

**CHETTINAD ACADEMY OF RESEARCH & EDUCATION**  
**(Deemed to be University under section 3 of the U.G.C. Act 1956)**



**REGULATIONS & SYLLABUS**

**M.D. COMMUNITY MEDICINE**

**CHETTINAD ACADEMY OF RESEARCH AND EDUCATION**

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# **CHETTINAD ACADEMY OF RESEARCH AND EDUCATION**

## **Regulations for M.D. Pre and Para Clinical Courses**

### **1. INTRODUCTION:**

M.D. Pre and Para Clinical course is a three year post graduate program under the Faculty of Medicine for students with an Under Graduate Degree in Medicine. This program is a taught course that covers relevant topics and a research project in the area of specialization. This program shall be competence based and learning shall be essentially autonomous and self directed and supplemented with practical and laboratory work. The curriculum shall have modular approach to learning. The research component is through original exploration and experiments culminating in the research project. This program shall impart advanced theoretical and practical aspects of subjects previously studied in a more generalized manner at the undergraduate level.

These courses are aimed at imparting higher level of training to qualified under graduate medical students in various branches of M.D. Pre and Para Clinical subjects and to utilize this learning to the needs of community.

In exercise of the powers conferred under sub rule (a) and (g) of Rule 8 (b) of Memorandum of Association and Clause 2.1, Chapter III of Bye-laws of Chettinad Academy of Research and Education, the Academic Council hereby makes the following regulations:

### **2. SHORT TITLE AND COMMENCEMENT:**

These Regulations shall be called the "Regulations for M.D. Pre and Para Clinical Courses of Chettinad Academy of Research and Education. These regulations are subject to modifications as may be approved by the Academic Council from time to time.

### **3. GOAL:**

The goal of postgraduate medical education shall be to produce competent specialists and/or medical teachers:

- i) who shall recognize the health needs of the community and carry out professional obligations ethically and in keeping with the objectives of the national health policy
- ii) who 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.

- iii) who shall be aware of the contemporary advance and developments in the discipline concerned.
- iv) who shall have acquired a spirit of scientific inquiry and is oriented to the principals of research methodology and epidemiology and
- v) who shall have acquired the basic skills in teaching of the medical and paramedical professionals.

#### **4. AIMS AND OBJECTIVES:**

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

- i) Recognize the importance of the concerned speciality in the context of the health needs of the community and the national priorities in the health sector.
- ii) Practice the speciality concerned ethically and in step to the principles of primary health care.
- iii) Demonstrate sufficient understanding of the basic sciences relevant to the concerned speciality.
- iv) Identify social, economic, environmental, biological and emotional determinants of health in a given case, and take them into account while planning therapeutic, rehabilitating, preventive and primitive measures/ strategies.
- v) Diagnose and manage majority of the conditions in the speciality concerned on the basis of clinical assessment, and appropriately selected and conducted investigations.
- vi) Plan and advise measures for the prevention and rehabilitation of patients suffering from disease and disability related to the speciality.
- vii) Demonstrate skills in documentation of individual case details as well as morbidity and mortality rate relevant to the assigned situation.
- viii) Demonstrate empathy and human approach towards patients and their families and exhibit interpersonal behavior in accordance with the societal norms and expectations.
- ix) Play the assigned role in the implementation of National Health Programme effectively and responsibly.
- x) Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in the clinic/hospital or the field situation.
- xi) Develop skills as a self-directed learner, recognize continuing education needs: select and use appropriate learning resources.
- xii) Demonstrate competence in basic concepts of Research Methodology and epidemiology, and be able to critically analyze relevant published research literature.
- xiii) Develop skills in using educational methods and techniques as applicable to the teaching of Medical/ Nursing students, General Physicians and Paramedical Health Workers.
- xiv) Function as an effective leader of a health team engaged in health care, research or training.

#### **5. COMPONENTS OF THE POSTGRADUATE CURRICULUM:**

The major components of the Postgraduate curriculum shall be:

- Theoretical knowledge
- Practical and clinical skills
- Writing Thesis/Research articles
- Attitudes including communication skills
- Training in research methodology, Medical Ethics and Medico legal aspects.

## **6. NOMENCLATURE OF POSTGRADUATE COURSES:**

The nomenclature of Post Graduate Degree should be as laid down in the Post Graduate Medical Education Regulations prescribed by the Medical Council of India.

## **7. ELIGIBILITY FOR ADMISSION:**

Every student, selected for admission to a post graduate medical course in Chettinad University on acquiring M.B.B.S degree or an equivalent qualification thereto shall have obtained permanent registration with the Medical Council of India, or any of the State Medical Council(s) or shall obtain the same within a period of one month from the date of his/her admission, failing which his/her admission shall stand cancelled.

Provided that in the case of a foreign national, the Medical Council of India may, on payment of the prescribed fee for registration, grant temporary registration, for the duration of the post graduate course limited to the medical college/institution to which the candidate is admitted for the time being exclusively for pursuing post graduate studies.

Provided further the temporary registration to such foreign national shall be subject to the condition that such person is duly registered with appropriate registering authority in his own country wherefrom he has obtained his basic medical qualification and is duly recognized by the corresponding Medical Council or concerned authority.

## **8. RECOGNITION FEE AND ELIGIBILITY CERTIFICATE:**

Candidates who have passed the M.B.B.S Degree Examination other than that conducted by Chettinad Academy of Research and Education shall obtain Eligibility Certificate from this University at the time of admission and also remit recognition fee as prescribed.

## **9. REGISTRATION:**

A candidate admitted to the Post Graduate Course shall register with the University by submitting the prescribed application form for registration, duly filled in along with the prescribed fee, through the Head of the Institution.

## **10. PERIOD OF TRAINING /DURATION OF THE COURSE:**

The duration of certified study and training for the M.D. Pre and Para Clinical Courses shall be three completed years including the period of examination.

Provided that in the case of students possessing a recognised two year postgraduate diploma course in the same subject, the period of training, including the period of examination, shall be two years.

**11. COMMENCEMENT OF THE COURSE:**

The course shall ordinarily commence from 2<sup>nd</sup> May of the Academic year.

**12. CUT OFF DATES FOR ADMISSION:**

Candidates admitted up to 31<sup>st</sup> May of the Academic year shall be registered for the same Academic Year and shall be eligible to take up the final examination along with others students admitted prior to their admission. There shall be no admission of students in respect of any academic session beyond 31<sup>st</sup> May for postgraduate courses under any circumstances. The University shall not register any student admitted beyond the said date.

**13. SYLLABUS:**

The Syllabus for the course shall be as specified in the annexure to these Regulations.

**14. MEDIUM OF INSTRUCTION:**

English shall be the medium of instruction for all the subjects of study and for examination.

