

Pravara Institute of Medical Sciences (Deemed University)

FACULTY OF MEDICINE

Rules & Regulations for the P. G. Courses

**Loni bk. 413 736, Tal. Rahata,
Ahmednagar Dist.
Maharashtra**

Rules & Regulations for Post-Graduate Medical Courses

Courses for the Degree of Doctor of Medicine (M.D.),
Master of Surgery (M.S.) and Master of Science (M.Sc.),
Doctorate of Medicine (D. M.),
Master of Chirurgery (M.Ch.) and P.G. Diplomas

It is hereby notified for the information of all concerned that the Post Graduate Medical Courses in different subjects, as noted below have been approved and accepted by the Authorities of Pravara Institute of Medical Sciences (Deemed University), Loni and will come into effect from May 2004.

Registrar

Pravara Institute of Medical Sciences

Circular No:

Date :

Rules & Regulations for Post-Graduate Medical Courses

(1) GENERAL INSTRUCTION FOR POST GRADUATE TEACHING INSTITUTE:

- 1.1 An institution intending to start a post graduate medical education course or to increase the admission capacity shall obtain permission of the Central Government under section 10A of the Indian Medical Council 1993 Act.
- 1.2 Post graduate curriculum shall be competency based
- 1.3 Learning in postgraduate programme shall be essentially autonomous and self directed.
- 1.4 A combination of both formative and summative assessment is vital for successful completion of the PG programme.
- 1.5 A modular approach to the course curriculum is essential for achieving a systematic exposure.
- 1.6 The training of PG students shall involve learning experiences `derived from' or `targeted to' the needs of the community. It shall, therefore, be necessary to expose the students to community based activities.

(2) GOALS OF POSTGRADUATE MEDICAL EDUCATION PROGRAMME

The goals of postgraduate medical education shall be to produce competent specialist and medical teacher :-

- 2.1 Who shall recognise the health needs of the community, and carry out professional obligations ethically and in keeping with the objectives of the national health policy
- 2.2 Who shall have mastered most of the competencies, pertaining to the specialty that are required to be practiced at the secondary and the tertiary levels of the health care delivery system.
- 2.3 Who shall be aware of the contemporary advances and developments in the discipline concerned.

- 2.4 Who shall acquire a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology, and
- 2.5 who shall have acquired the basic skills in teaching of the medical and paramedical professionals.

(3) GENERAL OBJECTIVES OF POSTGRADUATE TRAINING EXPECTED FROM STUDENTS AT THE END OF POSTGRADUATE TRAINING

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

- 3.1 Recognise the importance of the concerned speciality in the context of the health needs of the community and the national priorities in the health sector.
- 3.2 Practice the speciality concerned ethically and in step with the principles of primary health care.
- 3.3 Demonstrate sufficient understanding of the basic sciences relevant to the concerned speciality.
- 3.4 Identify social, economic, environmental, biological and emotional determinants of health in a given case and take them into account while planning therapeutics, rehabilitative, preventive and promotive measures / strategies.
- 3.5 Diagnose and manage majority of the conditions in the speciality concerned on the basis of the clinical assessment and appropriately selected and conducted investigations.
- 3.6 Plan and advise measures for the prevention and rehabilitation of patients suffering from disease and disability related to the speciality
- 3.7 Demonstrate skills in documentation of individual case details as well as morbidity and mortality data relevant to the assigned situation.
- 3.8 Demonstrate empathy and human approach toward patients and their families and exhibit interpersonal behavior in accordance with the social norms and expectations
- 3.9 Play the assigned role in the implementation of national health programmes, effectively and responsibly.

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

(4) COMPONENTS OF THE POST-GRADUATE CURRICULUM

The major component of the postgraduate curriculum shall be:

Theoretical Knowledge

Practical and clinical skills

Thesis skills

Attitudes including communication skills

Training in research methodology

(5) POST-GRADUATE MEDICAL COURSES UNDER FACULTY OF MEDICINE

5.a. M.D. (DOCTOR OF MEDICINE)

- 1 Anesthesiology
- 2 Aviation Medicine
- 3 Anatomy
- 4 Biochemistry
- 5 Biophysics
- 6 Dermatology, venerology & Leprosy
- 7 Family Medicine
- 8 Forensic Medicine
- 9 General Medicine
- 10 Geriatrics
- 11 Health Administration
- 12 Hospital Administration
- 13 Immuno Heamatology & Blood Transfusion
- 14 Medical Genetics
- 15 Microbiology
- 16 Nuclear Medicine
- 17 Pathology
- 18 Paediatrics
- 19 Pharmacology
- 20 Physical Medicine & Rehabilitation
- 21 Physiology
- 22 Preventive & Social Medicine
- 23 Psychiatry
- 24 Radio-diagnosis
- 25 Radio-therapy
- 26 Rheumatology
- 27 Sports Medicine
- 28 Tropical Medicine
- 29 Tuberculosis & Respiratory Medicine Or Pulmonary Medicine

5.b. M.S (MASTER OF SURGERY)

- 1 General Surgery
- 2 Otorhinolaryngology
- 3 Ophthalmology
- 4 Orthopedics
- 5 Obstetrics & Gynecology

5.c. DIPLOMAS

1. Anaesthesiology (D.A.)
2. Clinical Pathology (D.C.P)
3. Community Medicine (D.C.M.)
4. Dermatology, Venereology and Leprosy (DVD)
5. Forensic Medicine (D.F.M.)
6. Health Education (D.H.E)
7. Health Administration (D.H.A)
8. Immuno-Haematology and Transfusion Medicine (D.I.H.B.T.)
9. Marine Medicine (Dip. M.M.)
10. Microbiology (D. Micro.)
11. Nutrition (D.N.)
12. Obstetrics and Gynaecology (D.G.O)
13. Occupational Health (D.O.H.)
14. Ophthalmology (D.O.M.S.)
15. Orthopaedics (D.Ortho.)
16. Oto-Rhino-Laryngology (D.L.O.)
17. Paediatrics (D.C.H.)
18. Psychiatry (D.P.M.)
19. Public Health (D.P.H.)
20. Radio-diagnosis (D.M.R.D.)
21. Radio Therapy (D.M.R.T.)
22. Radiological Physics (D.R..P.)
23. Sports Medicine (D.S.M.)
24. Tropical Medicine and Health (D.T.M.&H.)
25. Tuberculosis and Chest Diseases (D.T.C.D.)
26. Virology (D.Vir.)

5.d. D.M (DOCTOR OF MEDICINE)

	<i>Prior Requirement</i>
1. Cardiology	MD (Medicine) MD (Paediatrics)
2. Clinical Haematology	MD (Medicine) MD (Pathology) MD (Paediatrics) MD (Biochemistry)
3. Clinical Pharmacology	MD (Pharmacology)
4. Endocrinology	MD (Medicine) MD (Paediatrics) MD (Biochemistry)
5. Immunology	MD (Medicine) MD (Pathology) MD (Microbiology) MD (Paediatrics) MD (Biochemistry) MD (Physiology)
6. Medical Gastro- enterology	MD (Medicine) MD (Paediatrics)
7. Medical Genetics	MD (Medicine) MD (Anatomy) MD (Medical Genetics) MD (Paediatrics) MD (Biochemistry)
8. Medical Oncology	MD (Medicine) MD (Radio-therapy) MD (Paediatrics)
9. Neonatology	MD (Paediatrics)
10.Nephrology	MD (Medicine) MD (Paediatrics)
11.Neurology	MD (Medicine) MD (Paediatrics)
12.Neuro-radiology	MD (Radio-Diagnosis)

5.e. M.Ch. (MASTER OF CHIRURGIE)

	<i>Prior Requirement</i>
1. Cardio Thoacic and Vascular Surgery	MS (General Surgery)
2. Urology	MS (General Surgery)
3. Neuro-Surgery	MS (General Surgery)

4. Paediatric Surgery	MS (General Surgery)
5. Plastic and Reconstructive Surgery	MS (General Surgery)
6. Surgical Gastro-enterology	MS (General Surgery)
7. Surgical oncology	MS (General Surgery) MS (ENT) MS (Orthopaedics) MS (Obst. & Gynae)
8. Endocrine Surgery	MS (General Surgery)
9. Gynaecological oncology	MD/MS (Obst. & Gynae) MS (General Surgery)

5.f. M.Sc. Medical (MASTER OF SCIENCE)

	<i>Prior Requirement</i>
1. M.Sc.(Medical) Anatomy	MBBS Or BSc (Botony/Zoology/Biotechnology)
2. M.Sc (Medical) Physiology	MBBS Or BSc (Botony/Zoology/Biotechnology)
3. M.Sc (Medical) Biochemistry	MBBS Or BSc (Chemistry/Botony/ Zoology/Biotechnology)
4. M.Sc (Medical) Microbiology	MBBS Or BSc (Microbiology/Botony/ Zoology/Biotechnology)
5. M.Sc (Medical) Pharmacology	MBBS Or BSc(Chemistry/Botony/ Zoology/Biotechnology/B.Pharm)

5.g. Ph.D. (DOCTOR OF PHILOSOPHY)

Ph.D. Degree may be instituted in all the subjects wherever recognised post graduate qualification in medical subjects is awarded by concerned Universities subject to fulfillment of the eligibility requirements.

