
4	Post Graduate student Quarterly Appraisal form for CIA is enclosed as	**:**	**Annexure – IV**
5	Mandatory Requirements to be eligible to appear for the University Summative Evaluation Examination is given in	**:**	**Annexure – V**
6	The Proforma of the Certificate on Attendance, Training Completion, Publication and Presentation Research / Poster / oral submission of Dissertation and present of all theory practical fee to be duly filled in and duly signed by PG Guide HOD, Finance Officer, Dean of faculty an HOI to be submitted to university COE before the issue of Hall Ticket for final exam is given us	**:**	**Annexure – VI**
7	The model QP pattern of paper I/II/III/IV, each of 100 marks and of 3 hours duration is enclosed as	**:**	**Annexure – VII**

8 The model Blue print for setting of Question papers and proper verbs/ phrases to be used in QP setting is given in **: Annexure – VIII**

9 The model marks list for practical and Vivavoce for PG medical MD/MS/ examination is enclosed as**. : Annexure – IX**

VIII. RECOMMENDED READING:

Books (latest edition) Gross Anatomy:

1. Susan Strandring: Gray's Anatomy: The anatomical basis of clinical practice, Churchill Livingstone Elsevier.
2. Dutta A.K. Human Anatomy vol. I-III Current Publisher.
3. Dutta A.K. Principle of General Anatomy. Current Publisher.
4. Romanes. Cunningham's Manual of Practical Anatomy vol. I-III, Oxford.
5. Keith and Moore Clinical Oriented Anatomy. Lippincot Williams and Willkins.
6. R.S Snell. Clinical Anatomy by regions. Lippincot Williams and Wilkins.
7. J.V. Basmajin. Grant's Method of Anatomy. Williams and Wilkins.
8. R.J. Last. Anatomy Regional and Applied. Churchill Livingston.
10. Lee McGregar. Surgical Anatomy. K.M. Varghese.
11. A.G. R Deckeg, D.J du Pless Lee. McGregor's Synopsis of Surgical Anatomy. Varghese Publishing House.
12. Snell. Clinical anatomy by regions. Lippincotts, Williams and Wilkins.
13. S. Chummy Sinnatanmy. Last's Anatomy Regional and Applied. Churchill Livingston.
14. Hollinshed W Henry. Anatomy for surgeons. Vol. I-III Lippincotts, Williams and Wilkins.
15. Vishram Singh. Clinical and Surgical Anatomy. Elsevier.
16. Vishram Singh. Textbook of general anatomy. Elsevier.
17. Frank H. Netter. Atlas of Human Anatomy. Saunders Elsevier.

Histology

1. Young B. and Heath J. Wheater's Functional Histology.Churchill Livingstone.
2. M.H. E Ross. Histology: A textbook and atlas. Williams and Wilkins.
3. V. Bharihoke. Text book of human histology. Delhi AITBS.
4. Difiore's. Atlas of histology with functional co-relation.
5. Bloom and Fawcett. Text book of histology.
6. Carlton's. Histology Technique.
7. E.C. Clayden. Practical of section cutting and staining.
8. D W Cormack. Ham's Histology. Lippincotts, Williams and Wilikins.
9. Bloom and Fawcett. Textbook of Histology.

Genetics

1. J.S Thompson and Thompson . Genetics in medicine. W.B. Saunders and Co. Philadelphia, London.

2. George Fraser and Oliver Mayo. Text book of Human Genetics. Blackwell Scientific Publications London, Oxford Edinburg, Melbourne.
3. HannSellwerger and Jame Simpson. Chromosomes of Man. Sparsher's International Medical Publications.