**15. WORKING DAYS / ATTENDANCE \***

All the candidates joining the Post Graduate training programme shall work as "Full Time Residents" during the period of training and shall attend not less than 85% (Eighty Five percent) of the imparted training during each academic year including assignments, assessed full time responsibilities and participation in all facets of the educational process as per MCI norms. 85% attendance is compulsory for all the Post Graduate students for every academic year. The Attendance details may be submitted to the Controller of Examinations at the end of every academic year. The student should also be intimated quarterly regarding the lack of attendance.

**16. CONDONATION FOR LACK OF ATTENDANCE \***

The discretionary power of condonation of shortage of attendance to appear for

University Examination rests with the Vice Chancellor.

Lack of attendance can be condoned up to a maximum of 5% of the minimum attendance Required in the following exceptional circumstances:

- (i) Any illness/ accident (for which Medical certificate from a registered medical practitioner must be produced)
- (ii) Any unforeseen tragedy in the family (should produce the letter from the parent/guardian)
- (iii) Participation in NCC/NSS and other co curricular activities representing the Institution / University. (Certificate from competent authority is required)

For any of the above reasons, request shall be made by the candidate with prescribed fees to the Controller of Examination through proper channel, ten days prior to the commencement of the theory examination. Based on the recommendation of the Head of the Institution, the Controller of Examination shall obtain the approval of the Vice Chancellor for admission of the candidate to the University Examination.

**\*Sl.No.15 & 16 Amended vide XVIII meeting of Academic Council dated 15.04.2014**

**and to be replaced as detailed below; -**

***In the existing regulations for M.D. Pre – Para and clinical courses, it has been stipulated that 85% attendance is compulsory for all the Post graduate students for every academic year. This has been modified to 80% attendance in keeping with Statutory Body norms. There shall be no condonation for attendance. The attendance criteria will hence read as follow as in MCI regulations.***

***"All the candidates joining the Post Graduate training programme shall work as 'Full Time Residents' during the period of training and shall attend not less than 80% (Eighty percent) of the imparted training during each academic year including assignments, assessed full time responsibilities and participation in all facets of the educational process."***

***The Attendance details shall be submitted to the Controller of Examinations at the end of each academic year. The student should also be intimated quarterly regarding the lack of attendance.***

#### **16 (a) STIPEND AND GRANT OF LEAVE**

The Post Graduate students undergoing Post Graduate Degree / Diploma/Super-Specialty course shall be paid stipend on par with the stipend being paid to the Post Graduate students of State Government Medical Institutions / Central Government Medical Institutions, in the State / Union Territory where the institution is located. Similarly, the matter of grant of leave to Post Graduate students shall be regulated as per the respective State Government rules.

#### **17. MIGRATION / TRANSFER OF CANDIDATES:**

Under no circumstances, Migration/transfer of student undergoing any Post Graduate degree course shall be permitted by the University/Authority

#### **18. TRAINING PROGRAMME:**

The training given with due care to the Post Graduate students in the recognised institutions for the award of various Post Graduate medical degrees shall determine the expertise of the specialist and / or medical teachers produced as a result of the educational program during the period of stay in the institution.

Every institution undertaking Post Graduate training program 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 program in each speciality in consultation with other department faculty staff and also coordinate and or the implementation of these training Programs.

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.

During the training for Post Graduates to be awarded, there shall be proper training in basic medical sciences related to the disciplines concerned; during the training for the degree to be awarded in basic medical sciences, there shall be training in applied aspects of the subject; and there shall be training in allied subjects related to the disciplines concerned. In all Post Graduate training programmes, both 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 be made available for training purposes. The Post Graduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.

Training in Medical Audit, Management, Health Economics, Health Information System, basics of statistics, exposure to human behaviour studies, knowledge of pharmaco – economics and introduction to non- liner mathematics shall be imparted to the Post Graduate students.

Implementation of the training programmes for the award of various Post Graduate Degree shall include the following:

#### **Basic Medical Sciences**

- (i) Lectures, Seminars, Journal Clubs, Group Discussions, Participation in laboratory and experimental work, and involvement in research studies in the concerned speciality and exposure to the applied aspects of the subject relevant to clinical specialities.

#### **(ii) Clinical disciplines**

In service training, with the students being given graded responsibilities in the management and 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 specialities.

The training programme shall be on the same pattern as for M.D. / M.S. in clinical disciplines; practical training including advanced Diagnostic, Therapeutic and Laboratory techniques, relevant to the subject of specialization.

### **19. MAINTENANCE OF LOG BOOK**

- a) Every Post Graduate student shall maintain a record (Log) book containing skills, the candidate as acquired during the training period certified by the various heads of



department where the candidate has undergone training including outside the institution.

- b) The students shall maintain a Record Book (Log Book) of the work carried out by them & training program undergone during the period of training including details of procedures carried out independently or assisted by the candidate. The log book will be checked by the faculty members imparting the training.
- c) At the end of the course, the candidate should summarise the contents and get the record (Log) book certified by the Head of the Department.
- d) The record (Log) book should be submitted at the time of practical examination for the scrutiny of the Board of Examiners.

## **20. THESIS / DISSERTATION AND EVALUATION**

- a) All Candidates admitted to undergo M.D. Pre and Para Clinical Courses shall be assigned a topic for dissertation / thesis by the Head of the concerned unit and the title of the topic assigned to the candidates be intimated to the Controller of Examination of the University by the Head of the Department through the Head of the Institution before end of the First year.
- b) The dissertation / thesis shall be a bound volume of minimum 50 pages and not exceeding 75 pages of typed matter (double line spacing and on one side only) excluding certification, acknowledgements, annexure and bibliography.
- c) Four copies of dissertation shall be submitted six months prior to the commencement of the examination on the prescribed date to the controller of examination of the University.
- d) Two copies are to be submitted as an electronic version of the entire dissertation in a standard C.D. format mentioning the details and technicalities used in the C.D. format.
- e) The concerned Professors / Readers are to supervise and to see that the dissertation is done properly utilising the clinical materials of their own department / institution. The students must learn the design and interpretation of research studies, responsible use of informed consent and research methodology and interpretation of data and statistical analysis. They should seek the help of qualified staff members in the conduct of research. They must learn to use library and the computer-based research. This training will help them to develop skills in planning, designing and conduct of research studies.
- f) All candidates on admission will be allotted one of the department faculties who have fulfilled the requirement to be guides for purposes of guiding Dissertation/thesis. The topic for dissertation shall be finalized and discussed in the departmental faculty meeting and allotted to the individual candidates before the completion of 3 months after admission. The purpose of dissertation is to develop in the candidate the ability to perform an independent study keeping the principles and research methodology in mind. The candidate will therefore work on the prospective problem either within the department or in collaboration with other departments. There will be continuous monitoring of the dissertation work by the guides and co-guide and by the other department staff throughout the course. The candidate will present the progress of

the dissertation to the faculty on the completion of 1 ½ years for monitoring and feedback. The completed dissertation should be submitted not later than 6 months before final examination.