(6) ELIGIBILITY REQUIREMENT FOR :-

6.a. MD/MS/PG DIPLOMA

1. The candidate must possess degree of M.B.B.S. (or its equivalent) of a recognized University for admissions to M.D/MS/PG Diploma Courses.
2. The candidate should have completed such period of post-examination and pre-degree compulsory housemanship or internship or rotating internship which entitles him to the award of the degree of Bachelor of Medicine and Bachelor of Surgery required by and to the satisfaction of the University where applicable.
3. The candidate should have acquired registration as Medical Practitioner according to the rules in force under the Medical Council of India or Maharashtra State Medical Council or any other state council, prior to the registration with this University for the post-graduate degree / diploma courses.
4. The post-graduates students in Faculty of Medicine will not be permitted to register their names simultaneously for Diploma and Degree course of this University or any other University or any other College, e.g. C.P.S. Bombay. He / She may, however, take up examination of NBE, New Delhi.

6.b. DM/M.Ch

A candidate must possess degree of M.D./M.S (or its equivalent recognised degree) in the subject noted against the subjects of D.M./M.ch as *Prior Requirement* for admission to the courses.(5.d,e page 10-12)

6.c. M.Sc. Medical

A candidate must possess degree of MBBS/B.Sc (or its equivalent recognised degree) in the subject noted against the subjects of M.Sc Medical as *Prior Requirement* for admission to the courses.(5.f page 12)

6.d. Ph.D

- 1) Ph.D. by research for medical persons :-

- (a) Registration for Ph.D. in Clinical Sciences will be given only after completing M.D. or M.S. or M.R.C.P. or F.R.C.S. as the case may be.

- (b) Candidate will carry out the research in a department which is recognised for Ph. D.
- (c) All the remaining rules pertaining to Ph.D. of Pravara Institute of Medical Sciences (Deemed University) Loni shall also be applicable to the Ph.D. in the Faculty of Medicine.

2) Ph.D. (Medical) by research for Non-medical person.

The candidate should hold M.Sc. (Medical) by examination and research in the respective branch in which he wants to do Ph.D. (Medical). All the remaining rules pertaining to Ph.D. courses of Pravara Institute of Medical Sciences (Deemed University) Loni will be applicable. However, a candidate with M.Sc. from Science Faculty and having Teaching /Laboratory and Research experience of five years as Lecturer/ Assistant Lecturer / Tutor/ Demonstrator / Biochemist in a Medical College would be eligible for registration for Ph.D. (Medical) in the subject of Bio-Chemistry, Microbiology, Biophysics, Biotechnology, Radiology, under Medical Faculty.

Note: The students shall be admitted to the above courses only after the approval of concerned PG department by Medical Council of India.

(7) NUMBER OF REGISTRATIONS :

- a) The number of registration in a subject for postgraduate courses shall not exceed the number approved by MCI.
- b) The ratio of recognised postgraduate teacher to the number of students to be admitted for the degree and diploma courses shall be 1:1 each for degree and diploma courses, in a unit per year, to the extent that under no circumstances more than two student for degree and one for diploma shall be registered in a unit in one academic year.
- c) The requirement of units and beds shall not apply in the case of Postgraduate Degree or Diploma courses in Basic and Para-clinical subjects. The ratio of the recognised postgraduate teacher to students shall however be maintained at 1:1 both for degree as well as diploma.
- d) The number of students to be admitted in case of postgraduate degree (superspeciality) courses shall be one student per year per recognised postgraduate teacher in a department having a minimum of three faculty members (one professor, one associate professor/reader and one asstt. Professor / lecturer) and 20 beds. If the number of postgraduate teachers in the unit is more than one then the number of students may be increased proportionately but not more than two in a unit per year under any circumstances. For this purpose one student should associate with one postgraduate teacher only.
- e) Unfilled postgraduate seat, shall not be carried forward to the next subsequent academic years.

(8) PERIOD OF TRAINING :

- a) The period of training for M.D./M.S. shall be three years viz.six academic terms after registration as a Post-Graduate Student.
- b) The period of training for diploma courses shall be two-years viz four academic terms after registration as a Post-Graduate Student.
- c) Period of training for D.M. and M.Ch. courses will be three years viz.six academic terms after registration and after obtaining M.D./M.S. in the subject as prior requirement for registration.
- d) For M.Sc. degree for non-medical graduates holding B.Sc./ B.V.Sc./ B.Pharm. degree the period of training would be three and a half years. The first one and a half year being an orientation course in allied subjects like Bio-Physics, Bio-Chemistry, Anatomy, Physiology, Pharmacology and remaining two years for research work..
- e) In the case of students having a recognised two year postgraduate diploma course in the same subject, the period of training, shall be two years.

- f) Migration / transfer of students undergoing any postgraduate course (degree, diploma) shall not be permitted.
- g) The period of training for Ph.D. shall be two years for candidates who possess M.D./M.S./P.G. diploma and three years for candidates with M.Sc. (Medical subjects).

(9) TRAINING FACILITIES

9.1. Staff faculty:

- a) A clinical department or its unit training candidates for broad or superspecialities, shall have a minimum of three fulltime faculty members belonging to the concerned disciplines of whom one shall be professor, one Associate Professor / Reader and one Assistant Professor / Lecturer, possessing the qualification and experience for prescribed by the MCI. Second or subsequent unit may be headed by an Associate Professor.
- b) In each department training candidates for superspecialities, there shall be a minimum of three faculty members with requisite postgraduate qualification and experience – one Professor, one Associate Professor / Reader and one Assistant Professor / Lecturer, with at least two of them holding the degrees of D.M /M.Ch. in the concerned discipline. Of these faculty members only those who possess eight years teaching experience out of which at least five years teaching experience as Assistant Professor / Lecturer gained after obtaining the higher speciality degree shall be recognised as post graduate teachers.

9.2. Minimum requirements for a postgraduate institution:

- a) An institution conducting both undergraduate & postgraduate teaching shall satisfy the minimum requirements for undergraduate training as prescribed by the MCI.
- b) Provide facilities consistent with the all round training including training in basic medical sciences and other departments related to the subject of training.
- c) Have as many autopsies, biopsies and cytopsies as possible for teaching purposes.

9.3. Bed Strength in the clinical Departments:

A department shall have not less than 60 (sixty) beds each for General Medicine, General Surgery, Obstetrics and Gynaecology, 30 (thirty) beds each for others in the case of M.D / M.S. and PG diploma and 20 (twenty) beds each in the case of D.M / M.Ch.

9.4. Out – patient Department:

There shall be adequate space and sufficient number of examination cubicles available in the out – patient department. Beside the general out – patient services, specialty clinics shall also be available for the training of post-graduate students in the relevant broad and super speciality.

9.5. Laboratory Facilities

The institution shall have adequate laboratory facilities for the training of the post graduate students, and such laboratories shall provide all the investigative facilities required and shall be regularly updated, keeping in view the advancement of knowledge and technology and research requirements, and for training of students in non- clinical departments, proper and contemporary laboratory facilities shall be made available.

9.6. Equipment

The department shall have adequate number of all equipments including the latest ones necessary for training and as may be prescribed by the MCI for each specialty from time to time.

(10) TRAINING PROGRAMME :

10.1. All candidates joining the postgraduate training programme shall work as full time residents during the period of training; attending not less than 80% (Eighty percent)of the training or clinical work during each calendar year; and will be given full time responsibility, assignments and participation in all facets of the educational process.

