



# PRAVARA INSTITUTE OF MEDICAL SCIENCES (DEEMED TO BE UNIVERSITY)

Loni, Tal. Rahata, Dist. Ahmednagar 413736

NAAC Re-accredited with 'A' Grade

## SYLLABUS

### PG Programme- MD (COMMUNITY MEDICINE)

(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.

##### Goal:

The overall goal of training program is to produce a competent public health specialist who can function as a leader of health team and is able to provide effective health care at primary, secondary and tertiary levels

#### II. OBJECTIVES

##### A. Teacher/trainer to

1. Plan and conduct an educational session/program. He/ She will be able to draw up lesson plan with details of educational objectives, content, process and essential inputs.
2. Assist in development of curriculum, teaching and learning activities and methods of evaluation.
3. Assist in manpower planning
4. ng and development. He/She should be able to participate in programs for the selection, training and supervision of various cadres of health personnel.

##### B. Researcher to

1. Plan and execute a research study including clinical trials. Use/Organize biostatistical analysis using computers and softwares and prepare reports/papers.
2. Critically evaluate research activities.
3. Make recommendations on policy and procedures.

##### C. Public Health Specialist to

1. Define and manage the health problems of the community, which he/she serves. He/She should be able to organize epidemiological studies to identify health problems.
2. Plan, implement and evaluate various health programs in his/her area, especially National Health, Family Welfare and disease control/eradication programmes.
3. Select, train, supervise and manage various categories of health personnel working with him/her.
4. Organize health care services, routine and for special groups and during periods of special needs such as disasters/calamities and epidemics.

#### III. SUBJECT SPECIFIC COMPETENCIES

**At the end of the course the student should be able to acquire the following competencies under the three domains, Cognitive, Affective and Psychomotor:**

**A. Cognitive domain (The student should be able to :**

1. Describe conceptual (and applied) understanding of Public Health, Community Medicine, clinical and disease-oriented approach, preventive approach & health promotion, disease control & promotion.
2. Have knowledge about communicable and non-communicable diseases, emerging and re-emerging diseases, their epidemiology, control and prevention.
3. Apply the principles of epidemiology, health research and Bio-statistics, application of qualitative research methods
4. Calculate Odds Ratio, Relative Risk, Attributable risk and other relevant health and morbidity indicators.
5. To describe nutritional problems of the country, role of nutrition in health and disease and to describe common nutritional disorders
6. Develop nutrition plan for an individual based on his requirements and with concerns to special situations if applicable
7. Plan comprehensive programme to address issue of malnutrition in a given area for a specific group
8. To describe the concept of Environmental Health and its various determinants.
9. Identify environmental health issues in a given area/community
10. Assess impact of adverse environmental conditions on health of human beings
11. Plan awareness programmes at various levels on environmental issues and mobilize community resources and participation to safeguard from local adverse environmental conditions
12. Should be able to provide technical advice for water purification, chlorination, installing gobar gas plant, construction of soakage pits etc.
13. Be a technical expert to advice on protection measures from adverse environmental exposure
14. To describe the working of Primary Health Care system, Panchayat Raj system, National Health Programmes, urban/rural differences, RCH, Demography and Family Welfare.
15. Do orientation of the inter-linkage of health sector and non-health sector for promotion of Health & control and prevention of diseases.
16. Have familiarity with administrative procedures and protocols
17. Have knowledge about role of media and its use in health.
18. Have knowledge of Health Care Administration, Health Management and Public Health Leadership
19. To describe Health Policy planning, Medical Education technology, Information Technology and integration of alternative Health system including AYUSH.
20. To describe the intricacies of Social & Behavioral sciences and their applications.
21. To describe Public Health Legislations
22. To understand and describe International Health & Global Diseases surveillance.
23. To relate the history of symptoms with specific occupation, diagnostic criteria, preventive measures, identification of various hazards in a specific occupational environment and legislations.
24. To keep abreast of recent advances in Public Health & formulate feasible, optimal, sustainable, cost effective strategies in response to the advances in public health & development.
25. To describe the principles of Health Economics and apply it in various public health settings.