Embryology

1. Hamilton, Boyd. and Mossman. Human Embryology.
2. TW Sadler. Langman's Medical Embryology. Lippincotts, Williams and Wilikins.
3. Keith L Moore and T.V.N. Persaud. The Developing Human. Saunders.
4. Rani Kumar. Text book of embryology. I.K. International New Delhi

Neuroanatomy

1. Richard S. Snell. Clinical Neuroanatomy for Medical Students. Williams and Wilkins.
2. A. Parent. Carpenter's Human neuroanatomy. Williams and Wilkins.
3. Vishram Singh. Clinical Neuroanatomy. Elsevier.
4. A. K. Dutta. Essentials of Neuroanatomy. Current books international.
5. John A. Kiernan. Barr's the human nervous system, Lippincott, Williams and Wilkins.

Statistics

1. David E. Matthews and Vernon T. Farewell. Using and Understanding Medical Statistics. Karger.

Radiology

1. T.B. Moeller et.al. Sectional Anatomy CT and MRI Vol. I, II, III New York. Theme Stuttgart.
2. J.B. Walter et.al. Basic Atlas of Sectional Anatomy with correlated imaging. Saunders Elsevier.

Surface anatomy

1. SP John, Lumley editors. Surface Anatomy, The Anatomical basis of clinical examination. London: Churchill Livingstone.
2. A. Halim. and A.C. Das. Surface Anatomy Lucknow. ASI, KGMC.

Journals

03-05 international Journals and 02 national (all indexed) journals

Annexure - I

P.G. Teaching Time Table – Model

Clinical postings (OPD – IPD Duties Ward Rounds, Casualty posting, ICU posting, posting to support Departments like Radiology, Anaesthesia CCL , Pathology, FMT, Postings to field work and PHCs Camps and other postings as per provisions of MCI, are mandatory on all week Day as per posting.

Day of the week	Time 03 to 5 PM
Monday	Journal Club
Tuesday	Case presentation / Micro Clinic- Patient based Training
Wednesday	Seminar / GD / Panel Discussion
Thursday	Lecture by Faculty on select Topics
Friday	Clinical Meet / CPC / CME
Saturday	Guest Lecture by Experts / Skill Lab or Simulation Lab
Sunday (Select ones)	Medical Camps / Blood Donation Camp / Other types of Camps

Note

1. The Dept may select suitable days for a particular task assigned. But all of 7 tasks per week are a must
2. All the PG Teachers, PG students must attend these PG TLE Activities.
3. Attendance for these activities shall be maintained at the Department and Institutions. Implementation of the MCI Regulations, Syllabus and Time Table is the responsibility of HOD / HOI.

HOD HOI DEAN OF FACULTY REGISTRAR

Annexure – II

Mandatory Compliance of a PG student in Teaching – Learning Activities
As per MCI Regulations Syllabus and Advisory

Sr. No.		Activities to be carried at by a PG student	Number per Ist year (Minimum)	Number Per IInd Year (Minimum)	Number per IIIrd year (Minimum)	Total Number (Minimum) For 3 years
1		Presentation of Journal Articles in Journal club	12	12	6	30
2	a	Case Presentation / Clinic	4	8	8	20
	b	Skill Lab & Simulation	4	4	4	12
3	a	Presentation of Seminars	4	4	4	12
	b	Leading a Group Discussion on a select Topic	4	4	4	12
	c	Assignment submission	4	4	4	12
4	a	Lectures / Tutorials to UG students /panel Discussion	4	4	4	12
	b	Clinical meeting CMC/ CPC	12	12	12	36
	c	BLS	1	--	--	1
	d	ACLS	1	--	--	1
5		Medical Camps Health Checkup at Villages / Schools/ Blood Donation / etc.	6	6	6	18
6	a	Orientation Programme	1	1	1	3
	b	Research Methodology Workshop	1	--	--	1
	C	Presentation of synopsis of the Thesis / Dissertation	1	--	--	1
	d	Presentation of Mid Term work of Thesis / Dissertation	--	1	--	1
	e	Presentation of final Draft of Dissertation / Thesis	--	--	1	1
	f	Presentation of Research Article	--	0 or 1	0 or 1	1
	g	Publication of an Article	--	0 or 1	0 or 1	1 or 2
7		LOG Book	1 (a)	1 (b)	1 (c)	1 a+b+c
8		CIA	4	4	4	12
9		Any other Activity Specified by Dept.				

