

# **Third Professional**

## **III MBBS Part -1**

**Following Subjects are  
included**

- 1. Ophthalmology**
- 2. Oto-rhino-laryngology**
- 3. Community Medicine**

## **General Rules:**

### **Examination Regulations:**

#### **Essentialities for qualifying to appear in professional examinations.**

The performance in essential components of training are to be assessed, based on:

#### **(1) ATTENDANCE**

75% of attendance in a subject for appearing in the examination is compulsory provided he/she has 80% attendance in non-lecture teaching i.e. seminars, group discussions, tutorials, demonstrations, practical, Hospital (Tertiary, Secondary, and Primary) postings and bed side clinics, etc.

#### **(2) Internal Assessment:**

- (i) It shall be based on day to day assessment (see note), evaluation of student assignment, preparation for seminar, clinical case presentation etc.:
- (ii) Regular periodical examinations shall be conducted throughout the course. The questions of number of examinations are left to the institution:
- (iii) Day to day records should be given importance during internal assessment:
- (iv) Weightage for the internal assessment shall be 20% of the total marks in each subject:
- (v) Student must secure at least 35% marks of the total marks fixed for internal assessment in a particular subject in order to be eligible to appear in final university examination of that subject.

#### **Note:**

Internal assessment shall relate to different ways in which student's participation in learning participation in learning process during semesters in evaluated.

Some examples are as follows:

- (i) Preparation of subject for student's seminar.
- (ii) Preparation of a clinical case for discussion.
- (iii) Clinical case study/problem solving exercise.

- (iv) Participation in Project for health care in the community (planning stage to evaluation).
- (v) Proficiency in carrying out a practical or a skill in small research project.
- (vi) Multiple choice questions (MCQ) test after completion of a system/teaching.

Each item tested shall be objectively assessed and recorded. Some of the items can be assigned as Home work/Vacation work.

### **(3) UNIVERSITY EXAMINATIONS:**

Theory papers will be prepared by the examiners as prescribed. Nature of questions will be short answer type/objective type and marks for each part indicated separately.

Practicals/clinicals will be conducted in the laboratories or hospital wards.

Objective will be assess proficiency in skills, conduct of experiment, interpretation of data and logical conclusion. Clinical cases should preferably include common diseases not esoteric syndromes or rare disorders. Emphasis should be on candidate's capability in eliciting physical signs and their interpretation.

Viva/oral includes evaluation of management approach and handling of emergencies. Candidate's skill in interpretation of common investigative data, x-rays, identification of specimens, ECG, etc. also is to be evaluated.

The examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary for knowledge, minimum skills along with clear concepts of the fundamentals which are necessary for him to carry out his professional day to day work competently. Evaluation will be carried out on an objective basis.

Question papers should preferably be of short structure/objective type.

Clinical cases/practicals shall take into account common diseases which the student is likely to come in contact in practice. Rare cases/obscure syndromes, long cases of neurology shall not be put for final examination.

During evaluation (both Internal and External) it shall be ascertained if the candidate has acquired the skills as detailed in Appendix-B.

There shall be one main examination in a year and a supplementary to be held not later than 6 months after the publication of its results. Universities Examinations shall be held as under:-

**Appendix-B**

**A comprehensive list of skills recommended as desirable for Bachelor of Medicine and Bachelor of Surgery (MBBS) Graduate:**

**[I] ENT Procedures:**

- (a) To be able to remove foreign bodies;
- (b) To perform nasal packing for epistaxis;
- (c) To perform trachesotomy

**[II ]Ophthalmic Procedures:**

- (a) To invert eye-lids;
- (b) To give Subconjunctival injection;
- (c) To perform appellation of eye-lashes;
- (d) To measure the refractive error and advise correctional glasses;
- (e) To perform nasolacrimal duct syringing for potency

**[XI ]Community Medicine:**

- (a) To be able to supervise and motivate, community and para-professionals for corporate efforts for the health care;
- (b) To be able to carry on managerial responsibilities, e.g. Management of stores, indenting and stock keeping and accounting
- (c) Planning and management of health camps;
- (d) Implementation of national health programmes;
- (e) To effect proper sanitation measures in the community, e.g. disposal of infected garbage, chlorination of drinking water;
- (f) To identify and institute and institute control measures for epidemics including its proper data collecting and reporting.