10.2. a) Every institution undertaking postgraduate training programme shall set up an Academic Cell or a Curriculum Committee, under the Chairmanship of a senior faculty member, which shall work out the details of the training programme in each specialty in consultation with other departmental faculty and also co-ordinate and monitor the implementation of these training programmes

b) The training programmes shall be updated as and when required. The structured training Programme shall be written up and strictly followed to enable the examiners to determine the training undergone by the candidates and the Medical Council of India Inspectors to assess the same at the time of inspection.

- 10.3. a) Post-Graduate students shall maintain a record (log) book of the work carried out by them, and the training programme undergone during the period of training including details of surgical operations assisted or done independently.
- b) The record books shall be checked, assessed, certified and signed by the Faculty members imparting the training.
- 10.4. During the training for the Degrees /Diplomas to be awarded in clinical disciplines, there shall be proper training in the basic medical sciences related to the disciplines concerned; during the training for the degrees to be awarded in basic medical sciences, there shall be training in applied aspects of the subject and as well as in allied subjects related to the disciplines concerned. In all the Post-Graduate training programmes, both in clinical and basic medical sciences, emphasis is to be laid on Preventive and Social aspects and Emergency Care. Facilities for autopsies, biopsies, cytopsies, endoscopic and imaging etc. also will have to be made available for training purposes.
- 10.5. The Post-Graduate students shall be required to participate in the teaching and training programmes of the undergraduate students and interns.
- 10.6.(a) Training in Medical Audit, Management, health economics, health information system, basic of statistics, exposure to human behavior studies, knowledge of pharmaco-economics and introduction to non-linear mathematics, I.T. and computer shall be imparted to the Post-Graduate students.
- (b) All Post-graduate students will be required to work in causality department to get training in emergency medicine / care and emergency procedures in the allied subjects. The period of such training will be minimum one month and the record of events during this period will be maintained in the Log book/work book.
- 10.7.a) Every candidate 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 dissertation / thesis.
- b) Work for writing the dissertation / thesis 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 sciences and the manner of identifying and consulting available literature. Dissertation / thesis shall be submitted to the university at least six months before the theoretical and clinical / practical examination.

- c) The thesis / dissertation is compulsory for all candidates registered for M.D. / M.S / M.Sc.(Med.) / Ph.D. (Med.) except PG diploma and should include candidates own work under a supervisor qualified for the purpose and recognised as a Post- Graduate teacher by the University.
- d) The subject of the dissertation / thesis along with a synopsis (not more than 200 words) countersigned by the guide, Head of the Department and the Head of the Institution should be submitted to the University within four months of registration along with the eligibility form. If student fails to submit the synopsis within specified time his/her admission may stand to cancellation
- e) The candidate must ensure that work in similar subject and plan has not been submitted by any other student before.
- f) All dissertation / thesis topics will require clearance of institutional ethical and research committee before submission to university.
- g) If there is a minor change in the topic of dissertation the same be allowed at any time with the approval of Research Committee. However if there is a major change, the student may be allowed to change the topic without having to under go additional training provided there is an interval of three clear terms between the date of application and the date of examination.

10.8. Implementation of training programmes for the award of various postgraduate degrees and diplomas shall include the following

- a) Doctor of Medicine (MD), Master of Surgery (MS) & PG diplomas:
 - i) Basic medical sciences:
Lectures, seminars, journal club, group discussion, participation in laboratory & experimental work, & involvement in research studies in the concerned specialty and exposure to the applied aspects of the subjects relevant to clinical specialties.
 - ii) Clinical Disciplines:
In – service training, with the students being given graded responsibility in the management & treatment of patients entrusted to their care, participation in seminars, journal clubs, group discussions, clinical meetings, grand rounds, and clinico-

pathological conferences, practical training in diagnosis and medical and surgical treatment, training in the basic medical sciences, as well as in allied clinical specialties.

b) Doctor of Medicine (DM) / Master of Chirurgiae (M.Ch.)

The training programme shall be on the same pattern as for M.D / M.S. in clinical disciplines, practical training including advance diagnostic, therapeutic and laboratory techniques, relevant to the subject of specialization. For M.Ch. candidates, there shall be participation in surgical operations.

c) M.Sc (Medical)

The training programme shall be on the same pattern as for M.D Lectures, seminars, journal club, group discussion, participation in laboratory & experimental work, & involvement in research studies in the concerned specialty and exposure to the applied aspects of the subjects relevant to clinical specialties.

10.9. The Dean/ Principal will submit to the University the Post-Graduate programme of various departments which shall be reviewed by the Board of Studies in the subject concerned. The Board of Studies may address the Academic Council regarding improvements in the course of study and its implementation.

10.10. During the course of studies, the department should arrange the training in such a way that the students should see a large number of clinical cases, perform laboratory work and operative work so that at the end of the training period the he/she has acquires the knowledge and skills expected from a specialist in his/her specialty.

10.11 Similarly, every student shall have to present his/her work done during the previous year before the Review Committee set up by the University. In case the progress of the student is not satisfactory, his/her term/ terms are likely to be cancelled.

10.12 A candidate should submit six monthly progress report of his / her thesis to the university through the Head of Institution.

10.13. If the progress of a candidate's work including the thesis work is not satisfactory, the University on recommendation of Head of the Institution and Dean of Faculty of

Medicine or Review committee may not grant that particular term and the period of training will be extended.

(11) GRANTING OF TERMS:

- 11.1. A student will be granted a term provided he puts in 80% attendance during the term. He / she can avail leave upto eight days in a term.
- 11.2. The University will not allow a student to continue the Post-Graduate course on the basis of his past registration in any other subject. A post registration implies the completion of terms for that respective subject only. The past registration should be treated as lapsed, if the student does not complete the course. Such a student will be advised to register his name afresh. In such case, the student will not get any concession in the terms. As regards the dissertation subject if a guide of the student is prepared to guide him on his previous topic, he/she be permitted to do the fresh registration with previous topic.
- 11.3. In case a candidate registers his name for the Post-Graduate Degree / Diploma Course and then leaves the course on medical grounds, a six months gap be allowed and in such case, student may be permitted to continue his studies, on compassionate grounds on the recommendation of the Guiding Teacher and the Dean of Faculty.
- 11.4. Before cancellation of registration on account of the adverse progress, report of indiscipline etc., the University should get recommendation of guiding teacher, duly endorsed by the Head of the Department and the Dean/ Principal of the College and the Dean of the Faculty.
- 11.5. The student shall publish at least one research paper based on his work in reputed National/International Journal before he/she submits his/her dissertation for award of MD/MS/M.Ch./M.Sc. Degree or he/she should present his/her research works in at least two state/national level conferences before submission of dissertation for award of MD/MS/M.Ch./M.Sc. Degree. The list of national / international conferences where papers can be presented shall be prepared & approved by the Academic Council.

(12) POST-GRADUATE TEACHER:

- 12.1. A teacher in a Medical College/Institution who possess a total of six years teaching experience, out of which at least five years he should have served as Assistant Professor/

Lecturer gained after obtaining P.G. Degree shall be recognised as Post-Graduate Teacher of Pravara Institute of Medical Sciences (Deemed University) Loni.

12.2. Notwithstanding the teaching experience prescribed in the teaching eligibility qualifications, in exceptional cases where a candidate has worked in a Recognised Research Institution or a Medical College and has produced and published original research work of a very high quality recognised as original scientific contribution at a national and/or international level may also be considered and such research experience may be counted as equivalent to teaching experience provided other conditions are fulfilled.

12.3. If a Post-Graduate teacher guide is transferred or retires within three months of date for submission of thesis to university (5th & 6th term), he will continue to guide the P.G student and also certify the thesis. However, the matter is required to be informed to the university.

12.4. If a Post-Graduate teacher guide is transferred or retires during first to fourth term, the P.G student will have to be allotted a new guide. To maintain the teacher student ratio at 1:1, the new guide will not register a new student in the next term or the next two terms as may be applicable.

12.5. A Post-Graduate teacher guiding Ph.D. thesis can continue to guide the research work of a candidate up to the age of 70 years. Other Post-graduate teachers shall cease to be Post-Graduate teachers on attaining the age of sixty-five.

