

PARAMEDICAL COURSE

Government of Kerala

Department of Health Services

CURRICULUM & SYLLABUS FOR DIPLOMA IN HEALTH INSPECTOR COURSE

GO(Ms)No.167/2012 H&FWD Dtd.04/06/2012

Prepared by

Public Health Training School, Thiruvananthapuram

(State Nodal Institution)



PAPERS FOR THE DIPLOMA IN HEALTH INSPECTOR (DHI) COURSE

DHI FIRST YEAR

PAPER I

Anatomy and Physiology

PAPER II

Nutrition, Hygiene, Basic Pharmacology and , Basic Microbiology

PAPER III

First Aid and Basic Medicine, Disaster Management and Rehabilitation, Disability Management

PAPER IV

Communicable Diseases and National Health Programmes and National Health Policy

PAPER V

Public Health & Primary Health Care, Job Responsibilities, Records and Reports, Family Welfare, Health Statistics & Population Education

DHI SECOND YEAR

PAPER I

Environmental Sanitation and Public Health Problems

PAPER II

Communication and Health Education

PAPER III

Fundamentals of Management, Public Health Act, Local Self Government and Project Preparation

PAPER IV

Behavioural Science - Sociology, Psychology and Mental Health

PAPER V

Non-Communicable Diseases, Biomedical Waste Management, Palliative Care and Geriatric Health

**PERCENTAGE OF TOPICS FOR THE QUESTION PAPERS OF DIPLOMA IN HEALTH
INSPECTOR (DHI) COURSE**

DHI FIRST YEAR

PAPER I

Anatomy]	
Physiology	-	100%

PAPER II

Nutrition	-	40%
Hygiene	-	20%
Basic Pharmacology	-	20%
Basic Microbiology	-	20%

PAPER III

First Aid and Basic Medicine	-	50%
Disaster Management and Rehabilitation	-	25%
Disability Management	-	25%

PAPER IV

Communicable Diseases	-	50%
National Health Programmes	-	40%
National Health Policy	-	10%

PAPER V

Public Health & Primary Health Care	-	30%
Family Welfare	-	30%
Job Responsibilities	-	20%
Records and Reports	-	10%
Health Statistics & Population Education	-	10%

DHI SECOND YEAR

PAPER I

Environmental Sanitation - 60%

Public Health Problems - 40 %

PAPER II

Communication - 50%

Health Education - 50%

PAPER III

Fundamentals of Management - 50%

Public Health Act - 30%

Local Self Government - 10%

Project Preparation - 10%

PAPER IV

Behavioural Science - Sociology - 50%

- Psychology - 40%

-Mental Health - 10%

PAPER V

Non-Communicable Diseases - 50%

Biomedical Waste Management - 20%

Palliative Care - 20%

Geriatric Health - 10%

GUIDE LINES ON CONDUCT OF THE COURSE AND EXAMINATION

Aims of the course:

To enable the learners

1. to develop knowledge on anatomy and physiology of organ systems of human body
2. to identify the felt need of the community
3. to understand of major public health issues
4. to understand the job functions of Junior Health Inspectors
5. to to develop academic and social skills such as effective communication, taking initiatives, leadership
6. to develop personal, social, moral and national values that make a person humane and enhances social effectiveness
7. to develop the skill in performing the job functions of Junior Health Inspectors in implementing National Health Programmes

Medium of instruction: The medium of instruction shall be in English.

Duration of the course : Two years

No. of instructional hours/ Year: 800

Teaching hours/ Day : 5

Attendance: 80 % of attendance during the course is a must. In case of sickness, 70 % of attendance with medical certificate of 10% of working days will be permitted to appear in the examination.

Practical Records: Students should submit one practical record for each paper i.e.5 Record books for each year, two weeks before model examination. Each practical record should contain 10 assignments. The topics for Record book for each Paper is enclosed along with the curriculum and syllabus.

Admission to Examination: No student who has been expelled or is under punishment or is debarred from appearing in the examination for any reason whatsoever should be admitted to final examination conducted by Para Medical Council. A candidate who had failed in the previous final examination conducted by Para Medical Council will be eligible to reappear at the subsequent examination.

Scheme of examination is annual.

Marks Allotted For Examination For Each Year

Theory Examination- 100

Viva-voce - 50 (Oral examination-25, Record-15 Internal Assessment-10)[Internal Assessment -20% for attendance(2 marks) , 50% is based on total of best two marks among all the tests conducted during the course and marks secured for model examination (5 marks) , 30% for assignments, over all performance and discipline (3 marks)]

Total 150 marks

Total marks for each year in each year=150X5 Papers=750 marks

Viva-voce team should comprise of two competent officers among whom one person should be competent to deal with medical topics and the other should be a para medical/non-medical person. The students' performance will be evaluated based on subject wise knowledge, Record and competency in field experience. Minimum mark for a pass is 50% each for written examination, viva-voce and internal assessment for all papers.

PASS MARK - 50-59% (375-449 marks)

FIRST CLASS - 60-74% (450-562 marks)

DISTINCTION - 75% and above (563 and above)

Pattern of Question Paper

Time:3 Hrs.

