

**THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY, CHENNAI  
REGULATIONS OF THE UNIVERSITY**

In exercise of the powers conferred by Section 44 of the Tamil Nadu Dr.M.G.R.Medical University, Chennai Act 1987 (Tamil Nadu Act 37 of 1987) the Standing Academic Board of the Tamil Nadu Dr.M.G.R.Medical University, Chennai hereby makes the following regulations:-

**SHORT TITLE AND COMMENCEMENT:-**

These regulations shall be called as “**THE REGULATIONS FOR THE POST GRADUATE DIPLOMA COURSE IN HEALTH PROMOTION AND EDUCATION OF THE TAMIL NADU Dr. MGR MEDICAL UNIVERSITY, CHENNAI**”.

They shall come into force from the academic year 2010-2011

The Regulations and the Syllabus framed are subject to modification by the Standing Academic Board from time to time.

**REGULATIONS**

**1. ELIGIBILITY**

Candidates for admission to the Post Graduate Diploma in Health Promotion and Education course should have passed:

- (a) A Bachelor's degree in Medicine and Surgery recognised by the Medical Council of India
- (or)
- (b) A Master's degree in arts or science or education or nursing of a recognised Indian University
- (or)
- (c) A Bachelor's degree in arts or science or education or nursing and atleast two years experience in community work.

Preference for admission is to be given to candidates deputed by the Central and State Governments, Local bodies, Quasi-Governmental organizations and voluntary institutions engaged in implementing health and family planning programme.

## **2. PHYSICAL FITNESS CERTIFICATE**

Every candidate before admission to the course shall submit to the Principal of the Institution, a Certificate of Medical Fitness from an Authorised Medical Officer that the candidate is physically fit to undergo the academic course and does not suffer from any disability or contagious disease.

## **3. ELIGIBILITY CERTIFICATE**

Candidates who have passed any qualifying examination as stated in Regulation No.1 above other than the Tamil Nadu Dr. M.G.R. Medical University shall obtain an “Eligibility Certificate” from this University by remitting the prescribed fees along with the application form and required documents before seeking admission to any one of the affiliated medical institutions. The application form is available in the University website :[www.tnmmu.ac.in](http://www.tnmmu.ac.in).

## **4.REGISTRATION:**

A Candidate admitted in the Post Graduate Diploma in Health Promotion and Education course in any one of the affiliated institutions of this University shall register his / her name in the prescribed application form for registration duly filled, along with the prescribed fee and declaration taking in the format to the Controller of Examinations of this University through the affiliated institutions within 30 days from the cut-off date prescribed for Post Graduate Diploma in Health Promotion and Education course for admission.

## **5. DURATION OF THE COURSE:**

Total duration of the course is one year( 12 months) – beginning 1<sup>st</sup> May/1<sup>st</sup> October and concluding on 30<sup>th</sup> April/30<sup>th</sup> September every year.

\*\*\*Resolved in 43<sup>rd</sup> SAB dt.19.12.2011

## **6. COMMENCEMENT OF THE COURSE:**

The academic year for the Post Graduate Diploma in Health Promotion and Education course shall commence from 1<sup>st</sup> May/1<sup>st</sup> October of the year.

\*\*\* Resolved in 43<sup>rd</sup> SAB Dated 19.12.2011.

## **7. COMMENCEMENT OF THE EXAMINATIONS:**

**15th April / 15th October**

\*\*\* Resolved in 43<sup>rd</sup> SAB Dated 19.12.2011.

Theory examinations not to be held on Saturdays and Sundays. If the date of commencement of examination falls on Saturdays / Sundays or declared Public Holidays, the examination shall begin on the next working day.

## **8. CUT-OFF DATE FOR ADMISSION TO EXAMINATIONS:**

The candidates admitted upto 31<sup>st</sup> May / 31<sup>st</sup> October shall be registered to take up their First Year examinations after fulfillment of the regulations from April/October of the next year.

All admissions shall be completed on or before 31<sup>st</sup> May / 31<sup>st</sup> October of the academic year. There shall not be any admissions after 31<sup>st</sup> May / 31<sup>st</sup> October, even if seats are vacant.

\*\*\* Resolved in 43<sup>rd</sup> SAB Dated 19.12.2011.

## **9. CURRICULUM:**

The Curriculum and the syllabus for the course shall be as prescribed by the Standing Academic Board from time to time.

## **10. MEDIUM OF INSTRUCTION:**

English shall be the Medium of Instruction for entire course of the Post Graduate Diploma in Health Promotion and Education.

## **11. WORKING DAYS IN THE ACADEMIC YEAR:**

Each academic year shall consist of not less than 270 working days.

<b>Total No. of days in a year</b>		<b>365 days</b>
No. of weekly off( Sundays)	-	52 days
No. of Government Holidays	-	22 days
No. of Holidays	-	21 days
	-----	95 days
Total No. of working days including examination period		----- 270 days -----

## **12. ATTENDANCE REQUIRED FOR ADMISSION TO EXAMINATIONS:**

a) No candidate shall be permitted to appear in any one of the parts of Post Graduate Diploma in Health Promotion and Education course in Examinations unless he/she has attended the course in the subjects for the prescribed period in an affiliated institution recognized by this University and produce the necessary certificate of study, attendance and satisfactory conduct, progress from the Head of the institution.

(b) A candidate is required to put in minimum of 90% of attendance in both theory and practical separately in each subject before admission to the examinations. This 270 working days of attendance is required for clinical specialities (Anatomy, Physiology, Biochemistry, Pathology, Pharmacology, Microbiology, Forensic Medicine and Community Medicine)

c) A candidate lacking in the prescribed attendance and progress in any one subject in theory and practical wherever necessary in the first appearance shall not be permitted for admission to the entire examinations.

**13 . CONDONATION OF LACK OF ATTENDANCE:**

There shall be no condonation of lack of attendance.

**14. SUBJECTS OF STUDY**

Paper I	Communicable Diseases control and National Health Programme
Paper II	Health Administration and Environmental Sanitation
Paper III	Maternal, Child Health, Nutrition and Health Statistics
Paper IV	Community Organization and Development
Paper V	Behavioural Science and Research Methodology
Paper VI	Communication Methods and Media

## **15. SCHEME OF EXAMINATION**

### **(D)P.G. DIPLOMA IN HEALTH PROMOTION & EDUCATION**

#### **(ONE YEAR)**

FIRST YEAR	Theory Paper	IA		Theory		Viva	
		Max	Min	Max	Min	Max	Min
PAPER I	Communicable Diseases Control and National Health Programme	50	25	100	50	100	50
PAPER II	Health Administration and Environmental Sanitation	50	25	100	50	100	50
PAPER III	Maternal Child Health, Nutrition and Health Statistics	50	25	100	50	100	50
PAPER IV	Community Organisation and Development	50	25	100	50	100	50
PAPER V	Behavioural Science and Research Methodology	50	25	100	50	100	50
PAPER VI	Communication Methods and Media	50	25	100	50	100	50

If a candidate fails either in Viva or Theory he/she has to write both the Viva and of Related Theory subject.

**Concurrent Field Training(CFT):** Duration of Concurrent Field Training is 5 months.

Concurrent Field Training Report is to be submitted by the Trainee at the end of the CFT to the Institute and the respective institution shall submit Satisfactory Work Completion report to the University.

The Concurrent Field Training Report shall be evaluated internally by the institution and the Institutional Report shall be submitted to the University.

The Concurrent Field Training shall be carried out before taking the theory examinations.

**Supervisory Field Training(SFT):**

Duration of Supervisory Field Training is 2 months.

Supervisory Field Training Report is to be submitted by the Trainee at the end of the SFT to the Institute.

The SFT Report shall be evaluated internally by the institution and the Institutional Report shall be submitted to the University.

The candidates shall complete Supervisory Field Training(SFT) before appearing for their theory Examination and Satisfactory Completion Certificate may be issued by the Institution.

**INTERNAL ASSESSMENT MARKS:**

For making Internal Assessment

- a. At least 3 class test or assignment are to be conducted for such subject during each semester.
- b. A laboratory records for Media & Public Health subjects should be maintained by trainee as a required element.
- c. C.F.T. Internal Assessment will be made on the basis of
  - i) Field seminar performance of the candidate and
  - ii) Record of activity on the field by the candidate.