(13) EXAMINATION

13.1 Thesis / Dissertation For M.D. / M.S.

- a) 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, and on the acceptance of the thesis by two examiners, the candidate shall appear for the final examination.
- b) In the thesis, the candidate will not disclose his identity or identity of the guide or institution in any way. The candidate shall submit his /her dissertation / thesis under the permanent Registration number allotted to him by the institution.
- c) If a student has submitted his examination form and also his thesis previously, he will be permitted to take the examination within period of four years any time there after provided

the thesis has been accepted. The terms satisfactorily kept by him however are valid, only for a period of four years subsequent to submission of his thesis dissertation after which he will have to undergo Post-Graduate training again for four terms to be eligible for appearing for the theory, clinical and practical examinations.

13.2 Dissertation / Thesis for M.Sc. (Medical) and Ph.D. (Medical) :

Rules of Pravara Institute of Medical Sciences regarding /dissertation thesis for M.Sc. and Ph.D. as in other faculties will be applicable.

13.3 Theory Examination:

- a) There shall be four theory papers at M.D. / M.S. / D.M / M.Ch. /M.Sc examinations, each of 100 marks and three hours duration.
- b) There shall be three theory papers in P.G. Diploma examinations, each of 100 marks and three hours duration.
- c) Out of this one paper shall be of basic Medical Sciences and one shall be of recent advances
- d) The theory examinations shall be held sufficiently earlier than the clinical and practical examination, so that the answer books can be assessed and evaluated before the start of the Clinical / Practical and oral examinations.
- e) As per instructions given by MCI, the university may introduce MCQs in examination as one of the theory papers.

(f) Clinical, Oral and Practical Examinations:

The clinical, oral and practical examination shall be consisting of long, short cases, instruments, X-rays, specimen spots, laboratory work etc. There will be 400 marks, distributed in clinical, oral and practicals in M.D. / M.S. / M.Sc./ D. M. / M.Ch. examinations and 300 marks for Diploma Examinations.

(g) Heads and Standard of Passing:

1.Heads of passing:

There will be two heads of passing. Theory shall form one head of passing and Clinical, Oral and practicals taken together shall form the second head of passing. A candidate

must pass in both the heads of passing at the same attempt. Candidates passing in one head and failing to pass in the other head will be declared failed.

2. Standard of Passing:

To pass the examination, a candidate must obtain,

- (a) 50% of the total marks in theory
- (b) 50% of total marks in clinical, oral and practical examination taken together.
- (c) In any of the papers in the theory examination he must not obtain less than 40% marks to be declared successful.

3. Grand total is not a head of passing.

(14) Guide lines on appointment of Post-graduate Examiners:

- 14.1. Post-graduate examiner will full fill all the requirements as laid down by Medical Council of India. He / she should have eight years teaching experience as lecturer / associate professor.
- 14.2. There shall be at least four examiners in each subject i.e two externals and two internals. The external examiners should be from the recognised university of which one will be from out side the state and the other from other universities of Maharashtra state.
- 14.3. Under exceptional circumstances, examination may be held with three examiners provided two of them are external and justified approval is obtained from MCI. The result in such case will be declared with the approval of MCI.
- 14.4. External examiner may be appointed for not more than three years. However, he / she may be reappointed after an interval of two years.
- 14.5. Out of the two internal examiners, one shall be Professor & HOD or HOD. The other internal may rotate after an interval of two years.
- 14.6. Internal examiner shall not accept external examinership for a college from which external examiner is appointed in his subject.
- 14.7. Same set of examiners will be responsible for written, practical or part of examination.
- 14.8. There shall be a chairman of the Board of paper – setters who shall be external examiner and shall moderate the question papers.

14.9. Where there are more than one examination centers, external examiners for all the centers shall remain the same.

14.10. For more than one center, university may appoint an independent coordinator who shall supervise and co-ordinate the examination on behalf of the university.

Circular No :
Date :

Registrar
P.I.M.S.
Loni

M.D./M.S./M.Ch. (Papers & Practicals)

(i) M.D. Branch I (General Medicine)-

Paper I - Cardiovascular system, Haemopoetic System, Collagen Diseases and Rheumatology, Recent Advances.

Paper II - Respiratory System including Tuberculosis, Renal Diseases, Therapeutics, Paediatrics, Genetics.

Paper III -Gastro-intestinal System including Hepatobiliary System, Metabolic Diseases, Endocrine Nutritional Disorders.

Paper IV - Central Nervous System, Infectious and Tropical Diseases, Psychiatry, Dermatology.

(ii) M.S. Branch II (Obstetrics and Gynaecology)-

Paper I - Obstetrics including the diseases of the New born.

Paper II- Gynaecology, Gynaecological Pathology and Operative Gynaecology.

Paper III- Medical and Surgical Diseases, Complication in Obstetrics and Gynaecology.

Paper IV-Social Obstetrics and Gynaecology including Maternal Child Health and Family Planning and Recent Advances.

(iii) M.D. Branch III (Pathology)-

Paper I- General Pathology including Recent Advances.

Paper II- Systematic Pathology including Recent Advances.

Paper III- Clinical Microbiology, Clinical Pathology, Virology Chemical Pathology, including Recent Advances.

Paper IV – Hematology, Blood transfusion and Recent Advances.

(iv) M.D. Branch III-A (Microbiology)-

Paper I - General Microbiology, including Recent Advances, Clinical Pathology, Principles of General Pathology.

Paper II -Bacteriology including Recent Advances.

Paper III - Immunology and Paracytology including Recent Advances.

Paper IV - Virology and Mycology including Recent Advances.

(v) M.D. Branch IV (Pharmacology)-

Paper I - Experimental Aspects of Pharmacology and Toxicology.

Paper II - Theoretical Aspects of Pharmacology and Toxicology.

Paper III - Applied Pharmacology.

Paper IV - Recent Advances in Pharmacology and Toxicology.

(vi) M.D. Branch V (Preventive and Social Medicine)-

Paper I - Theory and Practice of Preventive and Social Medicine(including Social Science,

Health Education, Genetics, Public Health Administration Medical/Health Care, Maternal and Child Health Rehabilitation, Public Health Chemistry, etc.)

Paper II-Theory and Practice of Preventive and Social Medicine (including Biostatistics, Epidemiological Techniques, Research Methodology, Vital Statistics, Demographic Techniques, Nutrition, etc.)

Paper III-Theory and Practice of Preventive and Social Medicine(including Environmental Health, Occupational Health, Industrial Toxicology and Occupational Physiology, Parasitology. Entomology, Public Health Laboratory Practices.)

Paper IV -Theory and Practice of Preventive and Social Medicine (including General Medicine applied to the Field of Public Health, Communicable and Non-communicable Diseases, etc.)

(vii) M.D. Branch VI (Paediatrics)-

Paper I - Basic Sciences, Anatomy, Physiology, Pathology, Pharmacology as related to Paediatrics, Neonatology and Developmental Paediatrics, including adolescence medicine.

Paper II -Diseases of Cardiovascular systems Respiratory, Gastro-Intestinal, Urogenital Systems and infectious diseases.

Paper III -Diseases of Nervous Hematological Systems, Oncology, Immunology, Endocrine Metabolic Genetic Diseases.

Paper IV - Preventive and Social Paediatrics, Paediatric Psychiatric, Dermatological, Ophthalmic, ENT and Miscellaneous Diseases, Paediatric Surgery and Recent Advances in Paediatrics Nutrition.

(viii) M.D. Branch VII (Radio-Diagnosis)-

Paper I - Applied Basic Sciences including Radiology as applicable to Radio Diagnosis.

Paper II-Radio Diagnosis including Radiographic Techniques.

Paper III- Radio Diagnosis including Recent Advances in Radio Diagnosis.

Paper IV- General Medicine and General Surgery as applicable to Radio-Diagnosis.

(ix) M.D. Branch VII (Anesthesiology)-

Paper I - Basic Science Techniques is Anesthesiology Recent Advances in Anesthesiology as applied to Anesthesiology.

Paper II- Anesthesiology including Techniques.

Paper III- Anesthesiology including Recent Advances.

Paper IV - Medicine and Surgery as applied to Anesthesiology.

(x) M.D. Branch IX (Tuberculosis and Respiratory Diseases)-

Paper I - Basic Sciences(Applied Anatomy, Physiology, Pharmacology, Bacteriology and Pathology as related to Tuberculosis and Respiratory Diseases).

Paper II - Tuberculosis (Respiratory) and Extra Pulmonary Tuberculosis.