- g) 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 examination.
- h) 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. A candidate shall be allowed to appear for Theory and Practical/Clinical examination only after the acceptance of thesis by the examiners. The thesis shall be evaluated under the following heading:
  - 1) Approved
  - 2) Not approved

In all cases the approval shall be given before 3 months of the date of appearing for the examination and this will be essential before the candidate is allowed to appear for the written examination.

## **21. SCHEDULE OF EXAMINATIONS:**

The examination for M.D. Pre and Para Clinical courses shall be held at the end of 3rd academic year. An academic term shall mean six month's training period."

## **22. SCHEME OF EXAMINATIONS \***

Post Graduate Examinations shall consist of Dissertation/Thesis, Written Paper (Theory), Practical and Viva voce.

The examinations shall be organised on the basis of "Marking system" to evaluate and to certify candidate's level of knowledge, skill and competence at the end of the training.

- a. **Dissertation/Thesis:** Every candidate shall carry out and submit a Dissertation/Thesis as explained and approval of Dissertation/Thesis shall be a precondition for a candidate to appear for the final examination.
- b. A postgraduate student of a postgraduate degree course 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.
- c. **Theory:** A Written Examination shall consist of four theory papers each of three hours duration. Each paper carries 100 marks (Total 400 marks). Out of these one shall be of Basic Medical Sciences and one shall be of Recent advances. The theory examinations shall be held well before the Practical examination, so that the answer

books can be assessed and evaluated well before the commencement of the Practical and Oral examination.

**d. Practical Examination:**

Practical Examination shall be conducted to test the knowledge and competence of the candidates for making valid and relevant observations based on the experimental / laboratory studies and ability to perform such studies as are relevant to the subject.

e. **Oral Examination:** The Oral examination shall be thorough and shall aim at assessing the candidate's knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the speciality, which form a part of the examination.

f. **Pedagogy:** Pedagogy to evaluate the communication and teaching skills, and subject knowledge of the student. The topic for Pedagogy will be given at the end of 1<sup>st</sup> day of the Practical Examination.

<b>THEORY</b>	
No. of Theory Papers	4
Marks for each Theory Paper	*100
Total marks for Theory Papers	400
Passing Minimum for Theory	200/400
Total marks for PRACTICAL	300
Passing Minimum for Practical	150/300
Viva voce	50
Pedagogy	50
Passing minimum for Practical including Viva voce / Pedagogy	200/400

i) If any candidate fails even under one head, he/she has to re-appear for whole examination.

ii) Theory papers consist of 2 essay questions of 25 marks each (2 X 25 = 50) & 5 short notes of 10 marks each (5 X 10 = 50). Total =100 marks each.

**\*Sl.No.22 (ii) Amended vide XVIII meeting of Academic Council Dated**

**15.04.2014 and to be replaced as detailed below:**

**Resolved to approve 2 Essay Questions (2 x 20 marks) and 10 short notes (10 x 6 marks) for all post graduate medical / broad and higher speciality courses which will take effect for the students appearing for first time examination from March 2015.**

**Resolved to approve 2 essays (2 x 20 marks) and 6 short notes (6 x 10 marks) for theory paper in all M. D/ M.S. courses by the Academic Council in its XX meeting held on 25.03.2015.**

**\*Resolved to approve that an examinee should obtain minimum 40% marks in each theory paper and not less than 50% marks cumulatively in all the four papers in P.G. degree examination to be cleared as passed which will be implemented prospectively. (Academic Council in its XX meeting held on 25.03.2015).**

### **23. EXAMINERS:**

All the Post Graduate Examiners shall be recognized Post Graduate Teachers holding recognized post graduate qualification in the subject concerned. For all Post Graduate Examinations, the Minimum number of examiners shall be Four, out of which at least two (50%) shall be external examiners who shall be invited from other recognized universities from outside the state / outside university. The remaining two will be internal examiners.

The qualification and teaching experience for appointment of examiner shall be as detailed below and by the guidelines of Medical Council of India issued from time to time.

No person shall be appointed as an internal examiner in any subject unless he/she has three years experience as recognized PG teacher in the concerned subject. For external examiners, he/she should have minimum six years of experience as recognized PG teacher in the concerned subject'. "An examiner shall ordinarily be appointed for not more than two consecutive terms"

Under exceptional circumstances, examinations may be held with 3 (three) examiners provided two of them are external and Medical Council of India is intimated for the justification of such action prior to publication of result for approval. Under no circumstances, result shall be published in such cases without the approval of Medical Council of India.

### **24. MAXIMUM NUMBER OF CANDIDATES:**

The maximum number of candidates to be examined in clinical/practical and oral on any day shall not exceed eight for M.D. Pre and Para Clinical Courses.

### **25. \*NUMBER OF EXAMINATIONS:**

The University shall conduct not more than two examinations in a year, for any subject, with an interval of not less than 4 and not more than 6 months between the two examinations. The examination shall be conducted in September and March.

**\*SI. No.25 Amended in XXI meeting of Academic Council dated 22.07.2015**

**Resolved to approve the commencement of M.D. /M.S. University examination in April (for Regular Batch) and October (for Supplementary Batch).**

**26. REVALUATION OF ANSWER PAPERS:**

There shall be no revaluation of answer papers. However, re-totaling is allowed in the failed subjects with the payment of required fee fixed by the University within 15 days from the date of receipt of statement of marks.

**SYLLABUS  
MD COMMUNITY MEDICINE**

**A. 1. History of Public Health:**

- Historical Lessons Learnt from the success and failure of Public Health strategies in India.
- Historical influence and importance of Indigenous System of Medicines in Health Care in India.
- Historical Review of Implementation of the Bhore committee's and other Committee Reports on Health Services, Health Care and Health Professional Education in India.
- Historical Review of the development of National Health Policies.
- The trend of achievements of the country vis-à-vis the Health for All concept.
- Study of development of Health System models in India
- Contribution of Important scientists for public health

**2. Concepts in Public Health:**

- Concept of Disease control strategies.
- Public Health importance of the Health Promotion Approach.
- Concept of Health for All, Millennium development goals.
- Multi-sector approach in Health care programs.
- Health Care as part of Community Development
- Advantages of Community Participation in health care programs.
- Changing patterns of diseases.

**3. Primary Health Care:**

- Need and importance for prioritizing of Primary Health Care
- Principles of Primary Health Care
- Elements of Primary Health Care
- Models of Delivery of Primary Health Care & Public health care in UK, USA

**4. The Health Care Systems in India:**

- Organizational Structure and Functions of the Govt. Health care System at the Central, State, district, Primary Health centre, Community Health Centre, Peripheral areas as also the urban areas.
- Health Care systems for Factories / Mines / Plantations.
- Role of N.G.O. sector in health care system.
- Corporate and Private Health Insurance systems.
- Family Medicine, General Practitioners.
- Indigenous Medicine system.
- Feasibility of Networking the Govt. and NGO sectors (Public Private Partnership) for better coverage of health programs.