**APPOINTMENT OF EXAMINERS:**

- (1) No person shall be appointed as an examiner in any of the subjects of the Professional examination leading to and including the final Professional examinations for the award of the MBBS degree unless he has taken at least five years previously, a doctorate degree of a recognized university or an equivalent qualification in the particular subject as per recommendation of the Council on teachers' eligibility qualifications and has had at least five years of total teaching experience in the subject concerned in a college affiliated to a recognized university at a faculty position.
- (2) There shall be at least four examiners for 100 students, out of whom not less than 50% must be external examiners. Of the four examiners, the senior most internal examiner will act as the Chairman and coordinator of the whole examination programme so that uniformity in the matter of assessment of candidates is maintained. Where candidates appearing are more than 100, one additional examiner, for every additional 50 or part thereof candidates appearing, be appointed.
- (3) Non-medical scientists engaged in the teaching of medical students as whole time teachers, may be appointed examiners in their concerned subjects provided they possess requisite doctorate qualifications and five year teaching experience of medical students after obtaining their postgraduate qualifications. Provided further that the 50% of the examiners (Internal & External) are from the medical qualification stream.
- (4) External examiners shall not be from the same university and preferably be from outside the state.
- (5) The internal examiner in a subject shall not accept external examiner ship for a college from which external examiner is appointed in his subject.
- (6) A university having more than one college shall have separate sets of examiners for each college, with internal examiners from the concerned college.
- (7) External examiners shall rotate at an interval of 2 years.
- (8) There shall be a Chairman of the Board of paper-setters who shall be an internal examiner and shall moderate the questions.

- (9) Except Head of the department of subject concerned in a college/institution, all other with the rank of reader or equivalent and above with requisite qualifications and experience shall be appointed internal examiners by rotation in their subjects; provided that where there are no posts of readers, then an Assistant Professor of 5 years standing as Assistant Professor may be considered for appointment as examiner.
- (10) The grace marks up to a maximum of five marks may be awarded at the discretion of the University to a student who has failed only in one subject but has passed in all other subjects

**Prescribed Teaching Hours and Suggested Time Tables:-**

Following minimum teaching hours are prescribed in various disciplines:

A. **Pre-Clinical Subjects:**(Phase-I-First and Second Semester)

**Community Medicine** **60 Hrs.**

B. **Para-Clinical Subjects:** (Phase-II-3<sup>th</sup> to 5<sup>th</sup> Semester)

**Community Medicine** **200 Hrs.**

**(including 8 weeks postings of 3 hours each)**

**C. Clinical Subjects**

1. Clinical postings as mentioned below.

2. Theory lectures demonstrations and Seminars etc. in addition to clinical postings as under. The clinical lectures to be held from 4<sup>th</sup> Semester onwards.

**Ophthalmology** **100 Hours**

**ENT** **70 Hours**

**Community Medicine** **50 Hours**

**Time Table:****Sixth,Seventh,Eighth & Ninth Semester**

Days/8-9 Time	9-10	10-11	11-12	12-1	1-2	2-3	3-4
Mon	Lectures In Clinical Subjects	Clinical Postings	Lectures in Demonstration in clinical subjects			Practicals Demonstrations in Clinical Subjects	
Tues	do	do	do		L		
Wed	do	do	do		U	Do	
Thurs	do	do	do			Do	
Fri	do	do	do		N	Do	
Sat	do	do	do		C	Do	
					H		

## **OPHTHALMOLOGY**

### **I) GOAL:**

The broad goal of the teaching of students in ophthalmology is to provide Such knowledge and skills to the students that shall enable him to practice as a clinical and as a primary eye care physician and also to function effectively as a community health leader to assist in the implementation of National Programme for the prevention of blindness and rehabilitation of the visually Impaired.

### **ii) OBJECTIVES:**

#### **a. KNOWLEDGE**

*At the end of the course, the student should have knowledge of*

1. Common problems affecting the eye:
2. Principles of management of major ophthalmic emergencies
3. Main systemic diseases affecting the eye
4. Effects of local and systemic diseases on patient's vision and the necessary action required to minimize the sequelae of Such diseases;
5. Adverse drug reactions with special reference to ophthalmic manifestations;
6. Magnitude of blindness in India and its main causes;
7. National programme of control of blindness and its implementation at various levels
8. Eye care education for prevention of eye problems
9. Role of primary health centre in organization of eye camps
10. Organization of primary health care and the functioning of the ophthalmic assistant.
11. integration of the national programme for control of blindness with the Other national health programmes;
12. Eye bank organization

**b. SKILLS:**

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

1. Elicit a history pertinent to general health and ocular status;
2. Assist in diagnostic procedures such as visual acuity testing, examination of eye, Schiotz tonometry, staining for corneal pathology, confrontation perimetry, Subjective refraction including correction of Presbyopia and aphakia, direct ophthalmoscopy and conjunctival smear examination and Cover test.
3. Diagnose and treat common problems affecting the eye;
4. Interpret ophthalmic signs in relation to common systemic disorders;
5. assist/observe therapeutic procedures such as subconjunctival injection, Corneal/ Conjunctival foreign body removal, carbolic cautery for corneal ulcers, Nasolacrimal duct syringing and tarsorrhaphy;
6. Provide first aid in major ophthalmic emergencies;
7. Assist to organize community surveys for visual check up;
8. Assist to organize primary eye care service through primary health centres;
9. Use effective means of communication with the public and individual to
13. Motivate for surgery in cataract and for eye donation;
10. Establish rapport with his seniors, colleagues and paramedical
14. workers, so as to effectively function as a member of the eye care team.