Note :- 1. The Department may conduct periodic preparatory tests in Theory / Practical/Clinicals and Vivavoce. Quiz and MCQ test may to be adopted

2. The 12th CIA may also include a preparation examination on the model of university examination as a training cum assessment

HOD HOI DEAN OF FACULTY REGISTRAR

Annexure – III

Units of Quarterly Assessment of Every student (Internal)

Formative Assessment – Quarterly Assessment (Total 12 CIAs)

As per Annexure III.

1. **Journal Based / Recent Advances learning**
   (Bases on Journal Clubs / Select Article Presentation , Review Article preparation and presentation)
2. **Patient Based and Laboratory Based and skill Based learning**
   (Based on clinical Posting – OPD / IPD Ward Rounds/ casualty/ Case Examination/ presentation /Diagnosis / Interpretation /of Clinical Diagnostics/ Differential Diagnosis, Prognosis/ Morbidity/ Mortality/ Community Medicine/ Promotion/ prevention/ Control/ Prophylaxis/ Epidemiology/ Simulation Studies/ Skill Based Studies and so on)
3. **Self Directed Learning and Teaching**
   (Seminars Panel Discussion Group Discussion, Assignments, Case studies, Preparation of Charts and Models etc. , Role Play, Debates, Moot courts, etc)
4. **Departmental and Inter Departmental Learning Activities.**
   (Participation in UG/PG teaching / Horizontal and Vertical Integrated Lectures, Clinical meeting / CPC / CME)
5. **External and out research Activities**
   (Participation in Camps, Posting and Visit to PHCs, Satellite clinics, Mobile Clinics, Health checkup Camps, Blood Donation Camps, Immunization Camps school Visits. Crisis / Disaster Management, Celebration of Commemorative Days and soon)
6. Thesis / Dissertation Research Work related to selected Topic
7. a) Log Book maintenance/ Portfolio management - To maintain LOG Book or portfolio management of all the TL Activities
   b) Presentation / Publications of Research Article

No.		Particulars	Minimum for 3 months
1		Journal based Recent Advance Learning- Presentation of select Article in Journal clubs	3
2	a	Patient Based laboratory or Skill based learning- Case presentation / Clinic	1 (1st year) 2 (2nd & 3rd year)
	b	Skill Lab / Simulation Lab Work	1
3	a	Self Directed Learning & Teaching- Presentation of Seminar	1
	b	Leading a Group Discussion on select Topic in GD	1
	c	Assignment Submission	1
4	a	Lecture / Tutorials / Panel Discussions with UG students	1
	b	Clinical Meetings (CME's) CPC/Dept. meeting	3
5		Medical Camps	1
6		Dissertation Work Research methodology workshop	Yes / No
7		Log Book & Attendance	Yes / No
8		Any other Activity Prescribed (T/P/Viva)	Yes / No

HOD HOI DEAN OF FACULTY REGISTRAR

Annexure IV

Postgraduate Students Appraisal Form
Pre / Para /Clinical Disciplines – MD/MS Degree

Name of the Department/Unit : Roll No.:
Name of the PG Student :
Period of Training : FROM……TO……

Quarterly Assessment (1/2/3/4/5/6/7/8/9/10/11/12)

Sr. No.	PARTICULARS	Not Satisfactory			Satisfactory			More Than Satisfactory			Remarks
		1	2	3	4	5	6	7	8	9	
1.	Journal based / Recent advances learning										
2.	Patient based/Laboratory or 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.	Performance in Theory/Practical/Viva voce Tests										
	Overall Assessment										

- **Publications of Research Article** **Yes/ No**
- **Presentation of Research Article**
- **The student has complied with mandatory requirement for quarterly assessment & presentation of Research Profile** **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 is strongly recommended.**

SIGNATURE OF ASSESSEE **SIGNATURE OF HOD**

HEAD OF THE INSTITUTION

Annexure - V

Mandatory Requirements to be eligible to eligible to appear for university Summative Examination / Evaluation – As per MCI Regulations. (As per MCI Medical Education Regulation 2000, amended from time to time till date)