### **5. Role of Social sciences in Health:**

- Need and Importance and Role of Medico- Social work in Public Health
- Behavioral sciences – Health Seeking Behavior in implementing Health care programs.
- Meaning and relationship of Behavioral Sciences to Health.
- Principles of Social Psychology as applicable to Health.
- Principles of social Anthropology as applicable to Health Sociology
- Relevance and use of Social structures, social organizations and cultural factors in addressing problems in Health as part of Community Development.
- Influence of social & cultural factors in Health & disease
- Social problems in health & disease
- Gender based issues and its relevance to impact of health care programs.
- Impact of Urbanization and Industrialization on Health.
- Difference between Advising and Counseling
- Importance of Motivation in Health care.

### **6. Health Legislation:**

- Review of provisions available under the various Acts related to health. This covers MCH, Industries, Mines, hospitals, plantations, labor, adoption, rail /road /air travel, waste treatment, child labor, handicapped, food safety, housing and public utilities, pollution, reporting of notified diseases, quarantine, medical negligence, etc.

### **7. Urban Health:**

- Accessibility of health care Facilities.
- Health advisory Role on Water and Waste Treatment planning Boards.
- Recommendations on Pollution control planning and monitoring systems, as related to Health.

- Urban Ecology such as housing, slum formations, social issues, road safety, urban stress factors, micro-climatic changes, etc which impact all dimensions of health.

### **8. Principles of Educational Science and Technology:**

- Curriculum Planning, Educational Objectives.
- Principles of Learning.
- Teaching / Learning methods.
- Teaching skills including Micro Teaching.
- Pedagogy Skills
- Preparation and Use of Teaching Aids and Learning Research Materials.
- Methods of Evaluation

### **9. Principles and Practice of Information, Education and Communication:**

- Principles of IEC / Health Education / communication for behavioral change
- Objectives of Health Education
- Content of Health Education.
- Relevance of using Communication Methods in the implementation of Health care.
- Meaning of Communication.
- Principles of effective Communication, relevant to health.
- Communication Blocks/ barriers and means of overcoming the blocks.
- Communication strategies for facilitating effective implementation of Health programs at individual and community levels.
- The use and influence of Mass Media for IEC.
- Practice (Methods) of IEC and its application in Community Health.
- Quantitative and Qualitative Evaluation of impact of IEC programs.

### **10. Principles of Nutrition and Applied Nutrition:**

- Nutrients and their daily Requirements.
- Classification of Foods
- Balanced Diet
- Nutritional Profiles of Major Foods
- Nutritional Deficiencies & Nutritional disorders
- Protein Energy Malnutrition
- Nutritional Importance of Trace elements
- Assessment of an individual's Nutritional Status
- Assessment of Community Nutritional Status
- Nutritional Problems in India including Food Borne Diseases
- Community Nutritional Programmes in India
- Methods and impact of nutritional Surveillance

- Social Problems in Nutrition
- Food Hygiene – domestic and commercial levels
- Food Adulteration including PFA Act - review of implementation
- Primordial Prevention of Lifestyle related nutritional diseases.
- National Nutritional policy, Food security

### **11. Environmental Health:**

#### a) Water

- Applied importance of Sources of water
- Water Pollution and review of control and monitoring methods
- Purification of water and its storage and distribution
- Water quality standards – its implementation and monitoring
- Epidemiology and Control of Water borne diseases
- Epidemiological Investigation of outbreak of water borne disease
- Rain water harvesting / water conservation.

#### b) Air

- Indices of thermal comfort and their applied importance
- Air Pollution including monitoring, control and prevention
- Ventilation and its applied importance

#### c) Importance of domestic and industrial Housing standards

#### d) Impact and control of Noise Pollution

#### e) Radiation Hazards from natural, industrial, hospital, communication devices

#### f) Meteorological Environment and its Health impact

#### g) Domestic and industrial Lighting Standards

#### h) Disposal of Waste and Sanitation

- Disposal of Solid Wastes
- Excreta Disposal
- Sewage treatment and safe recycling guidelines
- Health Care and Hospital Waste Management
- i) Guidelines on Industrial Toxic wastes, nuclear wastes disposal.
- j) Role & importance of pollution control boards.

### **12. Medical Entomology:**

- Identification of the arthropods as classified below:-
- a) Insecta: Mosquito, Flies, Lice, Fleas, and other insects.
- b) Arachnida: Ticks and Mites
- c) Crustacea: Cyclops
- Diseases transmitted and Modes of Transmission of diseases by arthropods
- Control of Arthropods and diseases borne by them
- Integrated Vector Control
- Types, Mode of application and effectivity of Insecticides & Rodenticides.
- Types and mechanism of Insecticide Resistance and modes of Resistance prevention



### **13. Communicable diseases : Epidemiology, prevention & control of Diseases:**

#### **Respiratory Infections**

- Small pox
- Chicken pox
- Measles
- Mumps
- Rubella
- Influenza
- Diphtheria
- Whooping cough
- Meningococcal meningitis
- Acute respiratory infections
- SARS
- Tuberculosis
- Others

#### **Intestinal Infections**

- Poliomyelitis
- Viral Hepatitis
- Cholera
- Acute Diarrhoeal diseases
- Typhoid fever
- Food Poisoning
- Amoebiasis
- Ascariasis
- Hookworm infection
- Dracunculiasis
- Others

#### **Arthropod-borne Infections**

- Dengue syndrome
- Malaria
- Lymphatic filariasis
- Others

#### **Zoonoses**

##### ***Viral***

- Rabies
- Yellow fever
- Japanese encephalitis
- KFD
- Others

**Bacterial**

- Brucellosis
- Leptospirosis
- Plague
- Human salmonellosis
- Others

**Rickettsial diseases**

- Rickettsial Zoonoses
- Scrub typhus
- Murine typhus
- Tick typhus

**Parasitic Zoonoses**

- Taeniasis
- Hydatid disease
- Leishmaniasis
- Q fever
- Others

**Surface Infections**

- Trachoma
- Tetanus
- Leprosy
- Others
- STD
- AIDS
- Yaws

**Emerging and Re-emerging infectious diseases****Hospital Acquired Infections****14. Epidemiology of Chronic Non communicable diseases and Conditions:**

- Cardiovascular diseases
- Coronary Heart disease
- Hypertension
- Stroke
- Rheumatic heart disease
- Others
- Cancer
- Diabetes
- Obesity

- Blindness
- Accidents and Injuries

### **15. Principles of Tropical Medicine:**

- Present problem statement of diseases of public health importance.
- Descriptive epidemiological factors of specific diseases of public health importance.
- Causes and factors related to increasing or decreasing trends of these diseases.
- Factors responsible for emergence of new diseases.
- Review of changing disease control strategies for specific diseases of public health importance.
- Accessibility and availability of Health Care services in Desert and Tribal areas

### **16. Maternal and Child Health Care:**

- Meaning and relevance of Risk Approach to Maternal and Child Health
- Review of the public health relevance of Maternal and Child health physical, mental, social and behavioral problems
- Rationale, Components and Implementation of Antenatal, Intranatal and Postnatal Care
- Rationale, Components and Implementation of Child Health Care
- Maternal and Childhood Disease control strategies
- Indicators of MCH care and their interpretation

### **17. Organizational and Functional components of the Maternal and Child Health Services Program in India:**

- Review of MCH related programmes in India. Eg. RCH, ICDS, Integrated Management of Neonatal & Childhood Illness (IMNCI) etc.