**c. INTEGRATION**

The undergraduate training in Ophthalmology will provide an integrated approach towards other disciplines especially neurosciences, Otorhino-laryngology, General Surgery and Medicine.

**Clinical postings:**

4<sup>th</sup> Semester                      4 weeks

6<sup>th</sup> Semester                      6 weeks

**Syllabus:**

**Ophthalmology**

INTRODUCTION ANATOMY & PHYSIOLOGY OF THE EYE

COMMON DISEASE OF EYE.

A) Conjunctiva.

Symptomatic conditions: - Hyperemia, Sub conjunctival Haemorrhage.

Diseases: - Classification of Conjunctivitis

: - Mucopurulent Conjunctivitis

: - Membranous Conjunctivitis Spring Catarrh. :- Degenerations :- Pinguecula and Pterigium

B) Cornea: - Corneal Ulcers: Bacterial, Fungal, Viral, Hypopyon.

: - Interstitial Keratitis.

: - Keratoconus.

: - Pannus

: - Corneal Opacities.

: - Keratoplasty.

C) Sclera : :- Episcleritis.

: - Scleritis.

: - Staphyloma.

D) Uvea :- Classification of Uveitis

: - Gen. Etiology, Investigation and Principles Management of Uveitis.

: - Acute & Chronic Iridocyclitis.

: - Panophthalmitis.

: - End Ophthalmitis.

: - Choroiditis.

E) Lens :

I) Cataract – Classification & surgical management of cataract.

: - Including Preoperative Investigation.

: - Anaesthesia.

: - Aphakia.

: - IOL Implant

F) Glaucoma :

- : - Aqueous Humor Dynamics.
- : - Tonometry.
- : - Factors controlling Normal I.O.P.
- : - Provocative Tests.
- : - Classifications of Glaucoma.
- : - Congenital Glaucoma.
- : - Angle closure Glaucoma.
- : - Open Angle Glaucoma.
- : - Secondary Glaucoma

G) Vitreous :

- : - Vitreous. Opacities.
- : - Vitreous. Haemorrhage.

H) Intraocular Tumours :

- : - Retinoblastoma.
- : - Malignant Melanoma

I) Retina :

- : - Retinopathies : Diabetic, Hypertensive Toxaemia of Pregnancy.
- : - Retinal Detachment.
- : - Retinitis Pigmentosa, Retinoblastoma

J) Optic nerve :

- : - Optic Neuritis.
- : - Papilloedema.
- : - Optic Atrophy.

K) Optics :

- : - Principles : V.A. testing Retinoscopy, Ophthalmoscopy.
- : - Ref. Errors.
- : - Refractive Keratoplasty.
- : - Contact lens, Spectacles

L) Orbit :

: - Proptosis – Aetiology, Clinical Evaluation, Investigations & Principles of Management

: - Endocrinal Exophthalmos.

: - Orbital Haemorrhage.

M) Lids :

: - Inflammations of Glands.

: - Blepharitis.

: - Trichiasis, Entropion.

: - Ectropion.

: - Symblepharon.

: - Ptosis.

N) Lacrimal System :

: - Wet Eye.

: - Dry Eye

: - Naso Lacrimal Duct Obstruction

: - Dacryocystitis

O) Ocular Mobility :

: - Extrinsic Muscles.

: - Movements of Eye Ball.

: - Squint : Gen. Aetiology, Diagnosis and principles of Management.

: - Paralytic and Non Paralytic Squint.

: - Heterophoria.

: - Diplopia.

P) Miscellaneous :

: - Colour Blindness.

: - Lasers in Ophthalmology – Principles.

Q) Ocular Trauma : - Blunt Trauma.

: - Perforating Trauma

: - Chemical Burns

: - Sympathetic Ophthalmitis

2) Principles of Management of Major Ophthalmic Emergencies :

- : - Acute Congestive Glaucoma.
- : - C. Ulcer.
- : - Intraocular Trauma.
- : - Chemical Burns.
- : - Sudden Loss of vision
- : - Acute Iridocyclitis.
- : - Secondary Glaucomas

3) Main Systemic Diseases Affecting the Eye :

- : - Tuberculosis.
- : - Syphilis.
- : - Leprosy.
- : - Aids.
- : - Diabetes.
- : - Hypertension

4) Drugs :

- : - Antibiotics
- : - Steroids.
- : - Glaucoma Drugs.
- : - Mydriatics.
- : - Visco elastics.
- : - Fluoresceine.

5) Community Ophthalmology :

- : - Blindness : Definition Causes & Magnitude
- N.P.C.B. – Integration of N.P.C.B. with other health
- : - Preventable Blindness.
- : - Eye care.
- : - Role of PHC's in Eye Camps.
- : - Eye Banking.

6) Nutritional :- Vit. A. Deficiency.