26. To explain and correlate common health problems (medical, social, environmental, economic, psychological) of urban slum dwellers, organization of health services in urban slum areas
27. Develop workable interventions for control and prevention of emerging and re-emerging diseases at local, national and global level.
28. Identify behavior pattern of individual or group of individuals detrimental or adversely affecting their health
29. Define and identify vulnerable, under-privileged high risk communities and their special needs
30. To create awareness about various public health laws
31. Evaluate cost effectiveness and cost benefits of a Health Program
32. Understand and express implications of 'Poverty Line', 'Social Inclusion', 'Equity', 'taxations', 'Insurance' on Health care management.
33. To categorize hospital waste and be able to guide for proper disposal.
34. To provide a comprehensive plan for disaster management and mitigation of sufferings.

### **B) Affective domain:**

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

### **C) Psychomotor domain: (The student should be able to :)**

#### **The student should be able to perform independently the following:**

- Conduct community surveys for assessment of health & morbidity profile, epidemiological determinants, assessment of health needs, disease surveillance, evaluation of health programmes and community diagnosis
- Conduct epidemic investigations, spot maps, predict disease trends, preparation of reports, planning and implementation of control measures
- Demonstrate clinical skills of preparing case history, examination, provisional diagnosis, treatment and clinical case management and interpretation of laboratory findings. Conduct common procedures such as incision, drainage, dressings & injections.
- Do data collection, compilation, tabular and graphical presentation, analysis and interpretation, applying appropriate statistical tests, using computer-based software application for validation of findings
- Conduct epidemiological research studies to establish cause-effect relationships in elaborating the epidemiology of diseases and health events
- Develop appropriate IEC Material, assessment of community communication needs, training skills, counseling skills, conduct Health Education Programmes in urban and rural settings
- Conduct dietary surveys, assessment of nutritional status, nutritive values of common food menus, detection of food adulterants, use of lactometer, recording and interpretation of growth and development charts.

- Use and apply various instruments and processes concerned with environmental health and biological waste management eg. waste collection, segregation and disposal as per protocols, needle-disposers, disinfection procedures. Also use of Dosi-meters, Kata / Globe Thermometer, Slings Psychrometer, Gobar Gas Plant, Soakage pit, Solar Energy, functioning of ILRs, Deep Freezers, Cold Boxes, Vaccine Carriers.
- identify different types of mosquitoes, detect vector breeding places and orientation of the methods of elimination of breeding places and placement of a mosquito-proof water tank.
- Conduct clinical screening of various diseases and organize community health camps involving community participation in urban and rural settings. Use of Snellen charts for vision, Ishihara's chart for colour blindness, tourniquet tests for dengue diagnosis in fever, BMI and other physical measurements of infants, children and adults etc., copper-T insertions and preparation of pap smear.
- Conduct tests for assessment of chlorine demand of water (Horrock's Apparatus), procedure of well-water and urban water-tank chlorination, assessment of chlorination levels, physical examination of water, methods domestic water purification, oriented in use of water filters.
- Prepare health project proposals with budgeting based on the project objectives.

**Miscellaneous skills: (The student should be able to)**

1. Devise appropriate health education messages for public health awareness using various health communications strategies.
2. Identify family level and community level interventions and facilitate the implementation of the same e.g. food hygiene, food storage, cooking demonstrations, community kitchen, kitchen garden, empowerment of women for promoting nutritional health etc.
3. Demonstrate counselling skills for family planning services.
4. Plan and execute BCC strategy for individuals.
5. Conduct measurement of occupational exposure to harmful influences.
6. Diagnose occupational hazards and undertake surveys to identify occupational exposures as and when necessary.
7. Elicit appropriate response at individual and community level to prevent occupational hazards including IEC activities at different levels.
8. Use modern IT applications especially internet & internet-based applications.

## IV. SYLLABUS

**Course contents:**

1. **Conceptual (and applied) understanding of Public Health, Community Medicine, clinical disease-oriented approach, Preventive approach & Health promotion, disease control & promotion.**

**Learning objectives:**

At the end of this course topic, the student should be able to:-

- i. Understand and explain the concept & application and give suitable analogies/examples related to Public Health/Community Medicine (with

- differences), Disease-oriented v/s Preventive approach, health promotion disease control & prevention.
- ii. Explain correlation between health and human development with analogies/examples.
- iii. Explain concept of Primordial, Primary, Secondary and Tertiary prevention with examples.
- iv. Evolutionary History and mile-stones in Public Health – National and International levels.