### **18. Family Welfare Services in India:**

- Meaning and relevance of Family Planning, Family welfare and Population Control
- Methods of Family Planning – Review of mechanism, effectivity, factors for non-compliance of usage, contraindications and side-effects.
- Formulation and Evaluation of Implementation strategies of Family planning programs.
- National population policy.
- Legislations

### **19. Demography:**

- Significance of Demography in public health
- Interpretation and implications of Demographic Cycles on global and Indian context.
- Demographic trends in India and its application in the planning of Health programmes
- Fertility indicators

### **20. Genetics and Health:**

- Relevance and Impact of population Genetics
- Preventive and Social Measures in Genetics
- Implication of Gene therapy, Stem-cell research on future disease control program strategies.

### **21. School Health Services:**

- Objectives of school health services
- Planning for components of school health service and their implementation strategies (including child – parent – teacher and community roles)
- School level counseling for chronic absenteeism, drug abuse, and gender based issues, behavioral and learning problems.
- Monitoring Health of school children and school staff

### **22. Social Paediatrics:**

- Interventional strategies for Juvenile Delinquency, Child Abuse, Child Labour, Street Children, Child Marriage.
- Child Guidance Clinic
- Child Placement
- Disabled / Handicapped children

### **23. Biostatistics:**

- Collection / Organization of data / Measurement scales
- Presentation of data and Record keeping
- Measures of central tendency
- Measures of variability
- Sampling and Planning of health survey
- Probability, Normal distribution and inductive statistics
- Estimating population values
- Tests of significance (Parametric / Non-parametric)
- Analysis of variance

- Multi-variate Analysis and Meta analysis
- Association and correlation and Regression
- Vital Statistics & Registration
- Evaluation of health and measurement of morbidity / mortality
- Life table and its uses
- Use of computers (SPSS, Epi-info etc)
- Census, SRS
- Qualitative Research methodologies
- Evaluation methodologies

#### **24. Principles and Application of Epidemiology:**

- Principles of Epidemiology
- Types and detailed methodologies of Epidemiological studies such as Descriptive, Analytical, Experimental and importance of Multi-Centric studies.
- Appropriate choice of epidemiologic approach for given situations.
- Interpretation of Epidemiological studies.
- Screening for diseases, Evaluation of screening tests.

#### **25. Research Methodology:**

- Preparing dissertation synopsis
- Identifying need for research study
- Problem statement
- Formulating Objectives
- Methods of Literature Review ( References and Bibliography )
- Conceptual framework of study
- Research design choice
- Choice of Methodologies
- Analysis and discussion and presentation

#### **26. National Health Programs:**

- Components of individual National health Programs
- Review of factors associated with the success / failure / stagnation of the present status of these National Health Programs.
- Needs Assessments for New Programmes

#### **27. Community Mental Health:**

- Principles of Community Mental Health
- Epidemiological factors associated with the current and emerging mental disorders of public health importance.
- Emerging mental health issues of marital, family-based problems, travel related, migration, resettlement and urbanization problems.

- Planning and Intervention strategies for community based mental health programs
- Drug Abuse, Tobacco and Alcohol Addiction and its Prevention.

### **28. Occupational Health:**

- Relevance of Occupational Environment to Health Hazards
- Surveying for identifying Industrial Health hazards
- Surveying for identifying Health Hazards in Home based cottage Industries.
- Basic Principles of Ergonomics and Work- Physiology and their application in Occupational Health Intervention Programs.
- Relevance and meaning of Industrial Toxicology in the management of Health hazards.
- Understanding the Basic Scope of Occupational health Legislation such as ESI Act, Factories Act, Mines Safety Act, etc.
- Causes, consequences and Intervention Strategies for occupation related diseases of public health importance.
- Principles of Industrial Safety measures and Industrial house-keeping.
- Causes and reduction of Sickness Absenteeism.
- Principles of Industrial Psychology including work related stress management.
- Gender Issues in work environment.
- Providing Social security for industrial workers by the Industrial
- Corporate Sector in view of Globalization and Outsourcing of work.

### **29. Health care of the Aged:**

- Public health implications of increasing trends in longevity of life.
- Health planning strategies for enhancing quality of life of senior citizens.
- Need, relevance and components of Community Based Geriatrics care Programs.
- Social Security for the Aged.

### **30. Health care for the Challenged:**

- Vulnerability factors in health, for the physically and Socioeconomically challenged people.
- Intervention strategies for desired Behavioral change in the community, towards the physically challenged.
- Multi-disciplinary approach in the health care of the physically challenged.
- Community Based Rehabilitation for the physically challenged

### **31. Voluntary Sector in Health:**

- Understanding the Supplementary, Complementary and Substitution Roles of the Voluntary Sector in Health Care.
- Case Studies of Health care strategies adopted by NGOs.
- Networking strategies for Govt. and NGO sectors in Health Program implementation

### **32. Health Care Management:**

- Relationship of Planning to Management
- Situational Analysis Methods
- Vision, Mission, Goal setting and objective formulation
- Criteria setting for Prioritization
- Resource Generation Methods
- Strategies Formulation
- Participatory Approaches to plan execution
- Monitoring and Evaluation Parameters selection and implementation
- Project Report Writing and Reporting
- Selected Management Techniques relevant to Health care.
- Relevance of Qualitative methods in Health Management
- Basics of Health Economics
- Importance of Operation Research Methods in Health care Management.
- Basis of Health Systems Research.

### **33. Health Information System.:**

- Uses of Health Information System in Health planning including Situational analysis, Prioritization, Monitoring and Evaluation.
- Sources and methods of data acquisition.
- Applications of health information on National and International Notification of Diseases.
- Use of Internet and Intranets including NICNET, etc.