Paper III - Non- Tubercular Respiratory Diseases.

Paper IV - General and Thoracic Surgery and General Medicine as related to Respiratory Diseases and Recent advances, including critical cases.

(xi) M.D. Branch X (Physiology)-

Paper I - General and Cellular Physiology, Applied Bio-Chemistry, Bio-physics and Biostatistics.

Paper II - Advanced Systemic Physiology, All systems including exercise Physiology and Nutrition.

Paper III - History of Physiology, Comparative Physiology, Applied Physiology.

Paper IV - Recent Advances in Physiology.

(xiii) M.D. Branch XI (Psychiatry)-

Paper I - Neurology, Neuroanatomy, Neurophysiology and General Medicine, viz. Endocrinology, Toxicology and Genetics.

Paper II - General and Child Psychology including Statistic, Psycho-diagnostics, and Social, Preventive and Forensic Psychiatry.

Paper III - Psychiatric Disorders (Adult) and their treatment.

Paper IV - Child and Adolescence Psychiatry, Recent Advances in Psychiatry.

(xiii) M.D. Branch XII (Dermatology, Venereology and Leprosy)-

Paper I - Applied Basic Science in relation to Dermatology, Venereology and Leprosy.

Paper II- Skin Diseases including Therapy and Skin Surgery.

Paper III- Venereology and Leprosy.

Paper IV - Internal Medicine as related to Dermatology, Venereology and Leprosy.

(xiv) M.D. Branch XIII (Biochemistry)-

Paper I - General Biochemistry, Physical Chemistry, Cell and Biophysics, Biostatistics.

Paper II - Metabolism and Nutrition.

Paper III - Medical Biochemistry, Metabolism and Genetics.

Paper IV- Molecular Basis of Human Diseases, Recent Advances in Biochemistry, Biotechnology.

(xv) M.D. Branch XIV (Hospital Administration)-

Paper I - General Administration and Management in Hospital.

Paper II- Health Administration and Medical Care.

Paper III- Hospital Administration and Hospital Planning.

Paper IV - Administration of Clinical and Non-clinical services and Administration Problems.

(xvi) M.D. Branch XV (Forensic Medicine)-

Paper I - Basic Science as related to Forensic Medicine and Toxicology.

Paper II- Forensic Psychiatry, Medical Jurisprudences, Forensic Sciences.

Paper III- Forensic Medicine.

Paper IV- Toxicology, Recent advances in Forensic Medicine and Toxicology.

(xvii) M.D. Branch XVI (Physical Medicine and Rehabilitation)-

Paper I - Basic Medical Sciences and applied to Physical Medicine and Rehabilitation.

Paper II- Principles and Practice of Physical Medicine and Rehabilitation.

Paper III- Principal and Practice of Physical Medicine and Rehabilitation.

Paper IV- Orthopedics, Surgery and Medicine as applied to Physical Medicine and Rehabilitation.

(xviii) M.D. Branch XVII (Medical Genetics)-

Paper I - Basic Sciences as applied to Medical Genetics.

Paper II- Principles and Practice of Medical Genetics.

Paper III- Principles and Practice of Medical Genetics.

Paper IV- Applied Medical Genetics and Recent Advances in Medical Genetics.

(xix) M.D. Branch XVIII (Accident and Emergency Medicine)-

Paper I - Physiology, Pathology and Pharmacology as applied to emergency medicine.

Paper II- Cardiorespiratory and medical emergencies.

Paper III- Surgical emergencies including Trauma.

Paper IV - Obstetrics, Ophthalmic, Toxicological and other emergencies.

(xx) D.M. Branch I (Cardiology)-

Paper I - Anatomy, Physiology, Pathology and Embryology.

Paper II- Cognition Heart Diseases.

Paper III- Acquired Heart Disease.

Paper IV- Recent advances in Cardiology.

(xxi) D.M. Branch II (Neurology)-

Paper I - Anatomy Physiology, Pathology, Embryology as related to Neurology.

Paper II- Adult Neurology.

Paper III- Paediatric Neurology and General Neurology.

Paper IV- Recent advances in Neurology.

(xxii) D.M. Branch III (Nephrology)-

Paper I - Basic Medical Sciences as related to Nephrology.

Paper II- Nephrology.

Paper III- Medicine and Surgery as related to Recent advances, Nephrology.

Paper IV- Recent advances in Nephrology.

(xxiii) D.M. Branch IV (Gastro-Enterology)

Paper I - Basic Science as related to Gastro-Enterology.

Paper II- Gastro-enterology.

Paper III- General Medicine and General Surgery as related to Gastro-enterology and Recent Advances in Gastro – Enterology.

Paper IV- Recent advances in Gastro-enterology.

(xxiv) D.M. Branch V (Endocrinology)-

Paper I - Basic Sciences as related to Endocrinology.

Paper II- Endocrinology.

Paper III- Endocrinology as applied to Medicine, Surgery and Obstetrics and Gynaecology

Paper IV- Recent advances in Endocrinology.

(xxv) D.M. Branch VI (Clinical Haematology)-

Paper I - Basic Science as related to Clinical Haematology.

Paper II- Haematology and Blood Transfusion.

Paper III- Medicine and Pathology as applied to Clinical Haematology.

Paper IV - Recent advances in Clinical Haematology.

(xxvi) D.M. Branch VII (Clinical, Pharmacology and Therapeutics)-

Paper I - Pharmacokinetics and Preclinical Evaluation of New Drugs.

Paper II- Clinical Evaluation of Drugs.

Paper III- Pharmacological Principles of Therapeutics, Systematic and Clinical Pharmacology.

Paper IV - Recent advances in Clinical Pharmacology.

(xxvii) D.M. Branch VIII (Neonatology)-

Paper I - Basic Sciences as related to Neonatology.

Paper II- Neonatology.

Paper III- Neonatology as related to Medicine, Surgery and Obstetrics and Gynaecology.

Paper IV - Recent Advances in Neonatology.

(xxviii) M.S. Branch I (General Surgery)-

Paper I - Basic Medical Sciences as related to General Surgery.

Paper II- General Surgery I.

Paper III- General Surgery II.

Paper IV- E.N.T. Obstetrics and Gynaecology, Orthopaedics, Ophthalmology, Neurosurgery, Cardio-vascular Surgery as related to General Surgery and Recent Advances in General Surgery.

(xxix) M.S. Branch II (E.N.T.)-

Paper I - Basic Sciences including Pharmacology in relation to E.N.T.

Paper II- Diseases of Ear.

Paper III- Diseases of Nose and Paranasal Sinuses.

Paper IV - Diseases of Throat including Oesophagus and Trechaobronchial Tree and Recent Advances in E.N.T.

(xxx) M.S. Branch III (Ophthalmology)-

Paper I - Basic Science as related to Ophthalmology.

Paper II- Ophthalmic Medicine and Surgery I.

Paper III - Ophthalmic Medicine and Surgery II.

Paper IV - Ophthalmology as related to Surgery, Dentistry, E.N.T., and Recent Advances in Ophthalmology.

(xxxii) M.S. Branch IV (Orthopedics)-

Paper I - Applied Basic Sciences as applied to Orthopaedics.

Paper II- Orthopaedics including Operative Surgery.

Paper III- Fracture and Joint Injury/ Injury of Joint.

Paper IV- Orthopaedics as related to General Surgery, Rehabilitation and Recent Advances in Orthopaedics.

(xxxiii) M.D. Branch V (Anatomy)-

Paper I - Human Gross Anatomy.

Paper II- Human Anatomy including Histology, Embryology and History of Anatomy.

Paper III- Nemoanatomy, Genetics and Physical Anthropology.

Paper IV- Applied Anatomy and Recent Advances in Anatomy.

(xxxiiii) M.Ch. Branch I (Plastic Surgery)-

Paper I - Plastic Surgery-Basic Sciences.

Paper II- Plastic Surgery-General I.

Paper III- Plastic Surgery-Regional II.

Paper IV- Recent Advances in Plastic Surgery.

(xxxiv) M.Ch. Branch II (Cardio-Thoracic Surgery)-

Paper I - Surgical Anatomy, Physiology, Pathology and Bacteriology.

Paper II- Cardio-Vascular Surgery.

Paper III- Thoracic Surgery.

Paper IV- Recent Advances in Cardio-Thoracic Surgery.

(xxxv) M.Ch. Branch III (Neuro-Surgery)-

Paper I - Neuro-Surgery-Basic Sciences.