**DISTRIBUTION OF MARKS**

Theory : One paper (should contain one question on pre-clinical and para-clinical aspects, of 10 marks)Oral (Viva)	40 marks
10 marks	
Clinical	30 marks
Internal assessment (Theory-10; Practical-10)	20 marks
Total	100 marks

**Examinations and marks****Internal examinations**

S. No.	Name of examination	Semester	Total marks	Internal assessment marks	Internal assessment marks
				Theory	Practical
1.	Term end exam-	4 <sup>th</sup>	40	2.5	2.5
2.	Term end exam-	6 <sup>th</sup>	40	2.5	2.5
3.	Prelims exam	7 <sup>th</sup>	40	5	5
	<b>Total marks</b>			<b>10</b>	<b>10</b>

**University examinations**

S. No.	Name of examination	Semester	Total marks
1.	University theory exam (one paper)	7 <sup>th</sup>	40
2.	University practical exam	7 <sup>th</sup>	40
3.	Internal assessment marks	6 <sup>th</sup> and 7 <sup>th</sup> semester	20
	<b>Total marks</b>		<b>100</b>

**Structure of theory paper**

There will be one theory university exam of 40 marks and of 2 hours duration.

The marks distribution is as follows:

Question no.	Type of question		Marks
1	Long question	(2 out of 3)	2 X 5=10
2	Short question	(3 out of 4)	3 X 4=12
3	Short question	(3 out of 4)	3 X 4=12
4	Answer in one or two sentences	(6 out of 8)	6 X 1=6

**Structure of practical examination**

There will be one practical university exam of 40 marks.

The marks distribution is as follows:

<i>Case viva</i>	20 mark
<i>Table viva</i>	
Instruments	10 marks
Specimens	10 marks

## **Otorhinolaryngology**

### **GOAL**

The broad goal of the teaching of undergraduate students in Otorhinolaryngology is that the undergraduate students have acquired adequate knowledge and skills for optimally dealing with common disorders and emergencies and principles of rehabilitation of the impaired hearing.

### **OBJECTIVES**

#### **a. Knowledge**

At the end of the course, the students should be able to:

1. Describe the basic pathophysiology of common ENT diseases and emergencies.
2. Adopt the rational use of commonly used drugs, keeping in mind their adverse reactions.
3. Suggest common investigative procedures and their interpretation.

#### **b. Skills**

At the end of the course, the students should be able to:

1. Examine and diagnose common ENT problems including the pre-malignant and malignant disorders of the head and neck.
2. Manage ENT problems at the first level of care and be able to refer whenever necessary.
3. Assist/carry out minor surgical procedures like ear syringing, ear dressings, nasal packing etc.
4. Assist in certain procedures such as tracheostomy, endoscopies and removal of foreign bodies.

#### **c. Integration**

The undergraduate training in ENT will provide an integrated approach towards other disciplines especially neurosciences, ophthalmology and general surgery.

**Otorhinolaryngology syllabus****Practical topics (6<sup>th</sup> Semester)**

1. History taking
2. Ear examination
3. Nose and throat examination
4. Nasal symptoms
5. Case presentation (Deviated Nasal Septum)
6. Case presentation (Nasal polyposis)
7. Throat symptoms
8. Case presentation (tonsillitis and adenoiditis)
9. Tutorial (Tracheostomy)
10. Tutorial (tonsillectomy and adenoidectomy)
11. Tutorial (septoplasty)
12. Case presentation by students
13. Term ending exam

**Theory topics (6<sup>th</sup> semester)**

1. ENT introductory lecture
2. Anatomy of ear (external ear and middle ear)
3. Anatomy of inner ear
4. Physiology of hearing
5. Anatomy of nose and septum
6. Anatomy of lateral wall of nose
7. Physiology of nose and PNS
8. Anatomy of oral cavity and oropharynx
9. Anatomy of pharynx (nasopharynx and hypopharynx)
10. Anatomy of larynx
11. Physiology of larynx
12. Diseases of external nose and nasal cavity
13. Allergic rhinitis

14. Deviated nasal septum (DNS)
15. Nasal polyps
16. Epistaxis
17. Chronic rhinosinusitis
18. CSF rhinorrhoea
19. Complications of sinusitis
20. Nose and PNS tumors
21. Rhinitis
22. Acute tonsillitis
23. Chronic tonsillitis
24. Acute pharyngitis
25. Chronic pharyngitis
26. Adenoiditis
27. Oral ulcers
28. Oral tumors
29. Tumors of nasopharynx
30. Headache and facial pain
31. Neck spaces and infections

**Practical topics (7<sup>th</sup> semester)**

1. Ear symptoms
2. Case presentation of CSOM
3. Case presentation of CSOM
4. Tutorial (tympanoplasty)
5. Tutorial (mastoidectomy)
6. Tutorial (myringotomy)
7. Ear instruments
8. Nose instruments
9. Throat instruments
10. X-Rays
11. Drugs in ENT