**16. QUESTION PATTERN**

	No.of questions	Marks per question	Total Marks
Essays	2	20	40
Short Notes	10	6	60
<b>Total</b>			<b>100</b>

**17. MARKS QUALIFYING FOR A PASS:**

**A candidate shall be declared to have passed the examination if he/she obtains the following qualifying marks:-**

50% of marks in University theory examination ;  
 50% of marks in University oral examination and  
 50% of aggregate marks in Theory, Internal Assessment, & oral Examination.

**18. REVALUATION/RETOTALLING OF ANSWER PAPERS:**

Revaluation of answer papers is not permitted. Only retotalling of theory answer papers is allowed, in the failed subjects.

**19. CARRY-OVER OF FAILED SUBJECTS:**

A candidate who has not passed in a paper / papers can take the examination for that paper / papers again in the Supplementary examination.

**20. RE-ADMISSION AFTER BREAK OF STUDY:**

Please refer to the Separate Regulations for Re-admission after break of study for all courses.



**21. DURATION FOR COMPLETION OF THE COURSE OF STUDY:**

The duration for the completion of the course shall be fixed as double the duration of the course and the students have to pass within the said period otherwise they have to get fresh admission.

**22. AUTHORITY TO ISSUE TRANSCRIPT:**

The University shall be the Authority for issuing Transcript after remitting the prescribed fee or as may be prescribed from time to time.

**23. MIGRATION/TRANSFER OF CANDIDATES:**

Migration/Transfer of candidates from one recognized college to another recognized college of this University or from another University shall not be granted.

**24. VACATION:**

There is no vacation.

\*\*\*Resolved in 43<sup>rd</sup> SAB dt.19.12.2011

**25. AWARD OF MEDALS AND PRIZES:**

The University shall award at its Convocation, Medals and prizes to outstanding candidates as and when instituted by the donors as per the schedule prescribed for the award.

**TOPICS COVERED IN EACH PAPER:**

Paper –I Communicable Disease Control & National Health Programme.

- Anatomy and Physiology and Microbiology
- Epidemiology and Communicable Disease Control
- Helminthology & Medical Entomology
- National Health Programme
- Occupational Health

Paper-- II Health Administration including community medicine  
-- Environmental Health.

Paper-- III Maternal Child Health; Nutrition & Health Statistics.  
--Health Statistics and demography  
--Maternal Child Health and Family Planning;  
--Nutrition;  
--School Health & Population Education

Paper-- IV Community Organization and Development and Health Education.  
--Community Organization;  
--Community Development;  
--Health Education;  
--Training;  
--Programme Planning.

Paper-- V Behavioural Science and Research Methodology.  
--Behavioural Science;  
--Group Process;  
--Research Methodology  
--Evaluation;  
--Mental Health.

Paper-- VI Communication Methods and Media.  
--Communication Process;  
--Mass Communication;  
--Media;  
--Educational methods;

**ANNEXURE****REVISED SYLLABUS FOR THE POST-GRADUATE DIPLOMA  
COURSE IN HEALTH PROMOTION AND EDUCATION****SYLLABUS****SUBJECT – 1: BASICS-HUMAN ANATOMY AND PHYSIOLOGY****12 Hrs**

1. Introduction to Anatomy and Physiology:  
Definition of Anatomy and Physiology  
and components of Blood Group

**SUBJECT – 2: HELMINTHOLOGY AND MEDICAL  
ENTOMOLOGY****14 Hrs.**

1. Helminths – types; characteristics; life cycle;  
The following will be discussed: a) hookworm b) round worm c) pinworm  
d) tape worm e) guinea worm f) microfilaria
2. Arthropods of medical importance, classification, characteristics.
3. Mosquito : types – life cycle of Anopheles, Culex – Diseases transmitted  
– control measures.
4. Fly, Flea, Mite, Louse: life cycle–diseases transmitted – control measures.  
Subjects
5. Sterilization, disinfection and disinfestations:  
definition and methods of sterilization, disinfection and disinfestations –  
Laboratory session.

**SUBJECT – 3: EPIDEMIOLOGY : CONTROL OF COMMUNICABLE AND NON-COMMUNICABLE DISEASES: MICROBIOLOGY**

**30 Hrs**

1. Concept and scope of epidemiology: definition – concept – uses in public health.
2. Health and disease: definition – health and disease Continuum – interaction between agent, host Subjects and environment – natural history of disease – definition of terms – epidemic, endemic, sporadic, pandemic, incubation period, reservoir, host, quarantine, and level of prevention and epidemic preparedness
3. Communicable diseases: definition – reservoir and source of infection – mode of entry and exit of organisms – channels of transmission – susceptible host – definition of terms: case, carrier, contact, vector, vehicle, fomites.
4. Classification of communicable diseases: caused by inhalation – ingestion, direct contact, inoculation – principles in control of those diseases and health education components.
5. Specific communicable diseases: Occurrence – mode of spread – symptoms – prevention and control measures of the following:
  - a) Chicken pox b) Measles c) Diphtheria d) Whooping cough
  - e) Tetanus f) Cholera g) Typhoid and Paratyphoid h) Diarrhea and Dysentery (Enteric & Diarrhea diseases) i) Food poisoning
  - j) Poliomyelitis k) Viral hepatitis l) Helminthic infestations : hookworm, round worm, pinworm and tape worm m) Malaria n) Filariasis
  - o) Kala azar, p) Tuberculosis q) Leprosy r) Sexually Transmitted Diseases and AIDS s) Common skin infections: Scabies, Ringworm
  - Emerging t) Rabies u) Plague v) Trachoma x) conjunctivitis and y) Newer Infections, Swine flu, Leptospirosis, SARS
6. Epidemiology of non communicable diseases and other conditions: Cancer, Cardiovascular diseases, Diabetes, Goiter, Blindness, injuries, Obesity and Accident Prevention

7. Introduction to Microbiology: Role of microbiology in health and diseases, Disinfection and sterilization safety, Universal Precautions and Hospital Waste Management
8. Bacteria: Definition – types – growth – spore formation – morphology – staining characteristics – viability.
9. Viruses: Definition – types
10. Protozoa: Definition – types – life cycle – cyst formation – Diseases caused by protozoa – amoebic dysentery, malaria.
11. Fungi : Definition – types – diseases caused by fungi ringworm – laboratory sessions – microspic, cocci, bacilli, worms, malaria.
12. Immunity: definition – concept and types of immunity – herd immunity and its importance in public health.
13. Immunization: methods – schedules – storage – side effect – antiepidemic and international regulations, cold chain maintenance, Adverse Reaction and Reporting

#### **SUBJECT – 4: OCCUPATIONAL HEALTH**

**12 Hrs**

1. Introduction : Basic concepts of occupational health and its components.
2. Environment and industry: temperature, humidity, air movement and radiation; effective temperature.
3. Industrial toxicology: smoke, dust, fumes, smog, vapour gas etc; toxic gases; metals and solvents; Modes of entry; safe limits.
4. Occupational diseases: heat disorders; Vibrations, repetition of motions; excess noise; dust diseases.
5. Measures for control of industrial health disorders, primary and secondary (containment & ventilation).
6. Accident prevention: Proper ventilation and personal protective devices.

7. Factories Act; Industrial health services; Prevention of Child Labour Act.
8. Plant sanitation and hygiene: house-keeping, water supply, and drinking water facilities, heating facilities; wash and locker room facilities; toilet facilities; restroom facilities.
9. Health hazards in agriculture.
10. Preventive measures and role of health education in occupational health.