Total Marks:100

<u>Sl. No.</u> <u>Marks</u>	<u>Particulars</u>	<u>Mark</u>	<u>No. of Questions</u>	<u>Total</u>
1	Essay	15	2	30
2	Short Notes	5	5	25
3.	Answer In one or two Sentences	2	5	10
4.	Objective type Questions (Objective type questions may be of a. Multiple Choice b. Match the following c. Name the following d. Abbreviation e. Fill in the Blanks)	1	35	35

DIPLOMA IN HEALTH INSPECTOR COURSE – 1st YEAR

Paper I - Anatomy & Physiology

Subjects	Hours of teaching	Marks			
		Theory	Viva	Record	Internal
Anatomy & Physiology	160	100			
Total	160	100	25	15	10
Total Marks			150		

Definition of Anatomy & Physiology

Usual terms used in Anatomy like

Anterior & Posterior

Dorsal & Ventral

Superior & Inferior

Medial & Lateral

Proximal & Distal

Internal & External

Superficial & Deep

Palmar, Plantar & dorsal etc.

Living cell - Definition, structure with Diagram, functions,

Tissue – Definition-types – names and special characteristics

Organ & Organ system – Definition, Examples

Organ included in each system.

Skeletal system

Types of bones with examples - long bone, flat bone, irregular bone, short bone, sesamoid bone

Bones forming skeleton

Function of skeletal system

Classification

Axial

Appendicular skeleton

Axial – Bones involved

- Cranial bones - Name

Name of sutures & fontanelles

- Facial bones– (number, important bone - mandible, Air sinuses.

Ribs and sternum

Numbers and types

Vertebra – number, types and curvatures

1st & 2nd cervical vertebrae – name - importance

Lumbar puncture

Intervertebral disc - importance

Appendicular skeleton

Bones of upper limb
Bones of lower limb
Bones taking part in pectoral girdle & pelvic girdle

Joints

Classification
Synovial joint – types & structure with diagram

Muscular system

Types of Muscles
Characteristics of each type
Neuromuscular junction – basic knowledge
Muscles of Respiration

Nervous system

Introduction and definition
Neuron – structure with diagram
Synapse – structure with diagram
Brain and Spinal cord – basic knowledge
Meninges and Cerebro Spinal fluid
Cranial nerves – number & names
Spinal nerves – names and number
Reflex action & reflex arc

Special senses

Eye – structure and physiology with diagram
Ear – Structure with diagram and physiology of hearing
Nose – basic anatomy and physiology
Tongue – basic anatomy and physiology
Skin – structure with diagram and functions of skin

Circulatory system

Introduction
Heart- structure, position, size, relation, covering, chambers, related blood vessels
Diagram showing chambers of heart & major blood vessels.

Functions of heart

physiology of heart function-

Conducting system of heart
Pacemaker
Atrial and ventricular systole
Cardiac cycle
Cardiac output
Stroke volume
Pulse (definition & rates in age group)
Blood pressure (Definition & factors
maintaining Blood pressure
Pulse pressure
ECG- Definition

Blood vessels	Types & difference of Blood vessels (Artery, vein & capillaries) Major blood vessels of body
Blood	Constituents Different blood cells Identifying features of Blood cells Normal count Site of haematopoiesis in adults Functions of Blood Clotting of Blood
Lymphatic circulation	Formation of Lymph – basic points Circulation and functions of Lymph(essential points)

Respiratory System

Introduction

Organs involved

Respiratory passages - Function

	Changes happening to air during in breathing
Larynx	- Basic structure & function Vocal cords
Trachea	- Basic structure
Bronchus	- Basic structure
Lungs	- structure and function, position, relation, coverings, lobes, root of lung, basic knowledge of parenchyma, blood vessels related, alveoli gas exchange Lung volume – Total air capacity, vital capacity, tidal volume
Respiration	- Pulmonary and tissue respiration, rate and control of respiration, respiratory movements.

Digestive system

Alimentary tract – Organ with diagram

Mouth
Tongue a muscular organ, Mucosa, Taste Buds,
Saliva (Composition & function), NS.

Teeth
Type, structure with diagram , function, Dentition.

Pharynx
Basic anatomy and function

Oesophagus
Position, relation and function

Stomach
Position, relation, parts and function, Gastric Glands
overview

Intestine

- Small Intestine	Basic structure , Parts & function
- Large Intestine	Parts structure

Physiology of digestion and absorption of food

Organs help in the process of digestion

- Salivary glands,
- Pancreas
- Liver & Gallbladder
- Enzymes involved in the process of digestion

Peritoneum - Over view

- Excretory system
- Kidney
 - Nephron
 - Physiology of urine formation – important steps
 - Micturition
 - Characteristics of urine
- Endocrine system
- Endocrine glands
- Reproductive System
- Female Reproductive System
 - External and internal organs
 - Male Reproductive System
 - Physiology of conception

Core Reading:

Text book of Anatomy and Physiology – Evelyn Pearce

Further Reading:

Anatomy and Physiology – B D Chaurasia
- Ross & Wilson

Topics for Record

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

1. Structure of the human cells
2. The Joints of the skeleton
3. Heart
4. Functions of the liver
5. The Endocrine glands
6. Nephron
7. Structure of the eye and physiology of vision
8. Physiology of respiration
9. Structure of brain
10. Male and female reproductive organs