12. Specimens
13. Case presentation by students
14. Term ending exam

**Theory topics (7<sup>th</sup> semester)**

1. Diseases of external ear
2. Acute otitis media
3. Chronic otitis media (tubo-tympanic)
4. Chronic otitis media (Attico-antral)
5. Complications of otitis media (extracranial)
6. Complications of otitis media (intracranial)
7. Disorders of Eustachian tube
8. Deafness (conductive)
9. Deafness (SNHL and mixed)
10. Otosclerosis
11. Meniere's disease
12. Anatomy of facial nerve
13. Functions of facial nerve
14. Facial nerve palsy
15. Tinnitus
16. Vertigo
17. Tumors of external ear
18. Tumors of middle ear (glomus)
19. Tumors of inner ear (acoustic neuroma)
20. Acute laryngitis
21. Chronic laryngitis
22. Voice disorders
23. Anatomy of recurrent laryngeal nerve
24. Vocal cord palsy
25. Carcinoma of larynx (etiopathogenesis and symptoms)
26. Carcinoma of larynx (management)

27. Dysphagia

28. Recent advances in ENT (LASER)

29. Assessment of hearing (subjective and objective)

### **Clinical postings**

4<sup>th</sup> Semester            4 weeks

6<sup>th</sup> Semester            4 weeks

*Total*                    *8 weeks*

### **Theory teaching Hours**

70 hours (6<sup>th</sup> and 7<sup>th</sup> Semesters)

### **Examinations and marks**

#### **Internal examinations**

<b>S. No.</b>	<b>Name of examination</b>	<b>Semester</b>	<b>Total marks</b>	<b>Internal assessment marks</b>
1.	Term end exam	4 <sup>th</sup>	40	2.5
2.	Term end exam	6 <sup>th</sup>	40	2.5
3.	Prelims theory exam	7 <sup>th</sup>	40	10
4.	Prelims practical exam	7 <sup>th</sup>	40	5
	<b>Total marks</b>			<b>20</b>

#### **University examinations**

<b>S. No.</b>	<b>Name of examination</b>	<b>Semester</b>	<b>Total marks</b>
1.	University theory exam (one paper)	7 <sup>th</sup>	40
2.	University practical exam	7 <sup>th</sup>	40
3.	Internal assessment marks	6 <sup>th</sup> and 7 <sup>th</sup> semester	20
	<b>Total marks</b>		<b>100</b>



## **Department of Community Medicine**

### **Curriculum**

#### **GOAL:**

The broad goal of the teaching of undergraduate students in Community Medicine is to prepare them to function as community and first level physicians in accordance with the institutional goals.

#### **OBJECTIVES:**

##### **A. KNOWLEDGE**

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

- (1) Describe the health care delivery system including rehabilitation of the disabled in the country;
- (2) Describe the National Health Programmes with particular emphasis on maternal and child health programmes, family welfare planning and population control.
- (3) List epidemiological methods and describe their application to communicable and non-communicable diseases in the community or hospital situation.
- (4) Apply biostatistical methods and techniques;
- (5) Outline the demographic pattern of the country and appreciate the roles of the individual, family, community and socio-cultural milieu in health and disease.
- (6) Describe the health information systems.
- (7) Enunciate the principles and components of primary health care and the national health policies to achieve the goal of 'Health for All'.
- (8) Identify the environmental and occupational hazards and their control.
- (9) Describe the importance of water and sanitation in human health.
- (10) To understand the principles of health economics, health administration, health education in relation to community.

**B. SKILLS**

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

1. Use epidemiology as a scientific tool to make rational decisions relevant to community and individual patient intervention.
2. Collect, analyze, interpret and present simple community and hospital based data.
3. Diagnose and manage common health problems and emergencies at the individual, family and community levels keeping in mind the existing healthcare resources and in the context of the prevailing socio-cultural beliefs.
4. Diagnose and manage maternal and child health problems and advise a couple and the community on the family planning methods available in the context of the national priorities.
5. Diagnose and manage common nutritional problems at the individual and community level.
6. Plan, implement and evaluate a health education programme with the skill to use simple audio-visual aids.
7. Interact with other members of the health care team and participate in the organization of health care services and implementations of national health programmes.

**C. INTEGRATION**

Develop capabilities of synthesis between cause of illness in the environment or community and individual health and respond with leadership qualities to institute remedial measures for this.

## **SYLLABUS**

The entire curriculum of community medicine has been split to be taught into broad groups. First group of curriculum will be covered during phase I (First and second semesters) while second group of curriculum will be covered during phase II & III

(Third semester through Seventh Semester).

Accordingly breakup of curriculum is shown as under:

First Group of Curriculum to be Covered during phase I (First and Second semester)

### **A. Class-room Teaching**

1. Introduction to Humanities and Community Medicine  
History of Medicine, Definition of Health, Concept of Health, Spectrum of Health Determinants of Health, Indicators of Health
2. Demography & Population Dynamics:  
Definition, Collection of Demographic Data, Population census, records of vital Statistics, Demographic cycle, Demographic Trends in India, Definitions of Vital Events, Collection of Vital Statistical Data, Compilation, Tabulation & Presentation.
3. Health Economics  
Introduction, Natural Economical resources of the Country, Economic Levels, Health Planning & Budgeting.
4. Social Science & health
  - a) Medical Sociology  
Concepts and principles of sociology, Social Sciences, Social Classification, Social Factors related to health and diseases, Social organizations, Urban and rural society, Family type, function and role of family in health and disease, Society in concern, its functions, role of cultural health and disease, hospital sociology
  - b) Behavioral Sciences  
Community behavior and ecology, interaction of human being to human environment, social psychology, and impact of psychology on health effect of urbanization on health and diseases, medico-social problems
5. Hospital Management  
The principle of practice of medicine including the visit to the hospital full familiarization with elementary nursing practices, practices of sterilizations injection and dressing practices, necessity for record keeping, art of communication with patients including history taking, Medico-social work and immunization against the disease and health check up.