Paper II- Neuro-Surgery.

Paper III- Neuro-Surgery-special branches like Paediatrics, Neurosurgery and Sterotaxic Neuro-surgery.

Paper IV- Recent Advances in Neuro-surgery.

(xxxvi) M.Ch. Branch IV (Urology)-

Paper I - Basic Sciences as related to Urology.

Paper II- Urology.

Paper III- Paediatric Urology, Medicine, Surgery and Obstetrics and Gynaecology as related to Urology.

Paper IV- Recent Advances in Urology.

(xxxvii) M.Ch. Branch V (Gastro-Enterology)(Surgical)-

Paper I - Basic Sciences as related to Gastro-Enterology (Surgical)

Paper II- Surgical Gastro-Enterology.

Paper III- General Surgery, Thoracic Surgery and General Medicine as related to Surgical Gastro-Enterology and Recent Advances.

Paper IV- Recent Advances in Surgical Gastro-Enterology.

(xxix) M.Ch. Branch VI (Pediatric Surgery)-

Paper I - Basic Sciences as related to Pediatric Surgery.

Paper II- Pediatric Surgery.

Paper III- General Surgery and Pediatric as related to Pediatric Surgery.

Paper IV- Recent Advances in Pediatrics Surgery.

(DI) Diploma in Anesthesia (D.A.)-

Paper I - Basic Sciences in relation to Anesthesiology.

Paper II- Anesthesiology Techniques & Recent Advances I.

Paper III- Anesthesiology Techniques & Recent Advances II.

(DII) Diploma in Medical Radiological Diagnosis (D.M.R.D)

Paper I - Physics as applied to Medical Radiology.

Paper II- Diagnostic Radiology.

Paper III- Radiographic and Radiological Techniques & Recent Advances.

(DIII) Diploma in Gynaecology and Obstetrics (D.G.O.)-

Paper I - Obstetrics.

Paper II- Operative Obstetric and Gynaecology.

Paper III- Anatomy and Pathology in Gynaecology and Obstetrics, Recent Advances.

(DIV) Diploma in Ophthalmic Medicine and Surgery (D.O.M.S.)-

Paper I - Anatomy, Physiology, Optics, Bacteriology and Pathology of the Eye.

Paper II- Ophthalmic Medicine and Surgery.

Paper III- The Relation of Ophthalmology to General Medicine. Recent Advances in Ophthalmology.

(DV) Diploma in Psychological Medicine (D.P.M.)-

Paper I - (a) General, Social and Child Psychology.

(b) Psychometric /or diseases

(c) Psychopathology, Psychotherapy, and. Adult Psychiatric Disorders.

Paper II- (a) Psychosomatic Medicine, Personality Disorders, Child Psychiatry.

(b) Preventive Psychiatry and Legal Aspects of Psychiatry.

(c) Therapeutics of Psychiatric Disorders.

Paper III- (a) Neuro-Anatomy and Neuro-physiology.

(b) Neurology.

(c) General Medicine and Medical Genetics related to Psychiatry.

(DVI) Diploma in Child Health (D.C.H.)-

Paper I - Applied Anatomy, Physiology and Pathology related to Pediatrics, Growth and Development, Neonatology including Prematurely and Associated Problems.

Paper II & III- Diseases of Infancy and Child-hood including Metabolic and Nutritional distribution of these needed Problems, Pediatric Surgery. as applicable to Paediatrician, Recent Advances in Pediatric sciences.

(DVII) Diploma in Otto-Rhino Laryngology (D.L.O.)-

Paper I -Applied Anatomy, Physiology and Pathology as related to Ear, Nose and Throat Diseases.

Paper II- Diseases of Ear, Nose and Throat I.

Paper III- Diseases of Ear, Nose and Throat. Recent Advances in E.N.T. Surgery II

(DVIII) Diploma in Orthopedics (D.Ortho.)-

Paper I - Basic Science, General Surgery and General Medicine as related to Orthopedics.

Paper II- Injuries of bones and joints.

Paper III- Diseases of bones and joints & Recent Advances in Orthopedic sciences.

(DIX) Diploma in Family Planning (D.F.P.)-

Paper I - Applied Anatomy, Physiology and Pharmacology of Reproductive Biology.

Paper II- Contraceptive Technology.

Paper III- Demography and Maternal and Child Health, Recent Advances in Family Planning.

(DX) Diploma in Maternity and Child Health (D.M.C.H.)-

Paper I - Applied Anatomy, Physiology and Pharmacology of Reproductive Biology.

Paper II - Abnormality of Pregnancy, Labor & Childhood.

Paper III- Demography, Preventive Obstetrics, Gynecology and Pediatrics.

(DXI) Diploma in Clinical Pathology (D.C.P.)-

Paper I - Clinical Pathology, Chemical Pathology and Clinical Microbiology.

Paper II- Hematology, Blood Transfusiology and Immunology.

Paper III- Morbid Anatomy and Histopathology. Recent Advances in Pathology.

(DXII) Diploma in Medical Virology (D.M.V.)-

Paper I - General Virology, Immunology and Pathogenesis, Pathology of Virus diseases.

Paper II- Systemic Virology, Care of Laboratory Animals, Diagnostic Virology and Rickettsiology, Molecular Biology.

Paper III- Epidemiology and Biostatistics, Medical Entomology. Viral Ecology, Care of Laboratory Animal, Recent Advances in medical virology.

(DXIII) Diploma in Hospital Administration (D.H.A.)-

Paper I - General Administration, Public Health and Medical Care.

Paper II- Epidemiology and Biostatistics.

Paper III- Hospital Planning organisation, Diagnostic and Therapeutic services and Hospital Supportive Services and Administrative Procedures:

(a) Occupational Health.

(b) Applied Physiology.

(c) Problems of disablement.

(d) Environmental Sanitation.

(e) Public Health Laboratory Practices.

(f) Health Education. Recent Advances in Hospital administration

(DXIV) Diploma in Venereology and Dermatology (D.V.D.)-

Paper I - Basic Sciences (Anatomy, Physiology, Pathology and Bacteriology of Skin and Genitourinary Tract. Preventive Aspects as applied to Venereology and Dermatology).

Paper II- Venereal Diseases including general diseases.

Paper III- Skin Diseases. Recent Advances in venereology and dermatology

(DXV) Diploma in Tuberculosis Chest Diseases (D. T. C.D.)-

Paper I - Tuberculosis in general including epidemiology, Prevention, Pathology and bacteriology.

Paper II- Tuberculosis, Pulmonary and Extra-pulmonary, non-tuberculosis disease of Chest.

Paper III- General topics in chest diseases including general medicine related to chest diseases:

- (a) Industrial Health Hazards.
- (b) Occupational Diseases.
- (c) Practice of Industrial Medicine.
- (d) Safety in Industry.
- (e) Generics. Recent Advances Genetics.

(DXVI) Diploma in Public Health (D.P.H.)-

Paper I - (a) Biostatistics.

- (b) Principles of dietetics and nutrition.
- (c) Nutrition surveys and malnutrition.
- (d) Microbiology and Medical Entomology.
- (e) Genetics.

Paper II- (a) Public Health Administration and Laws.

- (b) Material and Child Health.
- (c) Sociology, Psychology and Social Anthropology.
- (d) Communicable and non-communicable diseases including Epidemiology and control.
- (e) General Medicine as related to Public Health.

Paper III- Diseases of Infancy and childhood, Child Psychology and Psychiatry, Genetics, Social and Preventive Pediatrics.

(DXVII) Diploma in Industrial Health (D.I.H.)-

Paper I - (a) Biostatistics and Nutrition.

- (b) Public Health Administration.
- (c) Industrial Law, Social Security and Labour Relation.
- (d) Occupational Health Service.

- Paper II- (a) Environmental Sanitation and Industrial Health.
 (b) Industrial Psychology.
 (c) International Health and Labour Organisations.
 (d) Social Science.

- Paper III- (a) Epidemiology and control of Communicable and Non-communicable diseases.
 (b) Industrial Toxicology.
 (c) Applied Physiology.
 (d) Public Health Chemistry.
 (e) Health Education.