Paper II : Nutrition, Hygiene, Basic Pharmacology, Basic Microbiology

Subjects	Hours of teaching	Marks			
		Theory	Viva	Record	Internal
Nutrition	64	40			
Hygiene	32	20			
Basic Pharmacology	32	20			
Basic Microbiology	32	20			
Total	160	100	25	15	10
Total Marks			150		

Nutrition

- Introduction to the study of nutrition
Definition: relation of nutrition to health relation of other factors of importance to nutritional status and health e.g. infections.
- Classification and functions of foods body building, energy yielding, and protective foods.
- Nutrients – carbohydrates, proteins, fats, vitamins, minerals; functions, sources and daily requirements of each calorie requirements; water and cellulose.
- Nutritive value of food – nutritive value of foodstuffs

Cereals	Pulses	Fats & oils
Vegetables	Milk & Milk products	sugar
Fruits	Egg, meat & fish	Condiments
		Spices
		Beverages

Enriching substance diets with locally available foodstuffs.

- Balanced Diet – The balanced diet
Definition; Factors to considered in planning meals; improvement of diets; selection of foods; cultural factors; nutritional requirements for special groups vulnerable groups; improving maternal nutrition and child nutrition. Modified diets – liquid, bland, soft, full.
- Food management- preparation and preservation of food – General principles of cooking; methods of cooking, effects of cooking on nutrients and common foodstuffs, fortification.
Preservation of foods- household methods
Food hygiene – simple household measures.
- Cultural factors in nutrition
Foods fads, food habits
Food adulteration practices injuries to health
- Nutrition education – principles of imparting nutrition knowledge.
Dietary survey.
- Nutrition Programmes
- Malnutrition
Malnutrition, under nutrition; causes; inter relationship of factors leading to malnutrition, e.g. infections, worm infections, worm infestations.
Deficiency diseases in the country including vitamin deficiencies protein energy malnutrition, goiter
- Food Hygiene: Definition, preparation, preservation, storage , handling of food.
- Food manufacturing units , classification.
- PFA Act- overview
- Food poisoning – Causes, sampling techniques, transportation of samples Reporting.

Hygiene

Hygiene

- Introduction to hygiene and healthy living

- Factors influencing health and healthy living
- Health habits and practices – recognizing positive and negative practices in the community
- Personal Hygiene
 - Skin care, cleanliness, clothing; care of the hair, prevention of pediculosis.
 - Dental care and oral hygiene.
 - Care of hands, hand washing care of nails.
 - Hygiene of elimination.
 - Menstrual Hygiene.
 - Posture:prevention of postural defects: exercise, rest, relaxation and sleep
 - Care of the face; eyes nose and throat.
 - Care of feet.
- Periodic health examination: Health examination ; health record immunity and infection; immunization; detection and correction of defects, common colds, indigestion headache.
- Health in the home: Home as a centre for healthy living. Safety in the home; common home hazards.

Basic Pharmacology

Introduction- Definition – terminology, Abbreviations & Expansions

Sources of drugs

Preparations & dosage of drugs

Routes of drug administration

Absorption of drug

Bio transformation of drug

Excretion of drugs

Mechanism of drug action

Effects of drug

Factors modifying drug effect

Life saving drugs

Overview the following group of drugs

- Analgesics
- Anesthetics
- Antipyretics
- Anti coagulants
- Anti Hypertensive
- Antiasthmatics
- Antiemetics
- Antibiotics
- Antiseptics
- Diuretics
- Drugs commonly used in psychiatric Medicine
- Disinfectants
- Hypoglycemic agents
- Haematinics
- Hormones
- Laxatives
- Sedatives etc.

Basic Microbiology

- Classification, characteristics
- Basic details about bacteria and viruses
- Overview of parasites, fungi, yeasts & moulds
- Universal Presence of Micro Organism
- Conditions affecting the growth bacteria, virus, parasites, fungi, yeasts & molds.
- Infection, Infestation
 - Difference between infection & disease, sources and modes of infection, mode of transmission, portal of entry and exit. Factors which favor and hinder infection.
- Immunity, Hyper sensitivity, Allergy, Antigen – Antibody reaction, vaccines.
- Collection ,Storage and transportation of specimens for bacteriological examinations
- Basic points about culture, Media, Various important media used.
- Basics of bacteriology and virology
- Identification and destruction of Micro organism; Disinfection & sterilization – various methods used.
- Overview of parasitology & types of Nematodes

Core Reading:

For Nutrition and Hygiene – Essentials of Community Health Nursing - K.Park
For Basic Pharmacology – Text Book of Basic Pharmacology – Dr.Murugesh
Fundamentals of Nursing - Sr.Nancy
Basic Micro Biology - Dr.Ananthanarayanan

Further Reference:

Preventive and Social Medicine – K.Park
Text of preventive & social medicine by Piyush Gupta & P.O.Ghai

Exercise

- Identification of common food items – Their nutritive values, food additives, fortifiers, iodized salt, food adulteration materials.
- Prepare charts, diagrams and models regarding, common adulterants, sampling techniques.
- Charts and models related to personal hygiene.
- Identification (tablets, capsule, spansules, Trans dermal patch, Inhalers, nebulizers), Insulin syringes, IV set, ORS, DOTS strip, oral contraceptive strips, Medicine related to National Health Programs.
- Collection of Blood and preparation of smear, Identification of blood cells
- Identification of Parasites in stool
- Identification of culture bottles, storage materials, cultures extra.
- Nutrition of Urine sugar and albumin.