## **2. Communicable and Non-Communicable diseases, emerging and re-emerging diseases**

### **Learning objectives:**

At the end of this course, the student should be able to:-

- i. Understand and explain Epidemiology of Communicable/Non-communicable diseases- its causes, precipitating factors, social & other non- health causes, mechanisms of transmission, signs/systems, management, control & prevention measures, related national Health Programmes & national Guidelines, Directives, special projects, if any.
- ii. Explain application of Disease surveillance system in control of Communicable/Non-communicable diseases.
- iii. Explain & undertake steps to investigate & control outbreaks, epidemics and take measures to prevent the same.
- iv. Evolve prevention & control measures based on local & regional epidemiological funding, synchronizing with National guidelines.

## **3. Applied Epidemiology, Health research, Bio-statistics**

### **Learning objectives:**

At the end of this course, the student should be able to:-

- i. Explain the concept & application of Epidemiology of Disease and Health giving suitable examples.
- ii. Explain Epidemiological approach, the terms Distribution & Determinants, uses, types of Epidemiological studies, interpretation, merits/demerits and limitations, odds ratio, relative risk, attributable & population attributable risks, Hybrid designs (with examples), validity of Epidemiological Data and application in practice at field level.
- iii. Explain Epidemiological Research methods, Research related protocols, Literature review, estimating sample size, data collection/ compilation/Analysis/ Research, interpretation.
- iv. Develop Health interventional programs based on Epidemiological Finding & create evidence for Public Health action.
- v. Understand difference between data, information & intelligence, types of data, survey methods, formulating questionnaires, interview schedule, data presentation types & analysis.
- vi. Apply computer based software application for data designing, data management & collation analysis e.g. SPSS, Epi-info, MS office and other advanced versions.

## **4. Nutrition**

### **Learning objectives:**

At the end of this course, the student should be able to:-

- i. Identify various nutritional problems in the region, state and country and contributing factors for the same, with due emphasis on ecology perspectives.

- ii. Explain importance of various nutrients (including micronutrients) in health, their sources, requirements and problems associated with their deficiencies as well as over consumption.
- iii. Plan balanced diet and dietary requirements of various age and sex groups.
- iv. Dietary/nutritional concerns of vulnerable groups – young children, adolescents, ANC/PNC/Lactating mothers/senior citizens/individuals with various health problems e.g hypertension, diabetes, renal problems etc.
- v. Classification of food, food additives, food fortification, food enrichment, food toxins and food adulteration.
- vi. Explain Food production, Food hygiene and safety, food storage, food preparation, food wastage and feeding practices.
- vii. Assessment of nutritional status of a community by adopting different methodologies.
- viii. Nutritional supplementation, surveillance, education and rehabilitation.
- ix. National programmes in nutrition and their evaluation
- x. National nutrition policy.

## **5. Environmental health**

### **Learning objectives:**

At the end of this course, the student should be able to:-

- i. Highlight importance of external environment (air, water, noise, radiation, temperature, ventilation, solid waste disposal, insects and vectors, domestic and country yard pests, industrial waste disposal etc. and its impact on ecology and human health.
- ii. Elaborate on health issues related to housing, air, water, noise, radiation pollution i.e. size of problems, area and specific groups affected, measurement of pollution levels and health impact of the same, corrective measures
- iii. Elaborate on requirements of water, water chlorination and household purification measures, measurement of chlorine demand, Break-point chlorination levels, water quality.
- iv. Assessment of quality of water and air, control of air pollution
- v. Explain environmental sanitation and control measures (including appropriate technologies) – modern methods of sewage disposal, mechanical ventilation, soakage pits, gobar gas plants, smokeless Chula, solar energy, rainwater harvesting, sewage water recycling plants at society level etc.
- vi. Explain global warming and its health impact.
- vii. Elaborate on forest reserves, social forestry and health
- viii. Study vectors of medical importance and integrated control measures against them.
- ix. Explain dynamics of transmission of vector borne diseases
- x. Explain pest control measures
- xi. Explain environmental health issues in urban and rural areas
- xii. Understand functioning of public sector measures to safeguard environmental health e.g water purification plant
- xiii. Explain Legislative measures for protection of environmental health

## **6. Primary Health Care System, Panchayat Raj, National Health Programmes including RCH, Demography & Family Welfare:**