### **34. Disaster Management and public health emergencies:**

- Brief Review of definition, types and causes of Disaster.
- Understanding the short and long term Health Impact of Disasters
- Assessing priorities for Disaster Response.
- Planning for Administrative, Operational, Technical Intervention for Disaster Relief program including Multi-Sectoral Co-ordination.
- Community Disaster Preparedness training needs for Health Providers and Beneficiaries.
- Post Disaster Follow up care

### **RECENT ADVANCES AND TOPICS OF CURRENT INTEREST**

(Topics may be extracted from individual area of Syllabus content above.)

- Components of National Health Policy
- Importance of Health seeking Behavior
- Basis of formulating rational drug policy
- Relevance of Evidence Based Medicine in the planning of Disease control Programs
- Use of Computers in Public Health
- Principles of Counseling
- Role of Clinical Specialists in Community Health Care Programs
- Writing of a Research Protocol.
- Nosocomial infection and Hospital Infection Control
- Impact of Macro-Climatic changes (eg: Global Warming, etc) on Health.
- Organizing health component of Relief camps during war, mass migration.
- Setting up and Implementing Quality Control of Health care programs.
- Planning of public Health measures during pandemics of new diseases.
- Selected Methods in Operation Research.

### **Other Free Topics**

Insurance and Health

Development of Appropriate Technologies which is Cost Effective

National Rural Health Mission (NRHM)

Concept of Hospital Management / System

Modern Management Approaches.

Human Resource Management

Problem Solving Approaches and Managerial Decision Making.

Material Management,

### **B.COURSE CONTENTS FOR PRACTICALS**

1. Microbiology applied to Public Health ( Dept. of Microbiology)  
Hand on experience in staining techniques and interpretation of:
  - Grams Stain
  - JSB Stain
  - Ziehl-Neilson Stain
  - Peripheral blood examination of Thick and Thin Smears and Reporting
  - Microscopic examination of stools and interpretation
  - Demonstration of Collection, storage and Dispatch of water, stools, body fluids Samples to Laboratory
  - Interpretation of commonly used serological tests such as Physical / Biological / Chemical water analysis reports / Widal / HIV / Hepatitis B/ VDRL/ Viral Antibody Titres
2. Medical Entomology



- Demonstration of Collection and transportation of Entomological specimens
  - Identification of mosquitoes/fleas/ticks/others
  - Demonstration of mounting entomological specimens and reporting
  - Interpretation of Entomological Survey findings and Vector indices Calculation
3. Epidemiological ( including outbreaks of disease ) and Statistical Exercises
  4. Clinico Social Case Studies and family studies to illustrate principles and practice of Community Health
  5. Investigation of an Outbreak of a disease and suggested control Measures.
  6. Field and simulated Exercises in
    - PRA Techniques and Interpretive Reporting
    - IEC Field Exercises organization, execution and evaluation
    - Planning for simulated public health intervention programs including disaster relief measures.
    - VED Analysis etc.
    - Assessment of Health Needs.
    - Simulated exercises in Preparation of Budgeting at the PHC level
    - Demonstration of Supervisory methods and Performance Appraisal at PHC/SC and field level.
    - Simulated calculation of Requirement of Vaccines, Medicines, transport schedules, lab supplies, equipment , staff deployment, stationary, etc. at the PHC level
    - Simulated exercises for Organization of field and centre based camps for Family Welfare, MCH, IEC, Specialist Camp, Immunization camps.
  7. Diet and Nutritional Survey of a Community
  8. Collection and Dispatch of Food Samples for Lab Investigations
  9. Situational analysis of selected potentially health hazardous Environments and its influence on health
  10. Industrial Health Survey and recommendation reports for Industrial and homebased Work places. Include interpretation of reports quantifying air pollution, noise pollution, temperature, humidity and other meteorological factors and their effect on health.
  11. Socio-Economic surveys in Urban and Rural areas and their interpretation on direct and indirect health care needs and usage.
  12. School Health Surveys with recommendations.

13. Observation of Family Counseling by MSW

14. Situational status ( organizational structure and functioning with feasible recommendations ) Reporting on Visits/Postings to the following institutions

- District Health Office
- District Hospital
- Taluk Hospital
- PHC/SC/CHC
- Field Publicity Office
- ICDS office/ Anganwadi Centre
- Public Health Laboratory
- Sewage Treat Plant
- Vector control centre (Hosur)
- Any large NGO
- UFWC
- Family Welfare Camps
- Infectious disease hospital
- Malaria/DTC/ Filaria units
- National Tuberculosis Institute / DOTS centre
- Lepratorium
- Cancer Hospital
- Malaria Research Centre
- Polio Surveillance Office
- Visit to factory / inspectorate of factories
- Home for the aged
- Blindness Rehabilitation schools
- Deaf and Dumb schools
- Spastic society
- Physically Handicapped Centre
- Market place
- Slaughter House
- Hotel food storage, cooking and food waste disposal zones.
- Milk Dairy
- Water supply and water treatment plant
- Food and Beverages Processing Units

**15. Postings to Urban and Rural Health Centres with emphasis on:-**

- Observing and participation in Antenatal care
- High risk pregnancy identification
- Registration and participation in care of Antenatal and under-fives
- Nutrition Status calculation, Growth and Development monitoring through analysis of cumulative under-five and Antenatal cards and follow-up programs for drop-outs, etc.

- Records design, recording procedures, data compilation and Reporting procedures for National health programs
- Disinfection and Infection control methods
- Field visits with peripheral health care staff to review problems associated with Implementation of Health programs.
- Participation in organization and management of health camps.
- Observation and reviewing methods of motivating for Family welfare.
- Health Information preparation using MCH indicators and their interpretation.
- Measuring Health care service Utilization rates for the centre.
- Observation and participation in the Laboratory work with emphasis on result interpretation.
- Medical Waste management observation and review report.
- Immunization coverage calculation and follow up.
- Cold Chain observation upto vaccine administration at field level.
- Collection and dispatching and follow-up for Vaccine Potency testing.

### **TRAINING ACTIVITIES:-**

The entire training and the facilitation of the learning process will be aided through the following methods of learning:

1. Assignment writing.
2. Presentation for joint discussions of Field and centre activity Review reports and Work- diary analysis
3. Lecture discussions
4. Practical Demonstrations
5. Field visits – Family Studies / Clinico-Social Case Studies / Site Visits
6. Institutional visits
7. Seminars
8. Journal Clubs
9. Epidemiological Exercises
10. Supervised Training of undergraduates including Lesson Planning
11. Involvement in Specific Departmental Project works
12. Conducting of Surveys / epidemiological projects

### **Log book :-**

- The log book is a record of the important activities and their critical review by the candidates during his training.
- The log book entries record includes academic activities, the presentations and procedures and feed-back, carried out by the candidate as well as encountered Problems/Alternative solutions/ innovation / organizational work / recommendation by student / Intersectoral work/ self assessment done.
- Internal assessment should be based on the evaluation of the log book

review. Collectively, log books are a tool for the evaluation of the training programme of the institution by the University.