Topics for Record

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

1. Vitamins and minerals
2. Nutritional requirements of special groups
3. Food hygiene & Sanitation of eating places
4. Effects of cooking in different types of food.
5. Exercise –Types & importance
6. Oral hygiene
7. Mechanism of Action of drugs in human body
8. Toxic effect of drugs in human body.
9. Universal presents of Micro organism
10. Disinfection & sterilization

Paper III

First Aid & Basic Medicine, Disaster Management & Rehabilitation, Disability Management & Rehabilitation

Topics	Hours of teaching	Marks			
		Theory	Viva	Record	Internal
First Aid & Basic Medicine	80	50			
Disaster Management & Rehabilitation	40	25			
Disability Management & Rehabilitation	40	25			
Total	160	100	25	15	10
Total Marks			150		

First Aid & Basic Medicine

First Aid

Introduction

- Definition of first aid, Purpose of first aid, Scope of first aid
Definition of Medical aid
Definition, qualities & responsibilities of first aider.
Principles of emergency care
Management of emergency situation
Golden rule of first aid.
Cardio Pulmonary Resuscitation

- Injuries to bones and joints - **Fracture, definition, types, signs & Symptoms, management, First aid measures of injuries to upper extremities, lower extremities, skull, rib, spine and pelvis**
- Wounds and hemorrhage - **Joints – dislocation and injuries. wounds – definition – types Hemorrhage – definition – types – control and management Hemorrhage from special regions**
- Poisons, bites, stings & foreign body - **First aid management,**
- Unconsciousness - **Definition, first aid management.**
- Injuries**
 - Thermal** - **Burns and scalds, rule of nine**
 - Electrical** - **First aid management**
 - Chemical** - **First aid management**

First aid procedures, supplies and equipments

- Application of bandages, slings, dressing, splints
- Lifting and transportation of casualty.
- First aid kit

Basic Medicine

Introduction

Principles of Medical care and treatment of minor ailments

- Home nursing and elementary medical care
- Hygiene of the patient – feeding, comfort measures, change of position, rest, recreation,
- observation of the patient's temperature, pulse, respiration, blood pressure, **skin & general condition.**

Signs, symptoms & Treatment of minor ailments

- conditions affecting the skin-
 1. Rashes
 2. Scabies
 3. Ulcer
 4. Swelling
 5. Pallor
- Conditions affecting the ear & eye
 1. Earache
 2. Discharging ear
 3. Foreign body in ear
 4. Foreign body in eye
 5. Jaundiced eyes
 6. Blurred vision
 7. Eye injuries

8. Red eyes (Inflamed)
 - Conditions affecting the Skeleton
 1. Joint pains
 2. Swelling of joints
 - Conditions affecting the respiratory system
 1. Bleeding from the nose
 2. Foreign body in the nose
 3. Upper respiratory infection
 4. Cough with fever
 5. Haemoptysis
 6. Shortness of breath
 - Conditions affecting the digestive system
 1. Diarrhoea – mild – severe with blood or mucus
 2. Abdominal pain
 3. Constipation
 4. Blood in stools
 5. Toothache
 6. Worm infestation
 - Conditions affecting urinary system
 1. Painful & frequent micturition
 2. Retention of urine
 3. Haematuria
 4. Nocturnal Enuresis
 5. Incontinence
 - Conditions affecting neuro muscular system
 1. Fever
 2. Headache
 3. Backache
 - Conditions affecting reproductive system
 1. Painful menstruation
 2. Prolapse
 - Basic Medical care of the children
 1. Child with fever
 2. Child with convulsions
 3. Child with developmental disorders
 4. Adverse reaction to vaccination

Recommended Text Books:

Text Book of First Aid by St. Johns
 A Text Book for Health Worker by A.M. Chalkley
 Basic Medicine by P.J. Metha

Disaster Management and Rehabilitation

- I. Disaster – Definition.- features.
 Types of disasters – natural – man made – major disasters – minor disaster –
 impact of disaster. (2 hrs)

- II. Disaster Management Definition – objectives
 - Disaster Management cycle –prevention – mitigation – preparedness – relief – Rehabilitation definitions – detailed discussion.
- III. Management of mass casualties - Search rescue & first aid – field care - triage – tagging – identification of death.
 - Relief phase of disaster – epidemiological surveillance & Disease control – nutrition.
 - Rehabilitation – water supply – food safety Basic sanitation & Personal Hygiene – vector control.
- IV. Disaster Actor – Govt. – The UN System – NGOS – Internation Aid & Bilateral Donors – their roles
- V. Flood – further - measures taken before/ during/ after flood – guidelines to be followed before leaving house – emergency kit items.
- VI. Earth quakes –features - measures taken before /during/after earthquake.
- VII. Thunder & lightning –features - measures taken/at the time of thuder & lightning
- VIII. International Agencies providing health & Humanituran Assistance for Disaster management - Inter governmental agencies – role of meteorological Department - some major disasters in India – world Disaster Reduction Day.