**SUBJECT – 5 : NATIONAL HEALTH PROGRAMMES      12 Hrs**

1. National Health Programmes : Need – broad concepts – strategy – control and eradication programmes.
2. The following NHPs will be discussed:
  - a) National Malaria Eradication programme.
  - b) National Filariasis control programme.
  - c) National Leprosy Eradication Programme.
  - d) National Tuberculosis Control Programme.
  - e) Diarrhoeal disease control programme.
  - f) Iodine deficiency disorders control programme.
  - g) National programme for control of Blindness.
  - h) National water supply and sanitation programme.
  - i) Guinea worm eradication programme.
  - j) National family welfare programme.
  - k) Universal immunization programme.
  - l) National STD / AIDS control programme.
  - m) National Rural Health Mission, MDGs and Pulse Polio Immunization

**SUBJECT – 6 : ENVIRONMENTAL HEALTH      31 Hrs**

1. Introduction to environment : Types of environment ;  
Components of environment : man and his environment.
2. Community sanitary survey (group assignment)
3. Environmental health problems in India : Problems in relation to water – sewage, refuse, air, food, housing and public places.
4. Environment and Health : Need for improvement of environment,  
Concepts of Environment

5. Environmental sanitation in the National Plans:  
National schemes for improvement of environment;  
Environmental sanitation in the community development and health programmes in the Five Year Plans.
6. Water and diseases: source of drinking water; diseases transmitted through water.
7. Pollution and protection of water supply: Source of Pollution : methods of protection of water supply at source, in distribution, and during storage.
8. Water Treatment Methods - disinfection of water: Methods of treatment of water - domestic and community consumption.
9. Disposal of waste water : Methods of disposal of waste water in rural areas, soakage pit
10. Diseases transmitted through excreta and channels of transmission,  
Sanitary latrine as a sanitation barrier: Requirements of a sanitary latrine : types of sanitary latrines – pit – latrine, VIP latrine, bore hole latrine, bucket latrine, aqua privy, water seal latrine with septic tank disposal, chemical closet, water carriage system: advantages and disadvantages of each: role of health educator, Observation visit to sewage works, sewage treatment plant.  
Demonstration of sanitary latrines.
11. Collection of disposal of refuse: Nature of refuse: systems of refuse collection and transport: methods of refuse disposal: role of health educator.  
❖ IN EACH OF THESE UNITS THE HEALTH EDUCATOR'S ROLE SHOULD BE DISCUSSED
12. Food Sanitation: Public health importance of food and milk sanitation: sources of contamination: measures of sanitation for food and milk: sanitation of slaughter house and markets.
13. Sanitation of food establishments: Sanitation of premises: Preparation, storage and serving of food handlers role of health educator.
14. Home sanitation and health: Relation between housing and health principles of healthful housing.
15. Sanitation of public places: Health problems associated with places of public gathering : sanitation of fairs and festivals: sanitation of refuge camps: role of health educator.

16. Control of insects and rodents and dog destruction: Control of flies and mosquitoes: Control of rodents and rat proofing: Destruction of stray dogs: Role of Health Educator.

17. Global Warming, Green House Effect, Rain Water Harvesting

WB: Observation visits should be made in relation to each of the above units from 7 to 16.

## **SUBJECT – 7: PUBLIC HEALTH ADMINISTRATION**

### **TOPIC - A: Health Plan**

**8 Hrs**

1. History of health services in India.
2. Health survey and development (Bhore) committee report.
3. Health survey and planning (Mudaliar) committee report.
4. National plans: Planning commission and Five Year Plans: Social Services component and health; achievements, shortcomings and reasons thereof.
5. Chandha Committee and Mukherjee committee reports – main recommendations and critical comments.
6. Kartar Singh committee report and Multipurpose workers scheme: main recommendations and functions of all workers and supervisory place of professional health educator.

### **TOPIC – B: Health organization.**

**24 Hrs**

1. Constitution of India: Provisions for health: National set up: Functions of Central Council of Health and Family Welfare: Union Ministry of Health and Family Welfare: Directorate General of health Services: Central Health Education Bureau
2. State level set up, Health department: Directorate of Health Services: State Health Education Bureau: State AIDS Cell.
3. Intermediate (including regional and sub-district) level set up: administration and co-ordination.
4. Local levels: Urban – roles and functions of different types of health organization.



5. Rural – democratic decentralization (block panchayatraj) Primary Health Centre setup.
6. Multipurpose health workers scheme: Minimum Needs Programme.
7. Functions and roles of personnel at different levels.
8. Role of Professional Health Educator.
9. Role of other agencies and mobilization of community resources.
10. National Health Policy – current trends.
11. Application of concept of community medicine in the existing health organization and infrastructure in the country.
12. Primary Health Care – concept – approach & principle and elements.
13. Health Services in tribal areas.
14. Health care delivery system at different levels

**TOPIC – C: Management:**

**19 Hrs**

1. Principles of organization; behavioral approach; human factors; authority, power, managerial aspects applicable to health administration.
2. Delegation of duty and authority:
3. Staff functions.
4. Communication principles applicable to management: techniques of communication: orders: manuals and guides.
5. Reports and returns, records – information system.
6. Supervision – goals and functions: leadership and supervision.

7. Personnel management; minimizing of role conflicts. Morals and motivation of staff, personnel training, performance appraisal; utilization of man-power resources: team concept.
8. Health Planning Cycle
9. Finances, budgeting.
10. Material management.
11. Public relations and reporting.
12. Disaster Management

**TOPIC – D: Health Legislation**

**6 Hrs**

1. Public health-related laws: need and scope.
2. Municipal Acts; main provision and areas; difficulties in enforcement.
3. Important Central Acts: drug, birth and death, Indian factories Act, Prevention of food adulteration Act, E.S.I., Consumer Protection Act 1886, Child marriage & Restraint Act, Pre-Natal Diagnostic Test (PNDT)
4. International health – Port health organization and quarantine.
5. The role of community participation in effective enforcement of these laws.

**TOPIC – E: International Agencies connected with Health**

**6 Hrs.**

1. Interdependence in health, international health regulations – scope, objectives and functioning.
2. WHO: Constitution, objectives, plans of operation: assistance.
3. UNICEF: Constitution, objectives, functions, roles, various programmes.

4. Other agencies like USAID, Colombo Plan; Common-Wealth, FAO, ILO, Swedish and Russian aid in various health programmes in the country.
5. Rock feller Foundation, Ford Foundation, Population Council; and professional organizations.
6. Indian Red Cross Society
7. Funding Agencies for Polio Immunization

**SUBJECT – 8: HEALTH STATISTICS AND DEMOGRAPHY  
24 Hrs.**

1. Introduction to (i) theoretical and applied statistics special reference to health statistics – specification, estimation, testing of hypotheses and inference: (ii) Demography concepts, definitions, purpose and uses.
2. Sources of health demographic data: Institutional records, health and morbidity surveys, PHC records, case cards, NSS and adhoc surveys, census, registration of vital events, sample registration; exercise; study of case cards, questionnaires and schedules.
3. Presentation of health data: (i) classification and tabulation: (ii) graphic presentation of data, linear graph, bar-chart, pie-diagram, histogram, frequency polygon, age-pyramid etc. – exercises.
4. Percentages, rates and ratios relation to fertility, mortality and morbidity; Exercises; basic concepts of standardization of rates, Indicators of health, estimation of population.
5. Measures of central tendency / location; mean, median, mode, quartiles and percentiles; exercises.
6. Measures of variation / dispersion: range, standard deviation, variance, co-efficient of variation; Exercises.
7. Basic concept of correlation and association.
8. Sample surveys in health field, Exercises like drawing samples with the help of random number.

9. Application of statistical methods to specific problems:
  - a) concept of significance test – chi-square tests
  - b) life tables. Exercises.
10. Population trends in the world and in India; Population theories - Malthusian, Marxian and Demographic transition theories; their consequences – economic, social and health; trialisation, migration and family planning.
11. Factors influencing fertility, Stress
12. Principles in designing records and reports.

**SUBJECT – 9: NUTRITION**

**25 Hrs.**

**Topic – 1: INDIVIDUAL AND PUBLIC HEALTH NUTRITION**

1. Introduction to nutrition: scope and importance of nutrition in promotion of health: classification of foods.
2. Basic elements of foods; proximate principles and protective foods.
3. Factors influence nutrition.
4. Nutrients required for a balanced diet.
5. Balanced diet for different age and sex groups, including vulnerable groups; planning a low cost balanced diet, dietary requirements for certain diseases and for convalescents, geriatric nutrition.
6. Growth, Development, Normal

**TOPIC – 2: EFFECT OF NUTRITION ON HEALTH**

1. Problems of malnutrition common in India and their prevention, obesity
2. Interaction of nutrition and infection
3. Food-borne diseases and food hygiene and food handlers

**TOPIC – 3: IMPROVING THE NUTRITION STATUS OF THE COMMUNITY**

1. Assessment of the nutrition status of the community; Nutrition and diet surveys.
2. Changing food habits, Principles of nutrition education.
3. Fortification and enrichment of foods and preservation of foods.
4. Nutrient loss during storage, processing and cooking
5. Nutrition intervention programmes; role of national and international agencies; role of health educator, Anemia, Iodine, Vitamin A, Deworming
6. Dos and Don'ts