1. Minimum percent of Attence as per MCI Regulations.
2. Satisfactory performance in 12 CIA conducted and certified by HOD HOI and PG Guide.
3. Certificate from F.O. stating that all the fees due from the student are paid and credited to PIMS-DU A/.c
4. Presentation of a Research Article / Poster in a national / state level conference /Seminar / Workshop.
5. Publication of a Research Articles as first – author in (indexed in supus or web of science or as fixe by MCI Regulations and visited by UGC (ARE list).
6. a) Thesis – Finalisation of Topic and Title – submission of Synopsis following IEC clearance within 6 months of Adm. Topics
   b) After II year of a Admission or 3 terms Midterm Review .
   c) Thesis to be submitted at least 6 months before final examination.
   d)Thesis to be examined by 3 Examiners. (1 Internal and 2 External PG Examiners)
   e) Its Acceptance is a must for appearing for University T & P Exam

Note :- HOD & HOI shall ensure provisions of 1,2,3,4,5,6 a,b,c. The COE shall ensure provisions of 1,2,3,4,5,6 a,b,c ,d,e & e as per MCI Regulations

HEAD OF DEPARTMENT **HEAD OF INSTITUTION** **DEAN OF FACULTY** **REGISTRAR**

Annexure - VI

Ref. No. Date: _____

Complaince to MCI's Regulations Governing Post Graduate Programme in Medical Faculty

Department of _____ PG Programme: MD/ MS in _____

Name of Candidate: _____, JR-III

PRN No. _____ Date of Admission _____

Certification on
Attendance and Training Completion
Publication & Presentation of Research Articles (Poster/ Oral)
Submission of Dissertation & Payment of All types of prescribed fees

It is hereby certified that the said candidate JR-III in the Dept. of _____ at Rural Medical College has completed 6 academic terms/ 3 academic years and fulfilled the prevailing provisions of the MCI Regulations governing MD/MS PG programmes and the rules of PMT, PIMS-DU. Details are as under.

1.	**Attendance Fulfillment ***	**% Attendance**	**Remark – Eligibility**
	I Academic Term		
	II Academic Term		
	III Academic Term		
	IV Academic Term		
	V Academic Term		
	VI Academic Term		
	Overall fulfillment		Fulfilled / Not Fulfilled
	* Fulfillment of a minimum of 80% of attendance/ academic term, for 6 terms/ 3 years including imparted training, assignment, fulltime responsibilities and participation in all facets of PG education process including periodic assessment and so on as per MCI Regulations.		
2.	Log Book maintained as per MCI Regulations & Fulfilled the graded responsibilities in the management and treatment of patients entrusted for their care Verified by Dr. _____ Certified by Dr. _____		Yes/ No
3.	Successful participation in teaching and training programmes organized by the department for UG and Interns		
4.	Presented and Participated in Seminars, Journal Clubs, Case Presentations, Group Discussions, Clinical Meetings, CME Ward Round, CPC, Practicals organized by the Department as per the timetable.		
5.	Participated in training sessions in diagnostics, medical/ surgical training, in basic/ applied medical and allied clinical specialties and Medical Camps as per the timetable		
6.	The Performance of the PG students in 12 CIAs (Conducted quarterly) are satisfactory as per appraisal proforma as per MCI Regulations.		
7.	Presented one research poster and one research article (oral) in a Seminar/		

	Symposia/ Workshop/ Conference (National/State). The certificates for presentation of paper/ poster are enclosed.	
8.	Published one research article in a scientific journal as per norms. The copy of the published research article is enclosed.	
9.	Submitted a Dissertation entitled _____ _____ _____ _____ under the guidance of Dr. _____	
10.	Paid all the fees (tution fees and other fees) vide receipt No._____ for all 3 years.	
11.	Produced NOC from all the sections of PMT PIMS-DU concerned about "NO DUES"	
12.	Paid Examination fees of Rs. _____ vide Challan/ Receipt No. _____ dated _____ issued by Finance Officer PIMS-DU.	