### **Learning Objectives**



At the end of this course, the student should be able to:-

- i. Explain the meaning of Primary Health Care with suitable analogies with reference to India, and be able to define the systems approach for implementation of Primary Health Care.
- ii. Enumerate the elements, principles, population coverage norms, staff patterns, day to day activities, programme schedule, stakeholders at PHC level.
- iii. Explain the scope and implications of 3-tier system of Primary Health Care.
- iv. Understand functioning of Rural Panchayat Raj system of development and its co-relation with health.
- v. Promote community participation in Primary Health Care programme and motivate various stakeholders for the same.
- vi. Understand and comply with medico-legal procedures related to Primary Health Care activities.
- vii. Integrate, coordinate both health and non-health sectors for implementing various national health programmes.
- viii. Deliver the provisions of various health schemes to eligible beneficiaries such as Janani Suraksha Yojana, Rashtriya Swasthya Beema Yojana, Rajiv Gandhi Jeevandayi Arogya Yojana etc.
- ix. Impart training in health programmes for paramedical workers, lab technicians, community health volunteer's, interns and provide health education in the community.
- x. Implement Public Health Skills for investigations and containment of outbreaks & epidemics.
- xi. Understand history of evolution of public health, important milestones in the world and in India.
- xii. Enumerate the various health committees established and their major recommendations since 1947-48 to till date.

## **7. Health Care Administration, Health Management and Public Health Leadership**

### **Learning Objectives:**

At the end of this course, the student should be able to:-

- i. Explain the conceptual difference between Administration and Management, Power and Authority with reference to health care.
- ii. Explain the role of fundamental principles of constitution, principles of Democracy and its correlation with health care administration.
- iii. Explain the role of Bureaucracy, Technocracy, Political system, Judiciary, Media and people in health care administration.
- iv. Explain and identify the key positions and their role in health administration at State, District, Taluka (Tehsil block) and village level.
- v. Explain the frame work of health care system at State, District, Taluka & village level and understand the mechanism of coordination between bureaucrats, technocrats, political, judiciary and media at each of these levels.
- vi. Enumerate functions of a manager, explain concepts of management and leadership styles, various management techniques, planning process, monitoring & evaluation skills.
- vii. Should be sensitive to quality issues in health care management and comply with relevant quality management techniques.
- viii. Formulate and manage team approach for implementing health programmes.
- ix. Apply skills of effective human resource management and identify relevant roles, responsibilities and duties of functionaries.

- x. Implement skills of motivation, communication, negotiation and conflict management at PHC level.
- xi. Develop budgetary statements based on evidence of needs assessment and be able to maintain account of expenditure as per norms.
- xii. Undertake community health needs survey, conduct training & communication needs assessment of paramedical and health workers, identify vulnerable, underprivileged communities, implements high risk approach.

## **8. Health Policy, Medical Education, Integrating Alternative system of Medicine**

### **Learning Objectives**

At the end of this course, the student should be able to:-

- i. Understand and elaborate implications of the policy provision with reference to the current health scenario in the country.
- ii. Explain the role of health policy in promotion of Primary Health care, ensuring equity, inter-sectoral co-ordination, appropriate technology and community participation.
- iii. Explain the various provisions for promotion of preventive and curative health services including National Health Mission, National Health Programs, Quality Hospital based services, Medical Education and AYUSH.
- iv. Critically appreciate merits and demerits of the Health Policy.
- v. Explain SWOT analysis of the policy and debate on evidence based recommendations, additions, deletions.
- vi. Debate on suggestions or recommendations for future inclusions.

## **9. Social and behavioral sciences**

### **Learning objectives:**

At the end of this course, the student should be able to:-

- i. Understand influence of social and behavioral practices on health.
- ii. Understand principles of behavior change of an individual and community. Clearly understand difference between knowledge, attitude and practices..
- iii. Understand importance of social medicine and health.
- iv. Importance of behavior change communication (BCC).
- v. Socio-cultural factors influencing behavior change.
- vi. Formal and informal organizations in the community.
- vii. Influence of peer pressure.
- viii. Know the health problems, where BCC interventions are necessary.
- ix. Understand factors promoting and detrimental to BCC.

## **10. Public Health Legislations**

### **Learning objectives:**

At the end of this course, the student should be able to:-

- i. Explain public health legislations and need for the same.
- ii. Know in detail each public health law – when, why, implementation, impact, issues etc.
- iii. Enforcement of various public health laws.
- iv. Judiciary mechanism for ensuring proper implementation of public health laws.
- v. Scope for integrated approach for implementation of public health laws.