**SUBJECT – 10: REPRODUCTIVE AND CHILD HEALTH, FAMILY WELFARE. 30 Hrs**

1. Need and importance of RCH programme, childhood morbidity and mortality.
2. Maternal care: Components of maternal care; antenatal care; post-natal care; immunization in maternal care; nutrition in maternal care. Service available for maternal care at various levels.
3. Child care: Components of child care; care of newborn; care of infant; care of child from 1 to 5 years; immunization in child care; nutrition in child care; care of handicapped children and rehabilitation; services available for child care at various levels.
4. Problems in utilization of maternal and child health services – socio-economic factors, organizational factors – corrective measures required.
5. Reproductive and child health – introduction and approaches – components.
6. Adolescent Health Promotion, Prevention and Management of Health Problems, Adolescent Reproductive Health and Adolescent vaccines Problem, Adolescent
7. Post Menopausal problems
8. Male Participation in RCH
9. Gender and Health

Identification of educational opportunities in various settings: Assisting other health personnel, immunization for MCH

## **FAMILY WELFARE**

1. Concept of family welfare; Integrated approach to family welfare and MCH – need for small family size – economic, health, socio, psychological, ecologic and eugenic.
2. Conventional methods of contraception: Classification of methods – mechanical devices, chemical contraceptives – natural methods – advantages and limitations of each method – services available.
3. Intrauterine Devices: Development and types of IUD – mode of action – selection of suitable cases – method of insertion – follow up of cases – possible side effects – drop outs due to expulsion – services available.
4. Oral contraceptive and methods of the future: Regimen and mode of action – Selection of suitable cases – follow up of cases – side effects – methods of the future – services available. Recent contraceptives
5. Sterilization: Principles of sterilization; Vasectomy – selection and preparation of cases, method, instructions and follow up cases, re-anastomosis; Tubal ligation – selection of cases, method, instruction and follow up cases, re-anastomosis.
6. Medical Termination of pregnancy: MTP in other countries and in India – indications for MTP – methods – problems in implementation of MTP Act – Services available and role of health educator providing moral support to cases.
7. Infertility: Causes of infertility in the male and female; Need for investigation of both partners; services available.
8. Educational programmes for family planning: Role of health educator in planning, conducting and evaluating educational programmes, special campaigns, intensive drives, exhibitions and leaders orientation training camp.

## **SUBJECT – 11: SCHOOL HEALTH AND POPULATION EDUCATION**

**10 Hrs**

- a. Introduction to school health and population education: Importance of school health and population education – Development of school health and population education programmes in India.
- b. Health appraisal: Nature of health appraisal – cumulative health record – role of health personnel, teachers and parents – educational opportunities in the process.

- c. Healthful school living: School sanitation including hostel sanitation – building, ventilation, lighting, seating, protected water supply, sanitary facilities. Promoting interpersonal relationships between teacher and pupil and among pupils – Games and recreation facilities – Child guidance – health counseling.
- d. Preventive and curative services in schools: School health clinic – role of medical officer in school health education – immunization – accident and emergency services – health of school personnel – health education opportunities in the process.
- e. Nutrition in school health programmes: Nutrition education – feeding programmes including mid-day meals – food sanitation.
- f. Curriculum planning for health and population education: Need for and preparation of health and population education curriculum for different age groups; integration of health and population education in existing curriculum.
- g. Teacher preparation for health and population education: Teacher’s role and responsibilities in health appraisal, health instruction, and health and nutrition services; curriculum analysis with special reference to health and population education.
- h. Toilet Education

## **BEHAVIOURAL SCIENCE AND HEALTH EDUCATION**

### **SUBJECT – 1: BEHAVIOURAL SCIENCE IN RELATION TO HEALTH EDUCATION .**

**83 Hrs**

1. Introduction to behavioral sciences: Definitions, nature, scope, limitations and their relevance to health behavior – contributions of sociology, social psychology, socio-cultural anthropology.
2. Cultural basis of health behavior: Culture – definition with special explanations of terms such as knowledge, beliefs, norms, values, folkways, morals (Mores), taboos, habits, traditions, customs, religion, superstitions and types, characteristics and determinants of culture.
3. Social bases of health behavior: Society, community, social / community structure, leaders, leadership, group dynamics, family type, kinship, social stratification, social deviance; social support, social influence, social processes, Civilization.

4. Socio-psychological bases of health behavior: Behavior – definition, formation, perception, attention, learning process, socialization, values, personality development, (Sigmund Freud) attitudes, status and roles – Motives, drives and needs, decision making process, motivation – Process factors, theories – Thorndike, skinner, Gestalt, Maslow, Force Field theory, Rosenstock Green; Herzberg – Two factor theory. Factors that impede or promote health behaviour.
5. Cultural change: Traits, diffusion, enculturation, acculturation, assimilation, adoption processes, invention, innovation and discovery, factors influencing. Social Change: Social, physical and technological change(man and his environment).
6. Planned change: Nature, scope, stages, strategy, Need & importance.

## **SUBJECT – 2: GROUP DYNAMICS**

**10 Hrs.**

1. Introduction to group dynamics: objectives and methodology of organizing the course
  - The lab group – Its purposes and norms to be followed.
  - Skills and knowledge of group dynamics.
2. Participation : Factors that affect participation of members in a group. Learn how to learn.
3. Relationship of individual and the group: Personal needs and group membership. Individuality and group influence and groups on the formation of norms and attitudes.
4. Leadership and group performance: Leader and group structure. Situational factors affecting leadership – Function of leaders.
5. Task and emotional levels of functions in affecting relation to group development and productivity. Factors affecting participation of individuals. Personal factors in selection and assimilation of group roles, group productivity.
6. Differentiation of roles in task-oriented group; Group building roles, Group maintenance roles, Individual roles.
7. Roles related to group structure and functions: Chairman, recorder, observer, group members.
8. Communication patterns in task-oriented groups; communication as
  - a) interaction
  - b) reciprocal
  - c) expression.
 Situational factors in communication.
9. Diagnosing group needs: Identifying and solving group problems – dealing with conflict and rejection in groups. Hidden agenda.



10. Decision making in groups. The process of decision making in small groups. Leader-member responsibilities in the process of decision making.

### **SUBJECT – 3: MENTAL HEALTH**

**12 Hrs**

1. Concept of mental health – relation between mind and body; Individual and community.
2. Criteria of health (normal) and unhealthy (abnormal) mind.
3. Mechanisms of adjustment needs: physical, social & psychological.
4. Some specific areas of mental health concern; ageing (geriatrics), delinquency and criminality, sub normality, suicide, neurosis, psychosomatic illnesses.
5. Causes of mental/behaviour disorders; heredity vs. environment.
6. Prevention of mental disorders and rehabilitation of mentally ill.
7. Mental deficiency – causes and remedies.
8. Community mental health and National Mental Health Programme.
9. Role of health educator in the field of mental health working with the Government and NGO groups.
10. Behavioural problems of children, types, causes and remedies.
11. Drug dependence – Drug De-Addiction and Alcoholism.

### **SUBJECT – 4: RESEARCH METHODOLOGY IN BEHAVIOURAL SCIENCES AS APPLIED TO HEALTH EDUCATION**

1. Definition and scope of social research in health education.
2. Overview on research process and steps.
3. Critical review of relevant research and studies.
4. Formulation of objectives and hypotheses.
5. Independent, dependent and intervening variables.

6. Types of studies; - Exploratory, descriptive, diagnostic, experimental, evaluative, cohort, epidemiological, cross-sectional and longitudinal (retrospective & perspective). Surveys and steps in data collection techniques.
7. Types of data, sources, utilization and limitations.
8. Method of collection of data – Observations, socio-metric, interviews, records and reports, questionnaires and schedules and projective techniques, case studies, focus group discussions.
9. Development of instruments.
10. Analysis of data – preparation of dummy tables, classification, analysis, tabulation and interpretation of data.
11. Report-writing and presentation.
12. Utilization of one's own study findings.
13. Preparation of research proposal

**SUBJECT – 5: PROGRAMME MONITORING AND EVALUATION**  
**12 Hrs**

1. Definition, purpose, type and place of evaluation in Health and family welfare, concepts, principles and assumptions underlying evaluation.
2. Monitoring : Definition, process and procedures
3. Management Information System –  
 - Monitoring as a process for programme development
4. Process of evaluation, defining objectives, deciding about indices of measurement and criteria of effectiveness.
5. Steps in designing evaluation.
6. Designing and application of tools and techniques of evaluation and interpretation.
7. Analysis of data and interpretation.
8. Four laboratory sessions of 3 hours each on
  - Operationalizing the definitions.
  - Selection of indices.
  - Development of tools.
  - Working out evaluation on selected aspects of a programme.
  - Critical review of selected evaluation reports on Health and Family Welfare.