## 6. Health Care delivery system

Health care delivery system at center, state, District and Local levels. Rural Health services, health care of community, Primary health care, Comprehensive health care, basic health care, Health care delivery, health status and health problem of India and Gujarat.

### **B. Field visits to health establishments:**

Following health establishments have been considered for field visits. In these establishments health intervention programmes are operative. Total 15 visits will be planned. Each visit will cover two hours of demonstration and participation etc.

Sr. No.	Name of Field Visit
1	All India Hospital Post Partum Programme (AIHPPP) / PPU
2	Central Syringe Sterilization Department
3	Elementary Nursing Practices
4	Transfusion Medicine / Blood Bank
5	Revised National Tuberculosis Control Programme (RNTCP)
6	Vatsyayan Kendra / Sexually Transmitted diseases Control Programme (STDPC)
7	National Vector Borne Disease Control Programme
8	Primary health centre/ Rural Health Training Centre
9	Vital Statistics / Medical Record Section
10	Rehabilitation Centre/ Physiotherapy Centre
11	Family visit (Community Visit)
12	Urban Health Training Centre (UHTC)
13	Anganwadi / Integrated Child Development Services (ICDS)
14	Immunization Clinic
15	Integrated Counselling and Testing Centre (ICTC)

### Schedule of Lectures during first year ( Semester-1 and 2)

#### Second group of curriculum to be covered during phase II & III

Sr. no	Topic	Hours
1	Teaching of Community Medicine Man & Medicine	2
2	Concept & Dimensions of Health& disease	2
3	Demography	2
4	Indicators of Health	2
5	Family in Health & Disease	2
6	Spectrum & Determinants of Health	2
7	Health system in India	2
8	Sociology, Social Factors & Health	2
9	Concept of Risk Factor & Iceberg	2
10	Basic epidemiology	2
11	Social Classification	2
12	Modes of Intervention	2
13	Cultural Factors in Health & Disease	2
14	Concept of Control & Prevention	2
15	Investigation of Epidemic	2

#### (THIRD TO SEVENTH SEMESTERES)

##### A. Class room Teaching (Theory)

Following subjects will be covered through class room teaching which will involve lectures, seminars, symposiums etc

##### 1. Environment Health

###### a. Air and Ventilation

Atmospheric air - its composition, effect of vitiated air, overcrowding. Indices of thermal comfort, Natural and artificial ventilation. Air pollution, Air borne diseases, disinfection of air, air conditioning measurements of air temperature, humidity & velocity. Indices of heat stress, effect of heat on health.

###### b. lighting:

Requirements, Sources, Measurements, Normal standards, Health effect of poor lighting.

###### c. Noise:

Sources, Properties, Measurements, Effect on human health, Noise control.

###### d. Radiation :

Sources: type of radiations, measurements, Effect on health, Radiation protection and control.

- g. Housing in Relation to health:
- h. Criteria for healthful housing, House standards, overcrowding, Housing and Health
- i. Disposal of Wastes:
- j. Collection, Removal, disposal of refuse, night soil and sewage sanitary barrier, fecal borne diseases, various methods of disposal of dead.
- k. Village Sanitation: Housing, Provision of safe water supply, sanitary disposal of refuse and excreta, village latrines, Manure pit.
- l. Sanitation of Camp & Fair:  
Site, water supply, control of food establishments, Disposal of refuse and excreta, Control of communicable diseases.

## **2. Nutrition & Health**

Importance of safe milk and other food stuffs, Adulteration, Preservation, food poisoning, food and milk borne diseases, Role of nutrition in various diseases, Dietetics- nutritional surveys, National Nutritional programme.

## **3. Genetics and Health**

Principles, Heredity, Chromosomal disorders and abnormalities, Population genetics, General Epidemiology and Control of genetic disorders, Genetic counseling

## **4. General Epidemiology:**

Definition, Epidemiology methods, uses of epidemiology, screening of disease, Epidemic investigation, Infectious disease Epidemiology, Disease transmission, Nature of reservoir of infection, Immunity, Immunoprophylaxis, National Immunization Programmes, Non-communicable diseases epidemiology, Disease control and prevention, Health advice to travelers, Hospital acquired infection, Notification, Isolation, Quarantine, Surveillance, Disinfection & Sterilization.