## **11. International Health**



**Learning Objectives:**

At the end of this course, the student should be able to:-

- i. Understand the need and scope for international health measures.
- ii. Enlist and understand functioning of various UN agencies (including WHO) playing key role in international health.
- iii. Enlist and understand functioning of bilateral vs multilateral international donor agencies.
- iv. Provide advice to international travelers and vaccination requirements,
- v. Understand International health control measures e.g. quarantine, airport management etc.
- vi. Understand the management of international ports from health perspectives.

**12. Occupational Health****Learning Objectives:**

At the end of this course, the student should be able to:-

- i. Understand the concept of occupational health and its importance, Occupational environment and work dynamics.
- ii. Know different types of occupational exposures at various settings.
- iii. Enlist various occupational hazards and their relative magnitude.
- iv. Understand measurement of exposure levels to harmful influences during occupation.
- v. Understand preventive and control measures against various occupational hazards – global, national and local level measures.
- vi. Understand individual and community responses towards preventing exposure to occupational hazards.
- vii. Understand and advise occupational safety measures.
- viii. Understand legislative measures to prevent exposures to occupational hazards.
- ix. Advise compensation provisions to persons exposed to various occupational hazards.
- x. Understand occupational health problems amongst people in unorganized sector
- xi. Understand and advise social security and welfare provisions for workers – ESIS, Factory's Act, Role of ILO, Ministry of Labor, DGFASLI.

**13. The recent advances in Public Health & miscellaneous issues****Learning Objectives:**

At the end of this course, the student should be able to:-

- i. identify & enlist events at local, district, national & global levels influencing or adversely affecting health /medical issues of the population.
- ii. Adopt & practise skills related to utilization of modern technology, software, IT application in the interest of health promotion & disease prevention.

**14. Health Economics****Learning Objectives:**

At the end of this course, the student should be able to: -

- i. Describe the scope of health economics.
- ii. Understand health market & its characteristics.
- iii. Understand & apply economic evaluation techniques.

- iv. Assess the mechanism of Funding Health Care services, especially health insurance.
- v. Advise on allocation of resources appropriately in their work area.

## V. *TEACHING AND LEARNING METHODS*

### Teaching methodology

The following is a rough guideline to various teaching/learning activities that may be employed:

- **Journal Club** : Critical appreciation and discussion of research articles in indexed journals
- **Seminar**
- **Lecture/Discussion** : Lectures on newer topics by faculty
- **Case presentation** : Communicable disease case presentation (focus on epidemiology, control, prevention) or Family case ( focus on health needs assessment, SWOT analysis of family, social determinants and social empowerment, community management, role of primary health care and mobilizing resources for empowerment of the family). PG students will present the cases in presence faculty and discuss various modalities of management.
- **Public Health Management training** in Immunization clinics, Disease Surveillance Units, General Preventive OPD, hands-on training in management of national health programs at urban health centre and rural health centre along with orientation in health administrative system.
- The PG student shall be required to participate in the teaching and training programme of Undergraduate students and interns.
- The PG student must have attended Mandatory training in Research Methodology during his tenure.
- 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.
- Special Seminars / Workshops: conducted by External Faculty on cross-cutting subjects directly or indirectly concerned with Health. eg. Critical appreciation of National Developmental Budget, delivered by prominent Economist.
- **Log Book**: Postgraduate students shall maintain a log book of the work carried out by them and the training programme undergone during the period of training including details of work experience during their postings, including programs implemented under supervision and those performed independently. The log book shall be checked and assessed periodically by the faculty members imparting the training.
- Department should encourage e-learning activities.
- **Postings are given below:**

**Recommended schedule for three years training:  
Orientation Training/Field postings for students of MD Community  
Medicine**

No.	Field Posting and work	Duration
01	Posting at Sub-centers & PHCs Under & at RHTC and UHTC attached to Dept of Community Medicine as per MCI norm	Total period of ONE year during the 3 year period of PG course. Posting at RHTC should be residential.
02	Posting in the teaching hospital for exposure to clinical departments namely Pediatrics, OBGY & General medicine to acquire clinical skills for diagnosis and management of Communicable and Non-Communicable Diseases	Total - One month General Medicine-2 wks Pediatrics -1 wk Ob. & Gy. -1 wk Time of posting shall be at the discretion of local feasibility
03	Work attachment to gain hands- on skills based, training in public health department & orientation in Health Administration and Management of various National Health Programmes and aspects of public health management at the offices of the DHO/DHS/THO/DTO/DMO/CDPO/MOH of Local Civic Body or district health authorities.	Total - One month Place & time of 2 postings of 2 wks each shall be at discretion of local feasibility.
04	Short duration posting in various camps, melas, public health emergencies, investigation of epidemics, implementation of NHP, linen dept of hospital, Hospital kitchen, Hospital record section, central drug store, Medical Supdt. Office, blood bank, casualty dept., CCL, Hospital waste management, ART-VCTC, Matron Office (HRD), HMIS etc.	Total - one month Minimum of four postings of 1wk duration each shall be done subject to local feasibility.
05	Visits to various institutions of Public Health Importance	Subject to local feasibility