**SUBJECT – 6: HEALTH EDUCATION.****15 Hrs**

1. Introduction to health education: concepts, objectives, philosophy, importance and need of health education in public health.
2. Definition of Health education
3. Principles of health education.
4. Underlying disciplines and theories of health education.
5. Ethics of the health education profession and attributes of the health education specialist.
6. The role of the health education specialist in relation to other health personnel.
7. Developing health education components in different programmes.
8. Role of health education in the process of social change.

**SUBJECT – 7: COMMUNITY ORGANISATION****12 Hrs**

- a. Community organization: Nature, concepts of community work, meaning of community organization; Principles and process
- b. Importance of community organization in health education, application in rural and urban communities.
- c. Mobilizing the community for action: formation of committees: nature and functions; principles to be used for effective community work.
- d. Role of Health Education Specialist as a change agent in communication organization.
- e. Role of other agencies (Voluntary & Government) in the process of community organization.

**SUBJECT – 8: COMMUNITY ORGANIZATION****10Hrs**

1. Introduction to CD – definition, philosophy and principles, CD as a process, programme, method and a movement; need for CD in India.
2. History of Community Development Programme in India.
3. Progress of community development in India including tribal blocks.
4. Organizational set up and functions of community development at the Central, State, District and block levels.
5. Panchayat Raj – integration of Panchayat Raj with community development.
6. Role of health educator in community development programme.
7. Critical review of community Development Programme in India.

**SUBJECT – 9: PROGRAMME PLANNING.****15 Hrs.**

1. Concepts, principles and process of programme planning and educational process.
2. Steps of programme planning.
3. Community diagnosis, identifying needs and problems, facilitators and barriers for action programme.
4. Framing objectives, overall and specific.
5. Preparation of plan of operation phase-wise (concurrent field work).

**SUBJECT – 10: TRAINING AND EDUCATIONAL METHODS  
20Hrs**

1. Training – definition, concepts, differentiation between education and training, administrative considerations in training.
2. Training process: some conceptual models, functions of training, training strategy; establishing and defining training goals, principles and steps in curriculum development followed by laboratory session.
3. Introduction to teaching learning methods. Advantages and limitations, principles to be followed in using different methods in appropriate situations. Methods to be discussed: lecture, group discussion, buzz group, problem solving, brain storming, demonstration, symposium, panel discussion, case study, role play, programmed instruction, colloquy, dialogue, workshop, seminar.
4. Evaluation of teaching learning methods.
5. Lesson plan: components, principles and steps in preparation of lesson plan.
6. Field Training: concepts and importance and objectives.  
Field training strategy – steps in organization of field training.
7. Training evaluation: Need, importance, principles and procedures.  
Various aspects of training.

**SUBJECT – 11: COMMUNICATION PROCESS****14 Hrs.**

1. Communication : definition, process, its application in health education.
2. Models – different models of communication process.
3. Communication: Theories and principles.
4. Factors influencing communication – positive and negative.
5. Channels of communication.
6. Rumour – how to counter act – experiment.
7. Behaviour change communication.
8. IEC Strategy,

**COMMUNICATION – METHODS & MEDIA****20 Hrs**

1. Mass communication – definition – uses.
2. Basic model of communication applied to mass communication.
3. Essential elements of mass communication.
4. Mass psychology – audience, crowd and mob.
5. Mass communication in the context of ‘structures’ and ‘frame of reference’.
6. Mass communication – source credibility, public opinion, publicity and propaganda.
7. Mass communication and the receivers selective perception and retention.
8. Mass communication media as a social instrument.
9. Mass communication methods and media and their use in health education.

**MEDIA****26 Hrs**

1. Media – definition, classifications.
2. Process of preparation – principles and steps in preparation of aids – Pretesting.
3. Steps in using the materials – selection, planning, using and evaluation of aids.
4. Printed materials – Steps and principles involved – preparation and pretesting of printed materials such as folders, handbills – script-writing, production process.

5. Projected aids: definition – role of projected materials in health education – advantages – limitations. Steps and principles in planning projected aids such as filmstrip, slide and transparency. Preparation of handmade slides – how to use film strip / slide projector and motion film projector.
6. Non projected aids: definition, scope and use.
  - a) Graphic aids: definition – advantages – limitations – steps and principles in preparation and use of flash cards, posters, chart, graphs and printed materials such as leaflet, pamphlet.
  - b) Display boards: definition, advantages, limitations – steps and principles in using blackboard, flannel board, bulletin board, preparation of flannel cut outs.
  - c) Three dimensional aids: definition – role – advantages – limitations – types of models – diorama – mockup – study kit – how to use.
7. Traditional media: definition – principles in preparation and use of puppets – folk songs – drama – folk dance.
8. Exhibition: definition – principles of planning and designing visualization – planning an exhibition – techniques of evaluation.
9. New media technology – Internet and mobile phone

### **PAPER -I**

#### **COMMUNICABLE DISEASES CONTROL & NATIONAL HEALTH PROGRAMME.**

#### **SUBJECT-1: BASCIS HUMAN ANATOMY AND PHYSIOLOGY**

##### **A. Introduction to Anatomy and Physiology:**

Definition of Anatomy and Physiology

Structure and functions of cells and tissues.

##### **B. The following systems in the body will be discussed:**

- |   |   |
|---|---|
| a) digestive system                       | g) musculoskeletal system                       |
| b) respiratory system                     | h) endocrine system                             |
| c) Circulatory system                     | i) lymphatic system                             |
| d) excretory system                       | j) special senses:                              |
| e) reproductive system<br>(male & female) | - eye – ear – skin – smell –<br>- touch - taste |
| f) nervous system                         |   |

##### **C. Normal growth and development: Growth and development in various age groups, types of physical growth.**

## **SUBJECT – 2: HELMINTHOLOGY AND MEDICAL ENTOMOLOGY**

A. Helminths – types; characteristics; life cycle;

The following will be discussed: a) hookworm b) round worm  
c) pinworm d) tape worm e) guinea worm f) microfilaria

B. Arthropods of medical importance, classification, characteristics.

C. Mosquito : types – life cycle of Anopheles, Culex – Diseases transmitted – control measures.

D. Fly, Flea, Mite, Louse: life cycle–diseases transmitted – control measures.

E. Sterilization, disinfection and disinfestations: definition and methods of sterilization, disinfection and disinfestations – Laboratory session.

## **SUBJECT – 3: EPIDEMIOLOGY : CONTROL OF COMMUNICABLE AND NON-COMMUNICABLE DISEASES: MICROBIOLOGY**

A. Concept and scope of epidemiology: definition – concept – uses in public health.

B. Health and disease: definition – health and disease Continuum – Interaction between agent, host and environment – natural history of disease – definition of terms – epidemic, endemic, sporadic, pandemic, incubation period, reservoir, host, quarantine, and level of prevention.

C. Communicable diseases: definition – reservoir and source of infection – mode of entry and exit of organisms – channels of transmission – susceptible host – definition of terms: case, carrier, contact, vector, vehicle, fomites.

D. Classification of communicable diseases: caused by inhalation – ingestion, direct contact, inoculation – principles in control of those diseases and health education components.

E Specific communicable diseases: Occurrence – mode of spread – symptoms – prevention and control measures of the following:

- a) Chicken pox b) Measles c) Diphtheria d) Whooping cough
- e) Tetanus f) Cholera g) Typhoid and Paratyphoid h) Diarrhea and Dysentery (Enteric & Diarrhoeal diseases) i) Food poisoning
- j) Poliomyelitis k) Viral hepatitis l) Helminthic infestations : hookworm, round worm, pinworm and tape worm m) Malaria n) Filariasis

o) Kala azar, p) Tuberculosis q) Leprosy r) Sexually Transmitted Diseases and AIDS s) Common skin infections: Scabies, ringworm  
t) Rabies u) Plague v) Trachoma and conjunctivitis.