1. Self Evaluation--Through daily Work Diary
2. Faculty Evaluation --Through scrutiny of work diary by Head of Dept and staff
3. Technique of skills in Pedagogy - Through lesson plans and supervised taking of classes for undergraduates
4. Skill evaluation - through demonstration and Practicals and field reports
5. Knowledge Evaluation-- through journal clubs, seminars and tests. Please see Model Check Lists in Chapter IV.

### **Dissertation (guidelines to student) (Please see also Sl.No.9, Chapter - I)**

- Step 1 Identifying guide and co guide
- Step 2 Review of available literature
- Step 3 Short listing of topic of interest
- Step 4 Workup in detail on few topics keeping in mind the feasibility and discussion at the dept level
- Step 5 Selection and finalization of the topic and submission of protocol
- Step 6 Preparation and submission of synopsis six months after the date of admission and as notified by the University
- Step 7 Preparation of study instrument
- Step 8 Pilot survey
- Step 9 Finalizing the study
- Step 10 Data collection
- Step 11 Data entry, compilation and processing
- Step 12 Analysis and interpretation
- Step 13 Presentation and Discussion at the Dept level
- Step 14 Preparation and submission of dissertation to Registrar Evaluation six months prior to university examination as notified by the University

### **SCHEME OF EXAMINATION**

#### **A. Theory written Examination**

There shall be four question papers, each of three hours duration. Each paper shall consist of two long essay questions each question carrying 20 marks and 6 short essay questions each carrying 10 marks. Total marks for each paper will be 100. Questions on recent advances may be asked in any or all the papers.

#### **Paper I: Basic Sciences including Biostatistics in Community Medicine :-**

- History of Public Health and Community Medicine.
- The Role of Social Sciences health in concepts of Public Health, Primary Health

Care.

- Information, Education, Communication and Counseling.
- Microbiology including Entomology, Parasitology, Immunology and Zoonotic diseases.
- Environmental health and Ecology.
- Epidemiology, Biostatistics and Research methodology.

**Paper II: Community Medicine / Epidemiology as applied in Community Health:-**

- Principles of Nutrition and Applied Nutrition.
- Epidemiology of communicable diseases and non-communicable diseases.
- Occupational health.
- National Health Programmes.
- Public Health emergencies and Disaster management.

**Paper III: Health Care of Special groups and family medicine :-**

- Maternal health and Child health Care.
- Demography and Family welfare.
- Cares of special groups viz. school health, adolescent health, and Health care of the Aged.
- Care of challenged, Community based Rehabilitation
- Tribal health, Reaching health care for the unreached.
- Public Health emergencies and calamities.
- Social Pediatrics
- Community Mental Health.
- Genetics and Health

**Paper IV: Public Health Administration and Management Sciences including Recent Advances**

- Health Care systems in India.
- Health care delivery.
- Health legislation.
- International Health.
- Voluntary Health Organizations, NGOs.
- City/Town planning and Health.
- Health care management.
- Health information system.

**B. PRACTICALS 300 marks**

**1. Family Study : (One) (100 marks)**

One family will be allotted in rural/urban field practice area. Presentation and discussion will be on the health status of the family and of any case/individual in the family and on factors that contributed towards maintenance of health and occurrence of disease; management at individual, family, and community levels.

**2. Clinico-social case study (Two case) (80 marks)**

Basic clinical presentation and discussion of diagnosis, treatment and management of common communicable or non-communicable diseases/conditions with emphasis on social and community aspects.

**3. Public Health Laboratory (Two) (20 marks)**

Staining of smears, interpretation of common serological diagnostic tests, water, & milk analysis or interpretation of given results of any above tests.

**4. Problem on Epidemiology and Biostatistics (Four) (80 marks)**

Based on situation analysis from communicable or non-communicable diseases, MCH & FP including demography. Environmental health including Entomology and Occupational Health.

**5. Spotters (Five) (20 marks)**

Identification and description of relevant public health aspects of the spotters/specimen by the student. Spotters shall be from Nutrition, Environmental health including Entomology & Occupational health, MCH & FP; Microbiology including parasites; vaccines, sera and other immunobiologicals.

**VIVA-VOCE:**

**1) Viva-Voce Examination: (50 Marks)**

Students will be examined by all the examiners together about student's comprehension, analytical approach, expression and interpretation of data. Student shall also be given case reports, charts for interpretation. It includes discussion on dissertation.

**1. Pedagogy Exercise: (50 Marks)**

A topic be given to each candidate along with the Practical Examination question paper on the first day. Student is asked to make a presentation on the topic on the second day for 20 minutes.

D.  
Max. Marks in M. D.  
Community Medicine

**RECOMMENDED BOOKS and JOURNALS (latest editions / issues)**

1. Maxcy Roseman John M.Last, Maxcy-Roseman Public Health and Preventive Medicine, Appleton-Century-Crofts, Newyork
2. Hobson W, The Theory and Practice of Public Health, Oxford Med.Publication
3. Barker D J P, Practical Epidemiology, Churchill Livingstone
4. Park J E & K.Park, Text Book of P & S.M., M/S Banarsidas Bhanot, Jabalpur
5. Mahajan B K and M.C.Gupta, Text Book of P & S.M., Jaypee Publications
6. Bradford Hill, Principles of Medical Statistics, The Lancet Ltd. No. 7 Adam Street, Adelphine, London, 1967
7. John J. Hanlon, Public Health Administration and Practice, MOSBY
8. Mac, Mahon & Pugh, Epidemiology-Principles and Methods, Little Brown & Co.Boston, U.S.A.
9. Robert S.Goodheart Maulice E.Shills, Modern Nutrition in Health, K.M.Varghese & Co.,
10. Mawner & Kramer, Epid : An Introductory Text, 1985, W.B.Sanuders Co.,
11. Hunter's Diseases of Occupations, Edited by P.A.B Raffle, P.H. Adams, P.J.Baxter and W.R.Lee Edward Arnold Publishers (1994), Great Britain
12. Indraya A, Satyanaryana L, Biostatistics for MBBS, PG Entrance and USMLE. 1st Editon, Academia Publishers, Delhi, 2003.
  
13. Last J M. A Dictionary of Epidemiology, 4th Edition, Oxford University Press, New York
14. Kishore J, A Dictionary of Public Health, Century publications, New Delhi, 2003.
15. Beaglehole R, Bonita R and Kjellstrom T. Basic Epidemiology, World Health Organization, Geneva, 1993.
16. Taneja D K. Health Policies and Programmes in India. 5th Ed, Doctors Publication Delhi, 2005.