Books Recommended:-

1. Park text book on preventive & Scocial Medicine by K.Park
2. A text book for the Health worker (ANM) Vol. I - by A.MChalkley(latest edition)
3. Hand books” and “Revnens” Published by Institute of Land and Disaster Management, Trivandrum

Further reference:-

1. Understanding Disaster Risk Management
 - Disaster Risk Management Programme by united nations Development Programme & Department of Revenu, Government of Kerala.
2. Hand book on earthquake Reduction – Published by unban earth quak vulnerability reduction project GOI – UNDP – Project.

Disability Management and Rehabilitation

- I. Disability - WHO classification of disability – Definitions - impairment disability – Handicap.
 - Evolution of a disease into handicap – steps progression of handicap in post polio Residual paralysis.
 - Types of disabilities - problems in having a disability
- II. Deafness – definition – types causes – before birth – during birth – after birth
 - CSOM – Presbyacusis
 - Level of prevention of deafness – primary level – secondary level – tertiary level
- III. Visual Disability – definition - low vision – legally blind – totally blind.
 - Causes of blindness in India. Cataract – glaucoma – conceal disorders – refractive errors – vit.A deficiency – diabetic relinopathy.
 - Preventable blindness – curable bliness – avoidable blindness.
 - Level of prevention of blindness - Primary level – secondary level – tertiary leve.
- IV Orthopedic disability– definition causes – levels of prevention -
 - primary level – secondary level – tertiary level
- V Exemptions & Assistance available to the disabled – various types of institutional

rehabilitations –Disability Act 1995 – provisions of disability Act
World Day for the disabled .

Books recommended: Text of preventive & social medicine by piyush gupta & P.O.Ghai

Exercise :

Taking & Recording Pulse, Respiration, Temperature & Blood Pressure.
Recording of Height & weight
Measuring Mid – arm circumference & waist
Calculation of Body Mass Index
Demonstration of Cardio Pulmonary Resuscitation
Demonstration of application of Dressings, Slings, Bandages & Demonstration of
lifting & transportation of casualty & various first aid procedures
Acquire knowledge about various types of congenital defects, acquired defects.
Collection of Charts related to rehabilitation of the challenged.
Collection of details regarding Autism & various therapies related to it
Gather information about storms, Hurricanes- their features – latest major events -
measures to be taken when cyclone and after emergency.
Discuss and prepare report on role of health worker in disaster management.
Gather information about storms, hurricanes – their features-latest major events
– measures to be taken when cyclone in on and after emergency.
Diseases and prepare report on role of health workers in disaster management.
Acquire knowledge about various types of congenital defects (Eg: Harelip, cleft
palate, club foot ,congenital dislocation of lip etc.
Acquired defects
(Eg: defects developed as a result of infections)
Collection of charts related to rehabilitation of the challenged.
Collection of details regarding autism and various therapies relating to it.

Topics for Record

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

- 1.Cardio Pulmonary Resuscitation.
2. Wounds and bleeding
3. Fractures and dislocations
- 4.Fever
- 5.Bronchopneumonia in children
- 6.Disaster management – Definition objectives and Disaster management Cycle.
- 7.Role of Health workers in Disaster Management
- 8.Measures advised before/during and after, a flood.
- 9.WHO classification of disability – common types of disabilities and related levels of prevention of each
- 10.Disability Act 1995 provisions of the ACT–Benefits available to the disabled.

**PAPER IV
COMMUNICABLE DISEASES
NATIONAL HEALTH POLICY & NATIONAL HEALTH PROGRAMMES**

Sl. No.	Item	Marks (Theory)	Hours of teaching	Other details
1	Communicable Diseases Theory & Exercise	50	80 Hours	Theory: 100 marks Viva-voce: 50 marks - Record: 15 - Oral : 25 Internal Assessment: 10 marks TOTAL: 150 MARKS
2	National Health Programmes Theory & Exercise	40	64 Hours	
3	National Health Policy Theory & Exercise	10	16 Hours	
Total		100	160 Hours	150 marks

COMMUNICABLE DISEASES

I. Definition of communicable diseases

1. Classification- according to mode of spread – air borne, soil borne, food and water borne, vector borne, direct contact.
2. Salient features- very common, cause death and / disability, cause epidemics, mostly preventable, many affect infants and children.
3. Public health importance of communicable diseases

II. Basic concepts of epidemiology

Epidemiology- definition, Factors responsible for the spread of communicable diseases- Agent factors, Host factors and Environmental factors, Disease cycle, Spectrum of disease, Levels of prevention- primary, secondary and tertiary prevention

III. General Epidemiology

1. Definitions- Infection, Epidemic, Endemic, Sporadic, Pandemic, Zoonoses, Communicable disease, Non- communicable disease, Incubation period, Isolation, Carrier, Fomites, Vector, Virulence, Pathogenicity