## **5. Systemic Epidemiology:**

### **a. Communicable Disease**

Problem, Epidemiology, prevention, control and national control and eradication program of common communicable disease such as small pox, chickenpox, measles, Rubella, Mumps, Influenza, Diphtheria, Whooping cough, Meningococcal meningitis, Viral hepatitis, Cholera, Enteric Fever, Tuberculosis, Acute Respiratory Infections, Poliomyelitis, Food poisoning, Amoebiasis, Bacillary dysentery, Diarrheal Diseases, Helminthes infestations, Guinea worm, Yellow fever, Dengue fever, KFD, Japanese encephalitis, Rickettsial diseases, Plague, Malaria, Filarial, Leishmaniasis, Rabies, Trachoma, Tetanus, Leprosy, STD, AIDS, Yaws etc.

**b. Non-communicable Disease:**

Problem, Epidemiology, Prevention, Control and national control programmes for common non-communicable diseases such as Cancer, Cardio-Vascular disease, Rheumatic fever and heart disease, Hypertension, Diabetes, Obesity, Blindness, Accidents etc.

**6. Occupational Health**

Occupational environment, Interaction of Physical, Chemical, Biological, Mechanical and Social agents with man, Occupational hazards and disease of importance and their prevention and control such as Pneumoconiosis, Lead poisoning, Occupational Cancers, Occupational dermatitis, Radiation hazards, Hazards of Agricultural workers, Accidents in Industry, Industrial Toxicology, Sickness Absenteeism, Health Problems and General measures of prevention and control of industrial problems, prevention and control of occupational diseases, Indian Factory Act and ESIS Act, Industrial Social Security

**7. Maternal and child Health & Family Planning**

Maternal & Infant mortality and morbidity in the country, Causes and schemes for its prevention, Measures for promotion of maternal and child welfare prevention of prenatal, neonatal and infants deaths, care of the pre school child, Various national, state and voluntary agencies for child and maternal protection, Socioeconomic and educational aspects of the problem.

**8. School Health**

School premises and environmental sanitation, periodic medical inspection. Early detection of ailments, Defects and their treatment, Correction of deformities, mid day meal program, care of backward child, health education.

**9. Family planning**

Medico-social and health aspects of family planning, Contraceptive, national family welfare program, post partum program, medical termination of pregnancy act.

**10. Geriatrics and Health**

Problems of ageing, health status of aged person, measures to solve the problems of aged persons.

**11. Mental health**

Mental deficiency, Care and control of mental health, child guidance clinic, drug dependence and its control

## 12. Health education

Principles of health education, health and personal habits, various methods for the dissemination of knowledge

## 13. Public health administration

Health planning, health management, Health planning in India, Bhore Committee, Mudaliar Committee, Other health committee reports for health planning in India. Five year health plans, Health for all by 2000A.D. health status and health man power, Money Materials, etc. to improve health status of people, hospitals, health insurance, government and nongovernmental health agencies.

National Health Program of India, ROME, ICDS etc. international health organizations like, WHO, UNICEF, FAO, ILO, CARE and others.

## B. Field visit/ Practical/ Clinics/ Tutorials/ Demonstration/Community posting/ etc.

Following subjects will be covered through teaching methods using field visits, Practical, Clinics, Demonstration, Community posting, workshops, etc. students will be posted for 4 weeks each during third, Fourth and sixth semesters (Total Semester period will be 12 weeks). If required additional period of 2 hour each will be arranged depending upon subject and the suitable community hour exposure.

1. Training in Hospitals; Hospital visit will be arranged to demonstrate the following.
  - a. Nursing including the bed making
  - b. Techniques of disinfection and dressing
  - c. Management of hospital including clean linen
  - d. Bed side manners and medical ethics
  - e. The art of communication, history taking, winning the confidence of the patients.
  - f. Keeping completeness and reliability.
  - g. patient psychology – understanding patients' perception, his perception
  - h. medico – social work
  - i. principles of health education – doctor's role

### 2. Field visits:

Field visits will be arranged to demonstrate following:

- a. Factors determining health and disease including environmental influences
- b. Applied sociology – importance of community participation
- c. Limited resources – necessity of maximization of utilization
- d. Importance of nutrition on health & disease

- e. Acute infectious disease and other local endemic disease .e.g., trachoma, goiter, filariasis etc.
- f. Tuberculosis
- g. Preventive aspects of psychological medicine and psychiatry
- h. Preventive aspect of leprosy
- i. V.D. control
- j. Preventive aspect of dietetics and nutrition, information on all National health programme and role of International health organization.
- k. Family welfare planning and community medicine
  - 1. The need for family planning
  - 2. Organization of family planning services
  - 3. Health education in relation to family planning
  - 4. Nutrition
  - 5. Psychological needs of the mother, the child and the family
  - 6. Demography and vital statistics

### 3. Health information and basic medical statistics

Sources and presentation of data, sampling, measures of central tendency, variability, normal distribution and normal curve, sampling variability and significance, demography and vital statistics, life table etc.