**During the training programme, patient safety is of paramount importance; therefore, skills are to be learnt initially on the models, later to be performed under supervision followed by performing independently; for this purpose, provision of skills laboratories in medical colleges is mandatory.**

## VI. ASSESSMENT

**FORMATIVE ASSESSMENT, ie., during the training may be as follows:**

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

**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

**The student to be assessed periodically as per categories listed in postgraduate student appraisal form (Annexure I).**

**SUMMATIVE ASSESSMENT, ie., at the end of training**

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

The examination shall be in three parts:

### 1. Thesis

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

### 2. Theory Examination:

The Post Graduate examination shall be in three parts: -

1. **Thesis:** It should be submitted to the University by each post graduate student at least 6 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, appointed by the university and who shall not be the examiners for theory and practical. A post graduate student shall be allowed to appear for the theory and practical/clinical examination only after the acceptance of the thesis by two examiners.

### 2. Theory:

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 as follows:

- Paper I :** Conceptual (and applied) understanding of Public Health, Community Medicine, Communicable and Non- Communicable diseases, emerging and re-emerging diseases, Applied Epidemiology, Health research, Bio-statistics.
- Paper II:** Nutrition, Environmental Health, Primary Health Care system, Panchayat Raj system, National health Programs, RCH, Demography and Family Welfare, Health Care Administration, Health Management and Public Health Leadership.
- Paper III:** Social & Behavioral sciences- applied aspects, Scientific communications & Medical writing, Research Methodology, Public Health Legislations, International Health & Global Diseases surveillance.
- Paper IV:** Health Policy planning, Medical Education technology, Information Technology, Integration of alternative Health system including AYUSH, Occupational Health, Recent advances in Public Health & Miscellaneous issues, Health Economics.

**Practical/Clinical and oral examination:**

The practical examination should be conducted over two days, not more than 8 post graduate students per batch, per day as follows :

**1. One long Family case from the community:**

Socio-economic, demographic, cultural and holistic history taking, of the family to understand the various risk factors affecting health and quality of life, assessment of social support system, assessment of present morbidity and its implications, evolve interventions for medical relief and social empowerment and role of family, community and primary health care system in resolving family issues. This shall be conducted preferably in the community setting.

**2. One long Case (30 minutes), 2 short cases (20 minutes each) – Cases with Communicable Diseases**

Students will elaborate on clinico-epidemiological case history to assess the epidemiological factors, precipitating factors, probable source of infection and evolve measures for diagnosis, treatment, management with reference to the case as well as major public health concerns, i.e. Control, prevention of the diagnosed disease and interventions in case of eminent outbreak / epidemic situations. Short cases may be assessed without presentation of detailed history, beginning with Differential Diagnosis in the given time.

**3. Epidemiology and Statistics problem-solving exercises (6):**  
(Epidemiological – 3, Statistical – 3)

**4. Public Health Spots (5) :** including interpretation of analytical reports of water, food, environmental assessment and public health micro-biology

**5. Viva-voce Examination**

Oral/ Viva-Voce Examination shall be comprehensive enough to test the post graduate student's overall knowledge of the subject.