- F. Epidemiology of non communicable diseases and other conditions: Cancer, Cardiovascular diseases, Diabetes, Goitre, Blindness, injuries.
- G. Introduction to Microbiology: Historical development – role of microbiology in health and diseases.
- H. Bacteria: Definition – types – growth – spore formation – morphology – staining characteristics – viability.
- I. Viruses: Definition – types
- J. Protozoa: Definition – types – life cycle – cyst formation – Diseases caused by protozoa – amoebic dysentery, malaria.
- K. Fungi : Definition – types – diseases caused by fungi ringworm – laboratory sessions.
- L. Immunity: definition – concept and types of immunity – herd immunity and its importance in public health.
- M. Immunization: methods – schedules – storage – side effect – antiepidemic and international regulations.

#### **SUBJECT – 4: OCCUPATIONAL HEALTH**

- A. Introduction : Basic concepts of occupational health and its components.
- B. Environment and industry: temperature, humidity, air movement and radiation; effective temperature.
- C. Industrial toxicology: smoke, dust, fumes, smog, vapour gas etc; toxic gases; metals and solvents; Modes of entry; safe limits.
- D. Occupational diseases: heat disorders; Vibrations, repetition of motions; excess noise; dust diseases.
- E. Measures for control of industrial health disorders, primary and secondary (containment & ventilation).
- F. Accident prevention: Proper ventilation and personal protective devices.
- G. Factories Act; Industrial health services; Prevention of Child Labour Act.
- H. Plant sanitation and hygiene: house-keeping, water supply, and drinking water facilities, heating facilities; wash and locker room facilities; toilet facilities; restroom facilities.
- I. Health hazards in agriculture.
- J. Preventive measures and role of health education in occupational health.



## **SUBJECT – 5 : NATIONAL HEALTH PROGRAMMES**

- A. National Health Programmes : Need – broad concepts – strategy – control and eradication programmes.
- B. The following NHPs will be discussed:
- a) National Malaria Eradication programme.
  - b) National Filariasis control programme.
  - c) National Leprosy Eradication Programme.
  - d) National Tuberculosis Control Programme.
  - e) Diarrhoeal disease control programme.
  - f) Iodine deficiency disorders control programme.
  - g) National programme for control of Blindness.
  - h) National water supply and sanitation programme.
  - i) Guinea worm eradication programme.
  - j) National family welfare programme.
  - k) Universal immunization programme.
  - l) National STD / AIDS control programme.

### **PAPER-II**

## **HEALTH ADMINISTRATION AND ENVIRONMENTAL SANITATION**

### **SUBJECT – 1: PUBLIC HEALTH ADMINISTRATION**

#### **TOPIC - A: Health Plan**

- A. History of health services in India.
- B. Health survey and development (Bhore) committee report.
- C. Health survey and planning (Mudaliar) committee report.
- D. National plans: Planning commission and Five Year Plans: Social Services component and health; achievements, shortcomings and reasons thereof.
- E. Chadha Committee and Mukherjee committee reports – main recommendations and critical comments.
- F. Kartar Singh committee report and Multipurpose workers scheme: main recommendations and functions of all workers and supervisory place of professional health educator.

**TOPIC – B: Health organization.**

- A. Constitution of India: Provisions for health: National set up: Functions of Central Council of Health and Family Welfare: Union Ministry of Health and Family Welfare: Directorate General of health Services: Central Health Education Bureau
- B. State level set up, Health department: Directorate of Health Services: State Health Education Bureau: State AIDS Cell.
- C. Intermediate (including regional and sub-district) level set up: administration and co-ordination.
- D. Local levels: Urban – roles and functions of different types of health organization.
- E. Rural – democratic decentralization (block panchayatraj) Primary Health Centre setup.
- F. Multipurpose health workers scheme: Minimum Needs Programme.
- G. Functions and roles of personnel at different levels.
- H. Role of Professional Health Educator.
- I. Role of other agencies and mobilization of community resources.
- J. National Health Policy – current trends.
- K. Application of concept of community medicine in the existing health organization and infrastructure in the country.
- L. Primary Health Care – concept – approach & principle.
- M. Health Services in tribal areas.

**TOPIC – C: Management:**

- A. Principles of organization; behavioural approach; human factors; authority, power, managerial aspects applicable to health administration.
- B. Delegation of duty and authority:
- C. Staff functions.

- D. Communication principles applicable to management: techniques of communication: orders: manuals and guides.
- E. Reports and returns, records – information system.
- F. Supervision – goals and functions: leadership and supervision.
- G. Personnel management; minimizing of role conflicts. Morals and motivation of staff, personnel training, performance appraisal; utilization of man-power resources: team concept.
- H. Finances, budgeting.
- I. Material management.
- J. Public relations and reporting.

#### **TOPIC – D: Health Legislation**

- A. Public health-related laws: need and scope.
- B. Municipal Acts; main provision and areas; difficulties in enforcement.
- C. Important Central Acts: drug, birth and death, Indian factories Act, Prevention of food adulteration Act, E.S.I., Consumer Protection Act 1886, Child marriage & Restraint Act
- D. International health – Port health organization and quarantine.
- E. The role of community participation in effective enforcement of these Laws.

#### **TOPIC – E: International Agencies connected with Health**

- A. Interdependence in health, international health regulations – scope, objectives and functioning.
- B. WHO: Constitution, objectives, plans of operation: assistance.
- C. UNICEF: Constitution, objectives, functions, roles, various programmes.

- D. Other agencies like USAID, Colombo Plan; Common-Wealth, FAO, ILO, Swedish and Russian aid in various health programmes in the country.
- E. Rock feller Foundation, Ford Foundation, Population Council; and professional organizations.

## **SUBJECT – 2 : ENVIRONMENTAL HEALTH**

- A. Introduction to environment : Types of environment ;  
Components of environment : man and his environment.
- B. Community sanitary survey (group assignment)
- C. Environmental health problems in India : Problems in relation to water – sewage, refuse, air, food, housing and public places.
- D. Environment and Health : Need for improvement of environment.
- E. Environmental sanitation in the National Plans:  
National schemes for improvement of environment;  
Environmental sanitation in the community development and health programmes in the Five Year Plans.
- F. Water and diseases: source of drinking water; diseases transmitted through water.
- G. Pollution and protection of water supply: Source of Pollution : methods of protection of water supply at source, in distribution, and during storage.
- H. Purification and disinfection of water: Methods of purification for domestic and community consumption.
- I. Disposal of waste water : Methods of disposal of waste water in rural areas.
- J. Diseases transmitted through excreta and channels of transmission,  
Sanitary latrine as a sanitation barrier: Requirements of a sanitary latrine :  
Types of sanitary latrines – pit – latrine, VIP latrine, bore hole latrine, bucket latrine, aqua privy, water seal latrine with septic tank disposal, chemical closet, water carriage system: advantages and disadvantages of each: role of health educator, Observation visit to sewage works.  
Demonstration of sanitary latrines.
- K. Collection and disposal of refuse: Nature of refuse: systems of refuse collection and transport: methods of refuse disposal: role of health educator.

❖ IN EACH OF THESE UNITS THE HEALTH EDUCATOR'S ROLE SHOULD BE DISCUSSED.

- L. Food Sanitation: Public health importance of food and milk sanitation: sources of contamination: measures of sanitation for food and milk: sanitation of slaughter house and markets.
- M. Sanitation of food establishments: Sanitation of premises: Preparation, storage and serving of food handlers role of health educator.
- N. Home sanitation and health: Relation between housing and health principles of healthful housing.
- O. Sanitation of public places: Health problems associated with places of public gathering : sanitation of fairs and festivals: sanitation of refuge camps: role of health educator.
- P. Control of insects and rodents and dog destruction: Control of flies and mosquitoes: Control of rodents and rat proofing: Destruction of stray dogs: Role of Health Educator.

WB: Observation visits should be made in relation to each of the above units from 7 to 16.

### **PAPER-III**

## **MATERNAL CHILD HEALTH, NUTRITION AND HEALTH STATISTICS**

### **SUBJECT – 1: HEALTH STATISTICS AND DEMOGRAPHY**

- A. Introduction to (i) theoretical and applied statistics special reference to health statistics – specification, estimation, testing of hypotheses and inference: (ii) Demography concepts, definitions, purpose and uses.
- B. Sources of health demographic data: Institutional records, health and morbidity surveys, PHC records, case cards, NSS and adhoc surveys, census, registration of vital events, sample registration; exercise; study of case cards, questionnaires and schedules.
- C. Presentation of health data: (i) classification and tabulation: (ii) graphic presentation of data, linear graph, bar-chart, pie-diagram, histogram, frequency polygon, age-pyramid etc. – exercises.