### 4. Environmental health

- a. Role of environment in health and disease components of environmental health and their impact on health and disease.
- b. Water
  - sources, collection, storage and distribution of water, impurities and their relation to health, purification, importance of safe water supply. Collection and forwarding of sample of water, analysis of water, standards of purity, public swimming bath sanitation. National water and sanitation programme, Water borne diseases
- c. Medical entomology
  - Life history, role in disease transmission and control of common vectors of medical importance such as mosquitoes, house fly, tsetse fly, louse, rat flea, bedbugs, ticks, mites, Cyclops etc.
- d. Rodents
  - Role in disease transmission, habituates and control of common rodents of medical importance
- e. Insecticides
  - Classification, resistance and toxicity
- f. Demonstration on insects, micro-organism, parasites, insecticide, rodenticides, instruments, food stuff, immunological substances etc.

## 5. Epidemiological exercise and statistical exercise

Students will be trained for epidemiological and statistical exercise through classroom exercises, field visit demonstration etc.

## 6. Family health and clinic-social case study

## 7. National health programmes and Epidemic situations

## 8. Visit to an industry and class room demonstration on occupational health relevant to state

## 9. Project work

Candidate would be assigned a project to learn epidemiology and management on specific of health and disease subjects in community medicine. A report on it will be prepared and evaluated at level of university exam.

**Distribution of Marks:****Community Medicine including Humanities:**

Theory: Two papers of 60 marks each	120 marks
(Includes problem solving, applied aspects of management at primary level including essential drugs, Occupational (agro based) diseases, rehabilitation and Social aspects of community).	
Oral (Viva)	10 marks
Practical/Project evaluation	30 marks
Internal assessment	40 marks
(Theory -20; Practical-20)	
Total	200 marks

Pass: In each of the subjects a candidate must obtain 50% in aggregate with a minimum of 50% in Theory including orals and minimum of 50% in practical/clinical.

**Examination and Marks:**

Internal assessment:

TEST	TIME	THEORY MARKS	PRACTICAL MARKS
1 <sup>st</sup> Internal exam	At the end of 4 <sup>th</sup> semester:	10	0
	1 <sup>st</sup> internal marks calculation: <ul style="list-style-type: none"> <li>• One theory paper of 60 marks= 8 marks</li> <li>• MCQ test for 20 question = 2 marks</li> <li>• Total : 8 + 2 = 10 marks</li> </ul>		
Preliminary exam	At the end of 7 <sup>th</sup> semester:	10	8
	Preliminary exam internal marks calculation: <ul style="list-style-type: none"> <li>• Two question paper for 60 marks each= 8 marks</li> <li>• MCQ test for 20 question = 2 marks</li> <li>• Total : 8 + 2 = 10 marks</li> </ul>		
Day to day evaluation		0	12*
Total		20	20

\* Includes – 6 marks for attendance in classes

- 6 marks for clinical posting of community medicine including project performance

**Mark scheme: University exam**

<b>Theory</b>		
Paper 1	60 marks	3 hours
Paper 2	60 marks	3 hours
Oral viva	10 marks	
Total	130 marks	

<b>Practical</b>		
Exercise	Epidemiological	10 marks
	Statistical	10 marks
	Short question	10 marks
Total		30 marks

<b>Internal Marks</b>	Theory	Practical
Total Marks 40	20	20

Total: 200 marks

**Structure of question paper**  
**(For theory – internal and preliminary exam)**

Question	Section I		
Q – 1	Write notes on	Any 2 out of 3	$2 \times 6 = 12$ marks
Q – 2	Write short notes on	Any 3 out of 4	$3 \times 4 = 12$ marks
Q – 3	Write short notes on	Any 2 out of 3	$2 \times 3 = 6$ marks
Total			30 marks
Question	Section II		
Q – 4	Write notes on	Any 2 out of 3	$2 \times 6 = 12$ marks
Q – 5	Write short notes on	Any 3 out of 4	$3 \times 4 = 12$ marks
Q – 6	Write answer to the point in 2 or 3 sentences	Any 6 out of 8	$6 \times 1 = 6$ marks

Total	30 marks
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Time duration for each paper is 3 hours. Total marks 60 for each paper.

#### Topic Division

Paper I (Basic Community Medicine)	Paper II (Applied Community Medicine)
<ul style="list-style-type: none"> <li>• Concept of health and disease</li> <li>• Environment and health</li> <li>• Nutrition and health</li> <li>• Social science and health</li> <li>• Health information and Basic medical statistics</li> <li>• General epidemiology</li> <li>• Systemic epidemiology</li> <li>• Entomology</li> </ul>	<ul style="list-style-type: none"> <li>• Demography and family planning</li> <li>• School health</li> <li>• Preventive medicine in obstetrics, pediatrics and geriatrics</li> <li>• Occupational health</li> <li>• Mental health</li> <li>• Genetics and health</li> <li>• National health programme</li> <li>• Health education and communication</li> <li>• Health planning and management</li> <li>• Health care of the community</li> <li>• International health</li> </ul>