**6. Laboratory work**

**Scheme of Examination – PG Theory**

Paper	Total Marks	Distribution
Paper – I	100	2 Long Answer Questions for 20 marks each + 6 Short answers questions for 10 marks each
Paper – II	100	2 Long Answer Questions for 20 Marks each + 6 Short answers questions for 10 marks each
Paper – III	100	2 Long Answer Questions for 20 Marks each + 6 Short answers questions for 10 marks each
Paper – IV	100	2 Long Answer Questions for 20 Marks each + 6 Short answers questions for 10 marks each

**Scheme of Examination – PG Practical**

Heading	Marks
One long case In community (family)	60
One long case in hospital	60
Two short cases in hospital	2 x 30 = 60
Epidemiological exercises	3 x 10 = 30
Statistical exercises	3 x 10 = 30
Public Health spots	5 x 8 = 40
Laboratory work	40
Viva	80
<b>Total</b>	<b>400</b>

**Criteria for passing:**

- Satisfactory completion of dissertation
- 50% marks separately in Theory and Practical at university examination



## 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

### A. Books (latest edition)

1. *Public Health and Preventive Medicine* (Maxcy-Rosenau-Last Public Health and Preventive Medicine) by Robert B. Wallace
2. *Basic Epidemiology*. R Bonita, R Beaglehole, T Kjellstrom. World Health Organization Geneva.
3. *Epidemiology*, by Leon Gordis.
4. *Oxford Textbook of Public Health*. Holland W, Detel R, Know G.
5. *Practical Epidemiology*, by D.J.P Barker
6. *Park's Textbook of Preventive and Social Medicine*, by K.Park
7. *Principles of Medical Statistics*, by A. Bradford Hill
8. *Interpretation and Uses of Medical Statistics*, by Leslie E Daly, Geoffrey J Bourke, James MC Gilvray.
9. *Epidemiology, Principles and Methods*, by B. MacMahon, D. Trichopoulos
10. *Hunter's Diseases of Occupations*, by Donald Hunter, PAB Raffle, PH Adams, Peter J. Baxter, WR Lee.
11. *Epidemiology and Management for Health Care*, by Sathe PV and Doke PP.
12. *Vaccines*, by Stanley A. Plotkin.
13. All reports and documents related to all National Programmes from the Ministry of Health and Family Welfare.

### B. 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, Anesthesia 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.

<b>Day of the week</b>	<b>Time 03 to 5 PM</b>
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 I <sup>st</sup> year (Minimum)	Number Per II <sup>nd</sup> Year (Minimum)	Number per III <sup>rd</sup> 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 12<sup>th</sup> 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 (1 <sup>st</sup> year) 2 (2 <sup>nd</sup> & 3 <sup>rd</sup> 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										
	<b>Overall Assessment</b>										

- **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 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 Attendance 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 Scopus or Web of Science or as fixed 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: \_\_\_\_\_

**Compliance 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

- 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.
- 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**



**Submitted for perusal and approval**

**Vice Chancellor**

## Annexure – VII

**PRAVARA INSTITUTE OF MEDICAL SCIENCES**  
(Deemed to be University)

**Post Graduate Degree in Community Medicine (MD)**

**Examination \_\_\_\_\_ 20\_\_**

**Paper – I/ II/ III/ 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** Write Short notes on Marks 60  
(10x6)

a

b

c

d

e

f

## 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								
<b>TOTAL</b>								<b>1000</b>

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

**Table 3: Showing examples of theory questions**

<b>Sr. No.</b>	<b>Type</b>	<b>Explanation</b>	<b>Examples</b>
<b>1</b>	<b>Long essay question</b>	<ul style="list-style-type: none"> <li>✓ Question should pose clinical problem that will require student to apply knowledge along with integration with disciplines</li> <li>✓ Avoid one liner as question</li> <li>✓ Question stem should be structured</li> <li>✓ Marking distribution should be provided</li> <li>✓ Use of proper verbs from higher domains as given in this document</li> <li>✓ Avoid recall based questions</li> </ul>	
<b>2</b>	<b>Short notes</b>	<ul style="list-style-type: none"> <li>✓ Sample a wider content</li> <li>✓ Questions should be task oriented</li> <li>✓ Reasoning questions provide opportunity for testing integration, clinical reasoning and analytical ability of the student</li> </ul>	

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

<b>Sr. No.</b>	<b>Type of station</b>	<b>Time allotted</b>	<b>Example</b>	<b>Evaluation</b>
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)		
	<b>Ground Total</b>	<b>400</b>	

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.

## Annexure I

# **Postgraduate Students Appraisal Form** **Pre / Para /Clinical Disciplines**

Name of the Department/Unit :

Name of the PG Student:

Period of Training: FROM.....TO.....

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										

Publications Yes/ No

Remarks\* \_\_\_\_\_

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

SIGNATURE OF ASSESSEE

SIGNATURE OF CONSULTANT

SIGNATURE OF HOD



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