- D. Percentages, rates and ratios relations to fertility, mortality and morbidity; Exercises; basic concepts of standardization of rates, Indicators of health, estimation of population.
- E. Measures of central tendency / location; mean, median, mode, quartiles and percentiles; exercises.
- F. Measures of variation / dispersion: range, standard deviation, variance, co-efficient of variation; Exercises.
- G. Basic concept of correlation and association.
- H. Sample surveys in health field, Exercises like drawing samples with the help of random number.
- I. Application of statistical methods to specific problems:
  - a) concept of significance test – chisquare tests
  - b) life tables. Exercises.
- J. Population trends in the world and in India; Population theories - Malthusian, Marxian and Demographic transition theories; their consequences – economic, social and health; serialization, migration and family planning.
- K. Factors influencing fertility.
- L. Principles in designing records and reports.

## **SUBJECT – 2: NUTRITION**

### **Topic – 1: INDIVIDUAL AND PUBLIC HEALTH NUTRITION**

- A. Introduction to nutrition: scope and importance of nutrition in promotion of health: classification of foods.
- B. Basic elements of foods; proximate principles and protective foods.
- C. Factors influence nutrition.
- D. Nutrients required for a balanced diet.
- E. Balanced diet for different age and sex groups, including vulnerable groups; planning a low cost balanced diet, dietary requirements for certain diseases and for convalescents, geriatric nutrition.

**TOPIC – 2: EFFECT OF NUTRITION ON HEALTH**

- A. Problems of malnutrition common in India and their prevention.
- B. Interaction of nutrition and infection
- C. Food-borne diseases and food hygiene.

**TOPIC – 3: IMPROVING THE NUTRITION STATUS OF THE COMMUNITY**

- A. Assessment of the nutrition status of the community; Nutrition and diet surveys.
- B. Changing food habits, Principles of nutrition education.
- C. Fortification and enrichment of foods and preservation of foods.
- D. Nutrient loss during storage, processing and cooking
- E. Nutrition intervention programmes; role of national and international agencies; role of health educator.

**SUBJECT – 3: REPRODUCTIVE AND CHILD HEALTH, FAMILY WELFARE.**

- A. Need and importance of RCH programme, childhood morbidity and mortality.
- B. Maternal care: Components of maternal care; antenatal care; post-natal care; immunization in maternal care; nutrition in maternal care. Service available for maternal care at various levels.
- C. Child care: Components of child care; care of newborn; care of infant; care of child from 1 to 5 years; immunization in child care; nutrition in child care; care of handicapped children and rehabilitation; services available for child care at various levels.
- D. Problems in utilization of maternal and child health services – socio-economic factors, organizational factors – corrective measures required.
- E. Reproductive and child health – introduction and approaches – components.

Identification of educational opportunities in various settings: Assisting other health personnel, immunization for MCH

**SUBJECT-4: FAMILY WELFARE**

- A. Concept of family welfare; Integrated approach to family welfare and MCH – need for small family size – economic, health, socio, psychological, ecologic and eugenic.
- B. Conventional methods of contraception: Classification of methods – mechanical devices, chemical contraceptives – natural methods – advantages and limitations of each method – services available.
- C. Intrauterine Devices: Development and types of IUD – mode of action – selection of suitable cases – method of insertion – follow up of cases – possible side effects – drop outs due to expulsion – services available.
- D. Oral contraceptive and methods of the future: Regimen and mode of action – Selection of suitable cases – follow up of cases – side effects – methods of the future – services available.
- E. Sterilization: Principles of sterilization; Vasectomy – selection and preparation of cases, method, instructions and follow up cases, re-anastomosis; Tubal ligation – selection of cases, method, instruction and follow up cases, re-anastomosis.
- F. Medical Termination of pregnancy: MTP in other countries and in India – indications for MTP – methods – problems in implementation of MTP Act – Services available and role of health educator providing moral support to cases.
- G. Infertility: Causes of infertility in the male and female; Need for investigation of both partners; services available.
- H. Educational programmes for family planning: Role of health educator in planning, conducting and evaluating educational programmes, special campaigns, intensive drives, exhibitions and leaders orientation training camp.

**SUBJECT – 5: SCHOOL HEALTH AND POPULATION EDUCATION**

- A. Introduction to school health and population education: Importance of school health and population education – Development of school health and population education programmes in India.
- B Health appraisal: Nature of health appraisal – cumulative health record – role of health personnel, teachers and parents – educational opportunities in the process.
- C Healthful school living: School sanitation including hostel sanitation – building, ventilation, lighting, seating, protected water supply, sanitary facilities. Promoting interpersonal relationships between teacher and pupil and among pupils – Games and recreation facilities – Child guidance – health counseling.



- D Preventive and curative services in schools: School health clinic – role of medical officer in school health education – immunization – accident and emergency services – health of school personnel – health education opportunities in the process.
- E. Nutrition in school health programmes: Nutrition education – feeding programmes including mid-day meals – food sanitation.
- F. Curriculum planning for health and population education: Need for and preparation of health and population education curriculum for different age groups; integration of health and population education in existing curriculum.
- G. Teacher preparation for health and population education: Teacher’s role and responsibilities in health appraisal, health instruction, and health and nutrition services; curriculum analysis with special reference to health and population education

#### **PAPER –IV**

### **COMMUNITY ORGANIZATION AND DEVELOPMENT AND HEALTH EDUCATION**

#### **SUBJECT – 1: COMMUNITY ORGANISATION**

- A. Community organization: Nature, concepts of community work, meaning of community organization; Principles and process
- B. Importance of community organization in health education, application in rural and urban communities.
- C. Mobilising the community for action: formation of committees: nature and functions; principles to be used for effective community work.
- D. Role of Health Education Specialist as a change agent in communication organization.
- E. Role of other agencies (Voluntary & Government) in the process of community organization.

#### **SUBJECT – 2: COMMUNITY DEVELOPMENT**

- A. Introduction to CD – definition, philosophy and principles, CD as a process, programme, method and a movement; need for CD in India.
- B. History of Community Development Programme in India.
- C. Progress of community development in India including tribal blocks.
- D. Organizational set up and functions of community development at the Central, State, District and block levels.

- E. Panchayat Raj – integration of Panchayat Raj with community development.
- F. Role of health educator in community development programme.
- G. Critical review of community Development Programme in India.

### **SUBJECT – 3: HEALTH EDUCATION.**

- A. Introduction to health education: concepts, objectives, philosophy, importance and need of health education in public health.
- B. Definition of Health education
- C. Principles of health education.
- D. Underlying disciplines and theories of health education.
- E. Ethics of the health education profession and attributes of the health education specialist.
- F. The role of the health education specialist in relation to other health personnel.
- G. Developing health education components in different programmes.
- H. Role of health education in the process of social change.

### **SUBJECT-4: PROGRAMME PLANNING.**

- A. Concepts, principles and process of programme planning and educational process.
- B. Steps of programme planning.
- C. Community diagnosis, identifying needs and problems, facilitators and barriers for action programme.
- D. Framing objectives, overall and specific.
- E. Preparation of plan of operation phase-wise (concurrent field work).

### **SUBJECT – 5: TRAINING AND EDUCATIONAL METHODS**

- A. Training – definition, concepts, differentiation between education and training, administrative considerations in training.
- B. Training process: some conceptual models, functions of training, training strategy; establishing and defining training goals, principles and steps in curriculum development followed by laboratory session.

- C. Introduction to teaching learning methods. Advantages and limitations, principles to be followed in using different methods in appropriate situations. Methods to be discussed: lecture, group discussion, buzz group, problem solving, brain storming, demonstration, symposium, panel discussion, base study, role play, programmed instruction, colloquy, dialogue, workshop, seminar.
- D. Evaluation of teaching learning methods.
- E. Lesson plan: components, principles and steps in preparation of lesson plan.
- F. Field Training: concepts and importance and objectives. Field training strategy – steps in organization of field training.
- G. Training evaluation: Need, importance, principles and procedures. Various aspects of training.