2. Disease transmission-Source of infection, Mode of transmission-Direct and indirect transmission, Direct transmission-Direct contact, Droplet infection, Contact with soil, Inoculation into skin or mucosa, Transplacental transmission, Indirect transmission- Vehicle borne transmission, Vector borne transmission, Air borne transmission and Fomite borne transmission and Portals of exit

3. Immunity- Definition, Classification of immunity- Natural and acquired immunity-
Acquired immunity-Active and Passive immunity, Antiserum, Human gamma globulin, Antisera Hypersensitivity -immediate/antibody mediated, delayed/cell mediated type – Adverse effects after immunization

4. Immunizing agents- Vaccines-Live attenuated, killed, toxoids, combined vaccines – National Immunization Schedule- Cold chain, Cold chain equipment

5. General measures of Control of infectious diseases-
a. Controlling the source or reservoir of infection-Early diagnosis, Notification, Isolation, Treatment, Surveillance, Disinfection
b. Blocking the channels of transmission
c. Protecting the susceptible population

IV. Water borne diseases-

1. Poliomyelitis- Definition-Epidemiological factors- Agent, Source of infection, Age, Environmental conditions, Period of infectivity, Immunity, Mode of transmission, Incubation period – Clinical features – Prevention- Pulse Polio Immunization

2. Viral Hepatitis-Hepatitis A,B,C,D and E – Definition- Epidemiological factors- Agent, Source of infection, Infective material, Age, Immunity, Mode of transmission, Incubation period – Prevention and control

3. Acute diarrhoeal diseases- Definition, Aetiological agents, Mode of transmission, Control measures -Diarrhoea management- ORT-Preparation of ORS- Demonstration-Diarrhoea treatment unit in a PHC/ a hospital set-up- Prevention

4. Cholera- Definition - Epidemiological factors- Agent, Source of infection, Infective material, Environmental conditions, Age, Immunity, Mode of transmission, Incubation period – Clinical features – Control- diagnosis, notification, case finding, oral rehydration, antimicrobial treatment, disinfection, sanitation measures, vaccination, chemoprophylaxis, health education

5. Typhoid - Definition - Epidemiological factors- Agent, Source of infection, Infective material, Infective period, Age, Immunity, Poor Sanitation, unhygienic habits, Mode of transmission, Incubation period –Control-Prevention- Anti-typhoid vaccine

6. Food poisoning-Definition, types of food poisoning, Salmonella food poisoning, Staphylococcal food poisoning, Botulism- Prevention and control

7. Amoebiasis- Clinical features, Epidemiological factors- Agent, Soil conditions, Human habits, Mode of transmission, Incubation period –Control and prevention

8. Ascariasis- Life cycle of round worm, Clinical features, Epidemiological factors- Agent, Soil conditions, Human habits, Mode of transmission, Incubation period –Control and prevention

9. Hook worm infection- Life history of hook worm, Clinical features, Epidemiological factors- Agent, Soil conditions, Human habits, Mode of transmission, Incubation period –Control and prevention

10. A brief description of Taeniasis and Hydatid disease

V. Air borne diseases:-

1. Tuberculosis- Definition-Epidemiological factors- Agent, Source of infection, Age, Sex, Rural and Urban areas, Social factors, Period of infectivity, Immunity, Mode of transmission, Incubation period – Clinical features –Tuberculin testing, Control and Prevention- DOTS, B.C.G. vaccination, Health Education

2. Small pox- Definition and overview; difference between small pox and chickenpox

3. Chickenpox- Definition-Epidemiological factors- Agent, Source of infection, Age, Period of infectivity, Immunity, Mode of transmission, Incubation period – Clinical features – Control and Prevention

4. Measles- Definition-Epidemiological factors- Agent, Source of infection, Age, Sex, Period of infectivity, Immunity, Mode of transmission, Incubation period – Clinical features – Complication, Control and Prevention

5. German Measles- Definition-Epidemiological factors- Agent, Source of infection, Age, Infective material, Immunity, Mode of transmission, Incubation period – Clinical features – Public health importance and Prevention

6. Mumps- Definition-Epidemiological factors- Agent, Source of infection, Age and sex, Period of infectivity, Immunity, Mode of spread, Incubation period – Clinical features –Prevention

7. Influenza-Definition-Epidemiological factors- Agent, Source of infection, Age and sex, Human mobility, Period of infectivity, Immunity, Mode of transmission, Incubation period – Clinical features – Control and Prevention

8. Diphtheria-Definition-Epidemiological factors- Agent, Source of infection, Age, infective material, Infectivity, Mode of transmission, Incubation period – Clinical features – Treatment, Schick test, Control and Prevention

9. Whooping cough- Definition-Epidemiological factors- Agent, Source of infection, Age, Period of infectivity, Immunity, Mode of transmission, Incubation period – Clinical features – Control and Prevention

10. Acute Respiratory Infection- Definition-Epidemiological factors- Agent, Host factors, Mode of transmission – Clinical features – Control –Classification of illness and management

11. Severe Acute Respiratory Syndrome(SARS)- Definition , Symptoms, Incubation period, Mode of transmission, Control and Prevention