**COMMITTEE REPORTS AND POLICY DOCUMENTS - MEDICAL EDUCATION AND HEALTH POLICY:**

1. Bhore Committee Report (1946) Health Survey and Development Committee, Govt. of India, Delhi.
2. Mudaliar Committee Report (1961) Health Survey and Planning Committee, Govt. of India, Delhi.
3. Shrivastav Report (1974), Health Services and Medical Education - A programme for immediate action, Group on Medical Education and Support Manpower, Ministry of Health and Family Welfare, Govt. of India, New Delhi.
4. ICSSR/ICMR (1981), Health for All - An alternative strategy - Report of a Joint study group of ICSSR/ICMR, Indian Institute of Education, Pune.
5. National Health Policy, (1982) Ministry of Health and Family Welfare,

Government of India, New Delhi.

6. Compendium of Recommendations of various committees on Health and Development (1943 - 1975), Central Bureau of Health Intelligence (1985) Directorate General of Health Services, Ministry of Health and Family Planning, New Delhi.
7. Bajaj, J.S. et al (1990) Draft National Education Policy for Health Sciences, I.J.M.E. Vol. 29, No. 1 & 2 (Jan - August 1990)

### **Journals:**

1. Indian Journal of Community Medicine.
2. Indian Journal of Public Health.
3. Indian Journal of Community Health.
4. Journal of Communicable Diseases.
5. Indian Journal of Maternal & Child Health.
6. Indian Journal of Preventive and Social Medicine.
7. Indian Journal of Occupational Health & Industrial Medicine.
8. Indian Journal of Medical Research.
9. National Medical Journal of India.
10. Indian Journal of Malariology.
11. Indian Journal of Environmental Health.
12. Indian Journal of Medical Education.
13. Journal of Indian Medical Association.
14. Journals of Medicine, Paediatrics, OBG, Skin & STD, Leprosy, Tuberculosis & Chest Diseases (For Reference).

### **International journals:-**

1. WHO Publications – All
2. Journal of Epidemiology & Community Health.
3. Tropical Diseases Bulletin.
4. Vaccine.
5. American Journal of Public Health.
6. Lancet.
7. New England Journal of Medicine.

### **ADDITIONAL READING:-**

1. Compendium of recommendations of various committees on Health and Development (1943-1975). DGHS, 1985 Central Bureau of Health Intelligence, Directorate General of Health Services, min. of Health and Family Welfare, Govt. of India, Nirman Bhawan, New Delhi. P - 335.
2. National Health Policy, Min. of Health & Family Welfare, Nirman Bhawan, New Delhi, 1983.
3. Santosh Kumar, The elements of Research, writing and editing 1994, Dept. of Urology, JIPMER, Pondicherry



4. Srinivasa D K et al, Medical Education Principles and Practice, 1995. National Teacher Training Centre, JIPMER, Pondicherry
5. Indian Council of Medical Research, "Policy Statement of Ethical considerations involved in Research on Human Subjects", 1982, I.C.M.R, New Delhi.
6. Code of Medical Ethics framed under section 33 of the Indian Medical Council Act, 1956. Medical Council of India, Kotla Road, New Delhi.
7. Francis C M, Medical Ethics, J P Publications, Bangalore, 1993.
8. Indian National Science Academy, Guidelines for care and use of animals in Scientific Research, New Delhi, 1994.
9. Internal National Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, N Engl J Med 1991; 424-8
10. Kirkwood B R, Essentials of Medical Statistics, 1st Ed., Oxford: Blackwell Scientific Publications 1988.
11. Mahajan B K, Methods in Bio statistics for medical students, 5th Ed. New Delhi, Jaypee Brothers Medical Publishers, 1989.
12. Raveendran B Gitanjali, A Practical approach to PG dissertation, New Delhi, J P Publications, 1998.

#### **OCCUPATIONAL HEALTH:-**

1. Hunter (Donald), Diseases of the Occupations, 6th edition, Hodder and Stoughton (1978)
2. Schilling (1978), Occupational Health Practice, Butterworth & Company, Great Britain
3. Plunkett (E.R), Occupational Diseases, Barret Book Company, Stanford (1977)
4. Johnstone (R.T), Occupational Diseases and Industrial Medicine, Saunders, Philadelphia (1960)
5. French (Geoffrey), Occupational Health, Medical Technical Publishers, Lancaster
6. Mayers (May R), Occupational Health etc., Williams and Wilkins, Baltimore (1969)
7. Government of India, Ministry of HRD, Occupational Health : issues of women in the unrecognised sector, New Delhi (1988)
8. Plunkett (E.R), Handbook of Industrial Toxicology, 3rd Edition, Arnold Publishers, USA (1987)
9. Charles Wn Sharp and L Thomas Carroll, Voluntary Inhalations of Industrial Solvents, U.S. Department of Health, Education and Welfare, National Institute on Drug abuse, U.S.A. (1978)
10. Patrick Kinnersly (1979), The Hazards of Work, How to fight Them, Pluto Press, U.K.
11. Plunkett (E.R) (1977), Occupational Diseases, A Syllabus of Signs and Symptoms, Barret Book Company, Stamford, Connecticut (1977)
12. Edited by Robert J.Mc Cunney, Handbook of Occupational Medicine, Little Brown and Company, Boston/Toronto (1988)
13. WHO (1986) Geneva, Early detection of Occupational Diseases.
14. Hunter's Diseases of Occupations, Edited by P.A.B Raffle, P.H. Adams, P.J.Baxter and W.R.Lee Edward Arnold Publishers (1994), Great Britain
15. Carl Zenz (1994), Occupational Medicine, 3rd Edition Mosby, U.S.A.

16. ILO Publications Geneva, Encycloperia of Occupational Health & Safety,  
(1983) 3rd Edition Vol. 122

**MD COMMUNITY MEDICINE**  
**SCHEME OF THEORY EXAMINATION**

**PAPER I**

Basic Sciences including Biostatistics in Community Medicine

**PAPER II**

Community Medicine/Epidemiology as applied in Community Health

**PAPER III**

Health care of special groups and Family Medicine

**PAPER IV**

Public Health Administration and Management Sciences including Recent Advances

**MD COMMUNITY MEDICINE**

**FIRST YEAR :**

Exposure to child health, Obstetrics & gynaecology, general medicine, communicable diseases, dermatology, Psychiatry.

Preferably a minimum of six weeks in each of these areas. A total of 36 weeks.

**SECOND YEAR :**

Exposure to primary health care, Maternal & Child health and family Welfare. Family practice, occupation health and environmental health.

Preferably a minimum period of six weeks in each of these areas. A total of 36 weeks.

**THIRD YEAR:**

Exposure to the health management techniques and health economics, primary health care, urban health centers, Tribal health services, district health services and various national control programmes with special reference to the organization, monitoring and evaluation of these programmes.

This is to be implemented either through posting in these areas or field visits.

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