### **SUBJECT-6: PROGRAMME MONITORING AND EVALUATION**

- A. Definition, purpose, type and place of evaluation in Health and family welfare, concepts, principles and assumptions underlying evaluation.
- B. Monitoring : Definition, process and procedures
- C. Management Information System –
  - Monitoring as a process for programme development
- D. Process of evaluation, defining objectives, deciding about indices of measurement and criteria of effectiveness.
- E. Steps in designing evaluation.
- F. Designing and application of tools and techniques of evaluation and interpretation.
- G. Analysis of data and interpretation.
- H. Four laboratory sessions of 3 hours each on
  - Operationalizing the definitions.
  - Selection of indices.
  - Development of tools.
  - Working out evaluation on selected aspects of a programme.
  - Critical review of selected evaluation reports on Health and Family Welfare.
  -

**PAPER –V**  
**BEHAVOURAL SCIENCES & RESEARCH METHODOLOGY**

**SUBJECT – 1: BEHAVIOURAL SCIENCE IN RELATION TO HEALTH EDUCATION.**

- A. Introduction to behavioral sciences: Definitions, nature, scope, limitations and their relevance to health behaviour – contributions of sociology, social psychology, socio-cultural anthropology.
- B. Cultural basis of health behaviour: Culture – definition with special explanations of terms such as knowledge, beliefs, norms, values, Folkways, morals (Mores), taboos, habits, traditions, customs, religion, superstitions and types, characteristics and determinants of culture.
- C. Social bases of health behaviour: Society, community, social/community structure, leaders, leadership, group dynamics, family type, kinship, social stratification, social deviance; social support, social influence, social processes, Civilization.
- D. Socio-psychological bases of health behaviour: Behaviour – definition, formation, perception, attention, learning process, socialization, values, personality development, (Sigmund Freud) attitudes, status and roles – Motives, drives and needs, decision making process, motivation – Process factors, theories –Horndike, Skinner, Gestalt, Maslov, Force Field theory, RosenstockGreen; Herzberg – Two factor theory. Factors That impede or promote health behaviour.
- E. Cultural change: Traits, diffusion, enculturation, acculturation, assimilation, adoption processes, invention, innovation and discovery, factors influencing.  
 Social Change: Social, physical and technological change (Man and his environment).
- F. Planned change: Nature, scope, stages, strategy, Need & importance.

## **SUBJECT – 2: GROUP DYNAMICS**

- A. Introduction to group dynamics: objectives and methodology of organizing the Course
  - The lab group – Its purposes and norms to be followed.
  - Skills and knowledge of group dynamics.
- B. Participation : Factors that affect participation of members in a group. Learn how to learn.
- C. Relationship of individual and the group: Personal needs and group membership. Individuality and group influence and groups on the formation of norms and attitudes.
- D. Leadership and group performance: Leader and group structure. Situational factors affecting leadership – Function of leaders.
- E. Task and emotional levels of functions in affecting relation to group development and productivity. Factors affecting participation of individuals. Personal factors in selection and assimilation of group roles, group productivity.
- F. Differentiation of roles in task-oriented group; Group building roles, Group maintenance roles, Individual roles.
- G. Roles related to group structure and functions: Chairman, recorder, observer, group members.
- H. Communication patterns in task-oriented groups; communication as
  - a) interaction b) reciprocal c) expression. Situational factors in communication.
- I. Diagnosing group needs: Identifying and solving group problems – dealing with conflict and rejection in groups. Hidden agenda.
- J. Decision making in groups. The process of decision making in small groups. Leader-member responsibilities in the process of decision making.

## **SUBJECT – 3: MENTAL HEALTH**

- A. Concept of mental health – relation between mind and body; Individual and community.
- B. Criteria of health (normal) and unhealthy (abnormal) mind.
- C. Mechanisms of adjustment needs: physical, social & psychological.
- D. Some specific areas of mental health concern; ageing (geriatrics), delinquency and criminality, sub normality, suicide, neurosis, psychosomatic illnesses.
- E. Causes of mental / behaviour disorders; heredity vs. environment.
- F. Prevention of mental disorders and rehabilitation of mentally ill.

- G. Mental deficiency – causes and remedies.
- H. Community mental health and National Mental Health Programme.
- I. Role of health educator in the field of mental health working with the Government and NGO groups.
- J. Behavioural problems of children, types, causes and remedies.
- K. Drug dependence – Drug De-Addiction and Alcoholism.

#### **SUBJECT – 4: RESEARCH METHODOLOGY IN BEHAVIOURAL SCIENCES AS APPLIED TO HEALTH EDUCATION**

- A. Definition and scope of social research in health education.
- B. Overview on research process and steps.
- C. Critical review of relevant research and studies.
- D. Formulation of objectives and hypotheses.
- E. Independent, dependent and intervening variables.
- F. Types of studies; - Exploratory, descriptive, diagnostic, experimental, evaluative, cohort, epidemiological, cross-sectional and longitudinal (retrospective & perspective). Surveys and steps in data collection techniques.
- G. Types of data, sources, utilization and limitations.
- H. Method of collection of data – Observations, socio-metric, interviews, records and reports, questionnaires and schedules and projective techniques, case studies, focus group discussions.
- I. Development of instruments.
- J. Analysis of data – preparation of dummy tables, classification, analysis, tabulation and interpretation of data.
- K. Report-writing and presentation.
- L. Utilization of one's own study findings.
- M. Preparation of research proposal

#### **SUBJECT – 5: PROGRAMME MONITORING AND EVALUATION**

- A. Definition, purpose, type and place of evaluation in Health and family welfare, concepts, principles and assumptions underlying evaluation.
- B. Monitoring : Definition, process and procedures
- C. Management Information System – Monitoring as a process for programme development
- D. Process of evaluation, defining objectives, deciding about indices of measurement and criteria of effectiveness.
- E. Steps in designing evaluation.

- F. Designing and application of tools and techniques of evaluation and interpretation.
- G. Analysis of data and interpretation.
- H. Four laboratory sessions of 3 hours each on
  - Operationalizing the definitions.
  - Selection of indices.
  - Development of tools.
  - Working out evaluation on selected aspects of a programme.
  - Critical review of selected evaluation reports on Health and Family Welfare.

### **PAPER VI**

## **COMMUNICATION METHODS AND MEDIA**

### **SUBJECT – 1: COMMUNICATION PROCESS**

- A. Communication: definition, process, its application in health education.
- B. Models – different models of communication process.
- C. Communication: Theories and principles.
- D. Factors influencing communication – positive and negative.
- E. Channels of communication.
- F. Rumour – how to counter act – experiment.
- G. Behaviour change communication.

### **SUBJECT-2: MASS COMMUNICATION**

- A. Mass communication – definition – uses.
- B. Basic model of communication applied to mass communication.
- C. Essential elements of mass communication.
- D. Mass psychology – audience, crowd and mob.
- E. Mass communication in the context of ‘structures’ and ‘frame of reference’.
- F. Mass communication – source credibility, public opinion, publicity and propaganda.
- G. Mass communication and the receiver’s selective perception and retention.
- H. Mass communication media as a social instrument.
- I. Mass communication methods and media and their use in health education.

**SUBJECT-3: MEDIA**

- A. Media – definition, classifications.
- B. Process of preparation – principles and steps in preparation of aids – Pretesting.
- C. Steps in using the materials – selection, planning, using and evaluation of aids.
- D. Printed materials – Steps and principles involved – preparation and pretesting of printed materials such as folders, handbills – script-writing, production process.
- E. Projected aids: definition – role of projected materials in health education – advantages – limitations. Steps and principles in planning projected aids such as filmstrip, slide and transparency. Preparation of handmade slides – how to use film strip / slide projector and motion film projector.
- F. Non projected aids: definition, scope and use.
  - a) Graphic aids: definition – advantages – limitations – steps and principles in preparation and use of flash cards, posters, chart, graphs and printed materials such as leaflet, pamphlet.
  - b) Display boards: definition, advantages, limitations – steps and principles in using blackboard, flannel board, bulletin board, preparation of flannel cut outs.
  - c) Three dimensional aids: definition – role – advantages – limitations – types of models – diorama – mockup – study kit – how to use.
- G. Traditional media: definition – principles in preparation and use of puppets – folk songs – drama – folk dance.
- H. Exhibition: definition – principles of planning and designing visualization – planning an exhibition – techniques of evaluation.

**SUBJECT-4: EDUCATIONAL METHODS:**

Introduction to teaching learning methods. Advantages and limitations, principles to be followed in using different methods in appropriate situations. Methods to be discussed: lecture, group discussion, buzz group, problem solving, brain storming, demonstration, symposium, panel discussion, base study, role play, programmed instruction, colloquy, dialogue, workshop, seminar.

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