12. Leprosy: Definition, Epidemiological factors- Agent, Source of infection, Infective material, Age, Sex, Social factors, General factors, Mode of transmission , Incubation period- Classification- Control measures

13. Influenza A H1N1- Definition , Symptoms, Incubation period, Mode of transmission, Control and Prevention

Familiarize - Avian Influenza, West Nile Fever, Ebola hemorrhagic fever

VI. Vector borne diseases:-

1. Malaria- Definition, Epidemiological factors- Agent, Life cycle of malarial parasite, Source of infection, Mode of transmission, Incubation period – Clinical features –Vector Survey- Measurement of malaria (Spleen Rate, Parasite Rate, Parasite Density Index, Infant Parasite Rate, Proportional case Rate, API, ABER, AFI , SPR, SFR) anti-malarial measures –Malaria drug policy- vector management- prevention

2. Filariasis- Definition, Epidemiological factors- Agent, Life cycle of the parasite, Source of infection, Mode of transmission, Incubation period –Clinical features – Control of filariasis and Prevention, MDA program

3. Dengue fever- Epidemiological factors- Agent, Source of infection, Mode of transmission, Incubation period – Clinical features, Diagnosis and Treatment of Classical Dengue fever, Dengue haemorrhagic fever and Dengue Shock Syndrome- Control measures

4. Chikungunya- Source of infection, Mode of transmission, Incubation period – Clinical features, Control and Prevention

5. Japanese encephalitis- Source of infection, Mode of transmission, Incubation period – Clinical features, Control and Prevention

Familiarize with Yellow fever, Kala Azar- Leishmaniasis, West Nile Fever

VII. Zoonoses:-

1. Rabies - Definition-Epidemiological factors- Agent, Source of infection, Infective material, Mode of transmission, Incubation period – Clinical features – Control and Prevention

2. Leptospirosis- Epidemiological factors- Agent factors-Agent, Source of infection, Animal reservoirs Host factors-Age, Occupation, Immunity -Environmental factors, Mode of transmission, Incubation period – Clinical features –Diagnosis, Control and Prevention

3. Human Plague- Epidemiological factors- Agent factors-Agent, Source of infection, reservoir Host factors -Environmental factors, Vectors- Mode of transmission, Incubation period –

Clinical forms – Bubonic plague, Pneumonic plague, Septicaemic plague ,Diagnosis, Control and Prevention

Familiarize Brucellosis, Rickettsial diseases, Anthrax and Yellow fever

VIII. RTI/STI

1. AIDS-Definition- Epidemiological factors- Agent, Source of infection, Infective material, Age, High risk groups, Immunity, Mode of transmission, Incubation period – WHO case definition for AIDS surveillance -Control and Prevention

Familiarize Syphilis, Gonorrhoea, Chancroid, Donovanosis

IX.Surface infections

1.Tetanus- Epidemiological factors: Agent factors-Agent, Reservoir of infection, Exotoxin, Period of communicability, Host factors-Age, Occupation, Rural-urban differences, immunity, Environmental and Social factors, Mode of transmission, Incubation period, Neonatal tetanus - Prevention

2.Trachoma- Epidemiological determinants: Agent factors, Host factors, Environmental factors, Mode of transmission, Incubation period, Control of Trachoma

X. Other communicable diseases:-

1. Scabies- Definition-Epidemiological factors- Agent, Source of infection, Age, Mode of transmission, Incubation period – Clinical features –Control and Prevention

Core reading

1. Park,K.Essentials of Community Health Nursing- Latest Edition

Further reading

1. Park,K. Park's Textbook of Preventive and Social Medicine- 20th Edition

NATIONAL HEALTH PROGRAMMES

I.Health –Definition- National Health Programmes – Aims - International agencies supporting national health programme

II.National Rural Health mission (NRHM)

Aim of launching the programme – a combination of RCH phase II, National Diseases control programme, IDSP, NVBDCP-objectives of NRHM - Goals to be achieved by NRHM at national level and at community level – selection of ASHA – role and responsibilities of ASHA.

III. National Family Welfare Programme _ Family planning-Family welfare-
 Universal Immunization Programme- EPI – Preventable childhood Diseases – Objectives of
 UIP – additional component in UIP 1985. –Immunization programme –immunization schedule-
 Pulse Polio Immunization Programme
 Diarrhoeal Diseases Control Programme

IV. RCH Programme- evolution - components –RCH phase -1-Family planning, Child survival
 and safe motherhood, Client approach to health care , Prevention and management of
 RTI/STD-AIDS

-Main highlights of RCH program-Essential obstetric care, Emergency obstetric care, 24 hour
 delivery services at PHCs/CHCs, Control of RTI and STD, Immunization, Essential new borne
 care, ORT, Acute respiratory disease control, Prevention and Control of Vit.A deficiency and
 anaemia in children, Initiatives taken after adoption of National Population Policy 2000-RCH out
 reach scheme, Introduction of Hepatitis B vaccine, Training of dais, Empowered Action Group,
 District surveys

RCH phase –II Strategies- Essential obstetric care(Institutional delivery and skilled
 attendance at delivery), Emergency obstetric care(Minimum services to be provided by a fully
 functional FRU) , Strengthening referral system (New Initiatives – Janani Suraksha Yojana,
 Vandemataram scheme, Safe abortion services)

Indicators to monitor and evaluate RCH programme.