(12) Scheme of Practical Examination

The distribution of practical marks shall be as follows

(a) M.D.: (General Medicine)

1.	2 Long cases, (100 marks each)	:	200 marks
2.	2 short cases (50 marks each)	:	100 marks
3.	Oral / Viva voce examination	:	50 marks
4.	Spots, CT Scan, USG, ECHO, MRI, ECG, X-ray, Lab report, Instrument slides etc	:	50 marks

	Total	:	400 marks

	Theory + Practicals Grand Total	:	800 marks

(b) M.D.: (Paeditrics)

1.	1 Long case	:	100 marks
2.	2 Short cases (50 marks each)	:	100 marks
3.	Case records	:	100 marks
4.	Viva voce examination(4 tables) (ECG, Drugs, Instruments, X-rays/CT	:	100 marks

	Total	:	400 marks

	Theory + Practical Grand Total	:	800 marks

(c) M.D.: (Psychiatry)

- | | | |
|-------------------------------|------|------------|
| 1. Long Case | :one | : 75 marks |
| 2. Neurology Case | :one | : 75 marks |
| 3. Short Case | :one | : 50 marks |
| 4. Drugs | | : 30 marks |
| 5. Psychological Tests | | : 30 marks |
| 6. Investigations | | : 30 marks |
| 7. Community Psychiatry | | : 30 marks |
| 8. Viva voce examination Oral | | : 80 marks |

Total : 400 marks

Theory + Practical Grand Total : 800 marks

(d) M.D. Branch (Dermatology)

- | | | | |
|----|---------------------------------|---|------------|
| 1) | Long case (1) | : | 100 marks |
| 2) | Short cases (2) (50 marks each) | : | 100 marks |
| 3) | Spots (10) (10 marks each) | : | 100 marks |
| 4) | Oral (viva voce) | : | 50 marks |
| 5) | HP slides - 20 | } | : 50 marks |
| | Staining - 10 | | |
| | Pharmacy - 10 | | |
| | Instrument - 05 | | |
| | Drugs, X-ray- 05 | | |

Total : 400 marks

Theory + Practical Grand Total : 800 marks

(e) M.D.: (Tuberculosis and Respiratory Diseases)

- | | | |
|----|---|-------------|
| 1. | One long case | : 200 marks |
| 2. | 2 Short cases (50 marks each) | : 100 marks |
| 3. | Oral (Viva voce) | : 50 marks |
| 4. | X-ray (Plain,contrast, CT/MRI) | : 20 marks |
| 5. | ECG/PET/ABG/Instruments/
Specimen/ Slide/drugs | : 30 marks |

Total : 400 marks

Theory + Practical Grand Total : 800 marks

(f) D.M.: (Cardiology)

- 1) Long Case 1 : 100 marks
- 2) Short Cases 2 (50 each) : 100 marks
- 3) Viva Voce examination / Oral : 100 marks

- 4) Spot ECG,X-ray, Echocardiography,
Tread Mill, Cardiac Catheterisation : 100 marks

Total : 400 marks

Theory + Practical Grand Total : 800 marks

(g) M.D.: (Preventive Social Medicine)

- 1) Long cases : 100 marks
- 2) Medico Social case : 100 marks
- 3) Short cases (50 marks each) : 100 marks
- 4) Public Health Chemistry : 10 marks
- 5) Table work : 10 marks
- 6) Statistics : 10 marks
- 7) Epidemiology express : 10 marks
- 8) Spots : 10 marks
- 9) Viva voce examination/ Oral : 50 marks

Total : 400 marks

Theory + Practical Grand Total : 800 marks

(h) M.D.: (Hospital Administration)

- 1) Long Case one : 150 marks
- 2) Short Case two (50 marks each) : 100 marks
- 3) Oral (Viva voce examination) : 150 marks
Including spots

Total : 400 marks

Theory + Practical Grand Total : 800 marks

(i) Diploma in Health Administration (D.H.A.)

- 1) Long case : 100 marks
- 2) 2 Short Cases (50 marks each) : 100 marks
- 3) Viva : 100 marks

Total : 300 marks

Theory + Practical Grand Total : 600 marks

(j) Diploma in Tuberculosis and Chest Diseases (D.T.C.D.)

- 1) Long Case : 100 marks
- 2) 2 Short Cases (50 marks each) : 100 marks
- 3) Spots/Histology/Microbiology/X-rays etc. : 50 marks
- 4) Viva Vice examination : 50 marks

Total : 300 marks

Theory + Practical Grand Total : 600 marks

(k) Diploma in Pediatrics (D.C.H.)

PRACTICALS

- 1) Long Case : 100 marks
- 2) 2 Short Cases (50 marks each) : 100 marks
- 3) Spots/Bacteriology/Microbiology/ECG : 50 marks
- 4) Viva : 50 marks

Total : 300 marks

Theory + Practical Grand Total : 600 marks

(l) Diploma in Dermatology Venereology and Leprosy

PRACTICALS

- 1) Long Case : 75 marks
- 2) 2 Short Cases (50 marks each) : 100 marks
- 3) Spots, Histopathology slides : 50 marks
- 4) Viva voce examination : 75 marks

Total : 300 marks

Theory + Practical Grand Total : 600 marks

(m) Diploma in Psychiatry (D.P.M.)

PRACTICALS

- | | | |
|---|---|-----------|
| 1) Long Case | : | 100 marks |
| 2) 2 Short Cases (50 marks each)
[Neuro (1), Psychiatry (1)] | : | 100 marks |
| 3) Spots/Pharmacology/ECT
Drugs etc. | : | 25 marks |
| 4) Viva Voce examination | : | 75 marks |

Total	:	300 marks
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Theory + Practical Grand Total	:	600 marks
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(n) Diploma in Public Health (D.P.H.)

PRACTICALS

- | | | |
|--|---|-----------|
| 1) Long Case | : | 100 marks |
| 2) 2 Short Case each of 50 marks
(Including medico Social case) | : | 100 marks |
| 3) Table work, Spots, Public Health
Chemistry | : | 50 marks |
| 4) Viva voce examination | : | 50 marks |

Total	:	300 marks
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Theory + Practical Grand Total	:	600 marks
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(o) M.S. Branch – I M.S.(General Surgery)

PATTERN OF PRACTICAL EXAMINATION

For all Subjects under Board of Studies in General Surgery, the practical examination will consist of 400 marks and the distribution of marks will be as under:

- | | | | |
|----|---|-----|--------------------------|
| 1. | One long case | : | 100 marks |
| 2. | Two short cases | : | 140 marks(70 marks each) |
| 3. | Surgical Pathology | : | 40 marks |
| 4. | X-Rays and
special
Investigations |) : | 40 marks |
| 5. | Osteology and Gross
Anatomy including
Soft parts of |) : | 40 marks |

- Dissected body)
6. Surgical Instruments and Operative Surgery. 40 marks

Total : 400 marks

Theory + Practical Grand Total : 800 marks

(p) M.S.: (Gynecology and Obstetrics)

CLINICAL AND PRACTICAL EXAMINATION

1. Obstetrics - 1 Long Case : 60 marks
 - 1 Short Case : 40 marks
2. Gynecology - 1 Long Case : 60 marks
 - 1 Short Case : 40 marks
3. Table Viva Voce examination : 50 (Obst.)
 : 50 (Gynaec.)