It is hereby declared that the all the duly certified and verified documents, related to the aspects mentioned above, are in the custody of department concerned and student section of Rural Medical College with due authentication and signature of concerned HOD/ Dean/ Principal/ Dean of Faculty) and will be made available for any MCI inspection as per norms and Regulations.
Accordingly He/She is eligible/ not eligible for appearing in final year PG examination as per the MCI Regulations governing PG Programmes.

PG Guide
Dr. _____

Seal

Head of the Department
Dr. _____

Verified and certified that all types of prescribed fees and fines PMT, PIMS-DU, College, Hostel & Others mentioned at sl.no. 10, 11, 12 are paid by the student and credited to the accounts of PMT & PIMS-DU.

Seal

Finance Officer
PIMS-DU

Verified the relevant documents and certify that the candidate is eligible to appear for final year PG Examination as per MCI Regulations and rules of PIMS-DU.

Dean
Faculty of Medicine

Seal

Dean
Rural Medical College

Ref_____ **For Officer Use Only** Date: _____

The HOD, HOI and Dean have certified that the

a. Candidate is eligible to appear for PG Theory and Practical/ Clinical Examination as per MCI Regulations. F.O. has certified that all the fees has been credited to PMT, PIMS-DU Accounts.

b. The Dissertation submitted has been evaluated by external examiners and then have approved the same for acceptance as per MCI Regulations.
c. Hence the candidate be permitted to appear for the PG examinations (Theory & Practical/ Clinical) scheduled in the month of _____ year _____.

Controller of Examinations

Seal

Submitted for perusal and approval

Vice Chancellor

Annexure – VII

PRAVARA INSTITUTE OF MEDICAL SCIENCES
(Deemed to be University)

Post Graduate Degree in Anatomy (MD)

Examination _____ 20__

Paper – I/ II/ II/ IV

Paper Title : _____ Date: / /20

Marks : 100 Time:

Instructions to candidate:

1) All questions are compulsory
2) Answer written in illegible handwriting will not be assessed.
3) Write answers on both sides of answer paper.
4) Neat diagrams must be drawn wherever necessary.
5) Write prescription where indicated, and in the use of drugs their doses should be given.

Que. 1		Marks 20
Que. 2		Marks 20
Que. 3		Marks 20
Que. 4	Write Short notes on	Marks 40 (10x4)
	a	
	b	
	c	
	d	

Annexure – VIII

Table 1: Showing BLUEPRINTING for theory paper setting

The number of Questions & their distribution of marks shall be as per MCI model Question Paper [only Illustration]

LAQ/ SAQ and their Marks

LEVEL	Q	Q	Q	Q	Q	Q	Q	Total
	Mark	Mark	Mark	Mark	Mark	Mark	Mark	
Knowledge								
Comprehension								
Application								
Analysis								
synthesis								
Evaluation								
TOTAL								**1000**

The Questions (Whether LAQ or SAQ) Must aim at assessing all the 6 domains

Note: This is only an illustration. Actual Number of Questions and their distribution of marks shall be as per model Question Paper of MCI. (i.e. regarding the number of LAQ / SAQ and their marks distribution)

Table 2: Showing appropriate verbs suitable to level of knowledge for theory paper setting

Level	Suggested Verbs
Knowledge	Define, Describe, Draw, Find, Enumerate, Cite, Name, Identify, List, label, Match, Sequence, Write, State
Comprehension	Discuss, Conclude, Articulate, Associate, Estimate, Rearrange, Demonstrate understanding, Explain, Generalize, Identify, Illustrate, Interpret, Review, Summarize
Application	Apply, Choose, Compute, Modify, Solve, Prepare, Produce, Select, Show, Transfer, Use
Analysis	Analyze, Characterize, Classify, Compare, Contrast, Debate, Diagram, Differentiate, Distinguish, Relate, Categorize
Synthesis	Compose, Construct, Create, Verify, Determine, Design, Develop, Integrate, Organize, Plan, Produce, Propose, rewrite
Evaluation	Appraise, Assess, Conclude, Critic, Decide, Evaluate, judge, Justify, Predict, Prioritize, Prove, Rank