4. Obstetrics OR Gynecology
- | | | | | |
|----------------------------------|----------|----|-----------------|----------|
| Dummy pelvis | 25 marks | OR | Drugs | 25 marks |
| Drugs | 25 marks | | Instruments | 25 marks |
| Instruments | 25 marks | | Family Planning | 25 marks |
| Imaging and Other Investigations | | | Investigations | 25 marks |
| Procedures | 25 marks | | | |

Total	400 marks	OR	Total	400 marks
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Theory + Practicals Grand Total 800 marks

(q) M.S. Branch – III : (Ophthalmology)

PATTERN OF PRACTICAL EXAMINATION :

For all Subjects under Board of Studies in General Surgery, the practical examination will consist of 400 marks and the distribution of marks will be as under:

1. One long case : 100 marks
2. Two short cases : 140 marks(70 marks each)
3. Surgical Pathology : 40 marks
4. x-rays and) : 40 marks
special) :
Investigations) :
5. Osteology and Gross :
Anatomy including }
Soft parts of) : } 40 marks
Dissected body) : }
6. Surgical Instruments :
and Operative Surgery. : 40 marks

Total : 400 marks

Theory + Practical Grand Total : 800 marks

(r) M.S. (ENT)

M.S. Branch – II : (Oto-Rhino-Laryngology)

PATTERN OF PRACTICAL EXAMINATION :

For all Subjects under Board of Studies in General Surgery, the practical examination will consist of 400 marks and the distribution of marks will be as under:

1. One long case : 100 marks
2. Two short cases : 140 marks(70 marks each)
3. Surgical Pathology : 40 marks
4. X-Rays and) }
special) } 40 marks
Investigations) }
5. Osteology and Gross }
Anatomy including } 40 marks
Soft parts of) }
Dissected body) }

6. Surgical Instruments :
and Operative Surgery. 40 marks

Total : 400 marks

Theory + Practical Grand Total : 800 marks

(s) M.S. (Ortho)

M.S.Branch – IV : (Orthopaedics)

PATTERN OF PRACTICAL EXAMINATION :

For all Subjects under Board of Studies in General Surgery, the practical examination will consist of 400 marks and the distribution of marks will be as under:

1. One long case : 100 marks
2. Two short cases : 140 marks(70 marks each)
3. Surgical Pathology : 40 marks
4. X-Rays and)
special) } 40marks
Investigations)
5. Osteology and Gross)
Anatomy including) } 40 marks
Soft parts of)
Dissected body)
6. Surgical Instruments : 40 marks
and Operative Surgery.

Total : 400 marks

Theory + Practical Grand Total : 800 marks

(u) D.O.M.S.

PRACTICAL EXAMINATION.

Scheme will be the same as other Diploma Examinations.

- 1) One Long Case - Ophtalmology : 75 marks
- 2) Two Short Cases - Ophthalmology : 100 marks
each of 50 marks
- 3) Table Viva Voce as follows :
 - i) Surgical Pathology : 50 marks
 - ii) Operative Opthoalmology : 25 marks
 - iii) Instruments : 25 marks
 - iv) X-Rays and other Investigations : 25 marks

Total : 300 marks

Theory + Practical Grand Total : 600 marks

(v) D. Ortho.

Practical Exam.

- 1) One Long Case in Ortho : 75 marks
- 2) Two Short Cases in Ortho : 50 marks
each of 25 marks
- 3) Viva voce examination as follows
 - i) Surgical Pathology : 50 marks
 - ii) Instruments : 25 marks
 - iii) X-Rays & other Investigations : 25 marks
 - iv) Operative Orthopedics : 25 marks

Total : 300 marks

Theory + Practical Grand Total : 600 marks

(w) D.L.O.

Practical Exam.

- 1) One Long Case in ENT : 75 marks
- 2) Two Short Cases in ENT : 100 marks
each of 50 marks
- 3) Viva voce examination as follows
 - i) Surgical Pathology : 25 marks
 - ii) Instruments : 25 marks
 - iii) X-Rays : 25 marks
 - iv) Bones in ENT : 25 marks
 - v) Audiograms : 25 marks

Total : 300 marks

Theory + Practical Grand Total : 600 marks

(x) D.G.O.

Practical Exam.

- 1) 2 Long Cases one each in Gynecology & obst : 100 marks each.
- 2) 2 Short Cases one each in Obst & Gynecology : 30 marks each.
- 3) Table Viva voce examination as follows
 - Obstetrics Gynecology
 - i) Dummy Pelvis : 25 marks
 - ii) Imaging Drugs : 25 marks
 - iii) Instruments : 15 marks
 - iv) Other Drugs : 15 marks
 - v) Instruments & Operation Gynecology : 25 marks
 - vi) Imaging & Family planning : 20 marks
 - vii) Other Investigations : 15 marks

Total : 300 marks

Theory + Practical Grand Total : 600 marks

(y) **M.D. PATHOLOGY**

1. Autopsy	:	50
2. Histopathologic slides	:	105
3. Surgical Pathology	:	35
4. Haematology	:	55
5. Clinical Pathology	:	20
6. Chemical Pathology	:	45
7. Clinical Bacteriology	:	25
8. Serology	:	15
9. Grand Viva	:	50

Total Marks	:	400 marks
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Theory + Practical	Grand Total :	800 marks
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(z) **M.D. Physiology**

PRACTICALS

1. Mammalian Experiment : Langendorf's isolated mammalian heart preparation	60
2. Physiological interpretation of Lab Data	50
- Biochemistry test reports	
- ECG recordings	
- EEG recordings	
- EMG recordings	
- Lung function reports.	
(to be conducted in the form of a spot table).	
3. Human experiments (two experiments)	60
4. Hematology	30
5. Clinical examination	50
6. Oration and microteaching	50
7. Grand Viva voce examination	100

Total Marks	400 marks
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Theory + Practical	Grand Total	800 marks
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(AA) M.D. Pharmacology Branch IV

Practical and Viva

1. Long Experiment	: One	-100 Marks
(Isolated tissue experiment including Bioassay).		
2. Short Experiments	: Two each of 50 minutes	-100 Marks
(Drug, screening procedures) evaluations, protocol design		
3. Technique demonstrations	: Two	- 75 marks
(Oral feeding, IV injection, blood collection in Lab animals)		
4. Equipments and Instruments		- 50 Marks
used in Pharmacological experiments and drug research.		
5. Grand Viva		- 75 Marks

Total Marks		- 400 Marks

Theory + Practical Grand Total		- 800 Marks

(AB) M.D. Radiodignosis

PRACTICALS

I.	WORKED UP CASES:	
	One long case	100 Marks
	Two short cases (Each of 50 minutes)	100 Marks
II.	RADIOGRAPHS/IMAGING MODALITIES	
	READING SESSION	
	(a) Spots (minimum twenty-five) of Radiographs/Imaging Modalities	50 Marks
	(b) Each examiner to conduct Reading session of Radiography imaging modalities	100 Marks
III.	ORALS / Viva voce examination	50 Marks

	Total	400 Marks

	Theory + Practical Grand Total	800 Marks

(AC) M.D. Microbiology

PRACTICAL

1. Long exercise.	: 70 Marks
2. Short exercise.	: 40 Marks
3. Mycology.	: 35 Marks
4. Media exercise.	: 20 Marks
5. Serology.	: 45 Marks
6. Virology exercise.	: 25 Marks
7. Lab.animal exercise.	: 25 Marks
8. Slides.	: 45 Marks
9. Parasitology.	: 20 Marks
10. Grand Viva. Voce examinations	: 75 Marks

Total Marks : 400 marks

Theory + Practical Grand Total : 800 marks

(AD) M.D. Biochemistry

PRACTICAL

(A) Long case (Five investigations)	150 Marks
(B) Short case profile - Two	
(i) Enzyme kinetics	50 Marks
(ii) Chromatography/Analytical Text/ Electrophoresis	50 marks
(C) Standardization	50 Marks
(D) Microteaching	50 Marks
(E) Grand viva	50 Marks

Total Marks 400 Marks

Theory + Practicals Grand Total 800 Marks

(AE) M.Ch. Neurosurgery

PRACTICAL

(a) Operating Session	-	100 Marks
(b) Long Case	-	100 Marks
(c) Two Short Cases -25 Each	-	50 Marks
(d) Neuroradiology	-	75 Marks
(e) Ground Viva	-	75 Marks

Total Marks	-	400 Marks

Theory + Practical Grand Total	-	800 Marks

(AF) M.D. Forensic Medicine

PRACTICAL

1. Autopsy	100 Marks
(a) Adult autopsy	75 Marks
(b) Foetal autopsy	25 Marks
2. Clini. Forensic Medicine	100 Marks
(a) Exam. of a person for Age	20 Marks
(b) Exam. of a case of Alco	20 Marks
(c) Exam. of a case of Injury	20 Marks
(d) Exam. of a case Insanity	20 Marks
(e) Exam. of a case of Imp. Etc.	20 Marks
3. Exam. of Exhibits	75 Marks
(a) Weapon	15 Marks
(b) Photographs	15 Marks
(c) X'rays	15 Marks
(d) Bones	15 Marks
(e) Poisons	15 Marks

4. Forensic Pathology		50 Marks
(a) Histopathological Slides	10 Marks	} 40 Marks
(b) Morbid Specimens	10 Marks	
(c) Blood Grouping	10 Marks	
(d) Gram's stain	10 Marks	
5. Expert Opinion Case File		25 Marks
6. Viva voce examinations		50 Marks

Total Marks		400 Marks

Theory + Practical Grand Total		800 Marks