Table 3: Showing examples of theory questions

Sr. No.	Type	Explanation	Examples
1	**Long essay question**	✓ Question should pose clinical problem that will require student to apply knowledge along with integration with disciplines ✓ Avoid one liner as question ✓ Question stem should be structured ✓ Marking distribution should be provided ✓ Use of proper verbs from higher domains as given in this document ✓ Avoid recall based questions	
2	**Short notes**	✓ Sample a wider content ✓ Questions should be task oriented ✓ Reasoning questions provide opportunity for testing integration, clinical reasoning and analytical ability of the student	

Table 4: Showing Objective structured clinical examination [OSCE] typical station

Sr. No.	Type of station	Time allotted	Example	Evaluation
1	Procedure			
2	Response			

Annexure – IX

University Examination
Model Marks Sheet
For Practical / Clinical Examination and Viva voce

Duration _____ **Max Mark – 400**

Illustration only

No.	Type of Examination	Marks Allotted	Scored
1	**Long Cases**		
2	**a) Short cases (No. of small cases and Marks for each cases) 1/2/3/4-------- b) Ward Round c) Any other**		
3	**Spotter / OSPE/ Oral / Vivavoce Sub Divisions i) iv) ii) v) iii) vi)**		
	Ground Total	**400**	

PG Examiners		Name	Signature
1	**Chairman Name**		
2	**Internal Examiner**		
3	**External Examiner**		
4	**External Examiner**		

Date:-
Place :-

Note:- 1) The Number of cases, type of cases and type of practical and orals / vivavoce and their distributions of marks shall be as per MCI Regulations / Syllabi.
2) The HOD / Chairman / Co Chairman BOS shall ensure at this proforma is prepared as per the MCI Regulations / Syllabi.

(Microteaching assessment proforma)

Direction to the Observers- Please tick the statement which most closely corresponds to your observation

Name of the Teacher/Observer: _____

Topic: _____

Date: _____

S.No	Skill	Teacher action	Yes	Partially	No
1	Set induction	Aroused the interest at the beginning			
		Specified objectives of presentation			
2	Planning	Organized material in logical sequence			
		Used relevant content matter			
3	Presentation	Fluency in language			
		Used non verbal cues, eye contact etc			
4	Interaction	Allowed questions from the students			
		Asked questions			
		Rewarded pupil effort			
		Clarified doubts			
5	Use of audiovisual aids	Used proper AV aids			
		Used the aid effectively			
6	Summarization	Reviewed important points in the end			
		Check that all the students understand the points			
		Lesson on the whole was effective			
7	Any suggestions for the speaker to improve the Teaching – learning exercise				

Weekly Time Table for PG students

	9-10am	10-11am	11-12n	12-1pm		2-3pm	3-5pm
Monday	Embryology Lecture	Self-Study	Histology Practical		**Lunch Break**	Demonstration	Museum Techniques
Tuesday	Self Study	Gross Anat. Lecture	Dissection			Teaching Methodology Training	Dissection
Wednesday	Self Study	Gross Anat. Lecture	Journal club /seminar			Demonstration	Dissection
Thursday	Self Study	Gross Anat. Lecture	Dissection			Self Study	Dissection
Friday	Self Study	Gross Anat. Lecture	Dissection			Demonstration	Dissection
Saturday	Gross Anat. Lecture	Gross Anat. Lecture	Histology Techniques	Histology Techniques		-	

PRAVARA INSTITUTE OF MEDICAL SCIENCES * (Deemed to be University) * Loni - 413736 Tal - Rahata Dist. Ahmednagar (M.S. India)

Registrar
Pravara Institute of Medical Sciences
(Deemed to be University)
Loni - 413736, Tal. Rahata
Dist. Ahmednagar (M.S. India)