V. Integrated Disease Surveillance Project. – Aims – Classification of surveillance in IDSP –
 Clinical syndromes under surveillance of IDSP – Symptoms under regular surveillance in
 IDSP.

VI. National Vector Borne disease control Programme

1. vector - definition-Examples of vector borne diseases.

Aims of NVBDCP -functions of Directorate of NVBDCP- Integrated vector
 management.

2. National Anti – Malaria Programme - Malaria control programme 1953 – NMEP
 1958 modified plan of operation –API - strategies for control of malaria in areas
 with API more than 2 and API less than 2 – Drug distribution centre and urban
 malaria scheme . Fever Treatment depots –P.falciparum containment – Malaria
 Action plan 1995

Anti – Malaria Programme 1999 - strategies for prevention & control of malaria-
 intensified/Enhanced Malaria control Project Anti – malaria month campaign

3. National Flaria control programme 1955

Main activities of NFCP – Revised Filaria control strategy – MDA programme and
 its relevance

4. Kala –Azar control programme– causative factors –endemic areas -Strategies for
 Kala – Azar elimination

5. Japanese encephalitis control programme -familiarize the vector ,reservoir and
 risk factors of JE , symptoms and treatment - strategies for prevention & control

6. Dengue fever control programme

causative vector, familiarize symptoms and treatment - strategies for prevention &
 control of Dengue fever.

VII. National leprosy eradication Programme – familiarize leprosy - strategies of NLEP
Decentralisation , Integration of leprosy services with general health care system,
Leprosy training, Early diagnosis and prompt treatment-MDT, IEC for reduction of
stigma and discrimination, Prevention of disability and medical rehabilitation,
Monitoring and periodic evaluation, Inter-sectoral collaboration, Monitoring and
Evaluation
Rehabilitation- Community based rehabilitation-Components

VIII.Revised National Tuberculosis control programme – strategies – Stop TB strategy-Goal,
Objectives and Components-diagnosis of TB in RNTCP –DOTS-MDR TB- DOTS PLUS- TB-
HIV Co-ordination.

IX.National AIDS Control programme.
NACO – aims - strategies – aims of NACP (I) (II)and (III)– NACP III strategies – programme
priorities – Integrated counseling & Testing centres (ICTCs) Convergence with RCH, TB and
other MOHFW Programmes, STD services, Condom supply, Access to safe blood , Prevention
of parent to child transmission- PPTCT, STD control programme – Blood safety programme –
condom programming – care and support – Treatment – Anti-Retroviral therapy-National
Paediatric AIDS initiative – IEC and social mobilization

Prevention strategies- Targeted / Preventive interventions

-among High Risk Groups,
Differential strategies among HRGs(CSW),
MSM and Trans-Gender (TG)

-among Bridge populations
Truckers and Transport Sector groups

Programme targets-Public- private partnership

Currently added new components to the programme.

X.National Programme on Control of blindness – Aims – Strategies – school eye screening
programme – Aims – vision 2020 - The Right to sight - Eye donation - Eye donation fortnight-

XI.National programme on Iodine Deficiency Disorders (IDD) control programme - Iodine
Deficiency Disorders - Essential components of the programme – strategies.

XII.National cancer control programme – common cancers – causes- Objectives of the
programme- National cancer awareness Day – world no Tobacco day – Tobacco control
legislation provisions.

XII.National Mental Health Programme.

Aim of launching the program – Objectives- intervention of national Human rights commission
in mental hospitals

Familiarize National Guinea worm Eradication Programme and Yaws Eradication Programme

Core reading

1.Park,K. Park's Textbook of Preventive and Social Medicine- 20th Edition

2 K.Park;Essentials of Community Health Nursing-Latest Edition

3. <http://mohfw.nic.in/NRHM.htm>

4. <http://nlep.nic.in/rehab.htm>

Further reading

1. A Hand Book for ASHA by Arogya keralam
2. A guide to malaria and its control : Regional Office of H&FW, GOI, Bangalore
3. Module for Health Workers published on RCH programme by National Institute of Health & Family Welfare

NATIONAL HEALTH POLICY

1. Introduction
History-Declaration of Alma Ata-Health for all by 2000 A.D- Health indicators as envisaged to be achieved by 2000 A.D.-Currently available Health Indicators
2. Millennium development goals, eight goals, health related goals
3. Health Policy- National health policy 2002- goals to be achieved by 2015 A.D .

Core reading

1. Park,K.Essentials of Community Health Nursing- Latest Edition

Further reading

1. Park,K. Park's Textbook of Preventive and Social Medicine- 20th Edition

Exercise

- 1.Demonstration and identification of vectors during observation visit/field placement. Mapping of breeding places
2. Charts of various vectors , their breeding places and diseases caused by them
- 3.Write down how will you educate the community on 'the conduct of dry day observance'
- 4.Write down the advantages of conducting cleaning campaign in your institution
- 5.Write down a report of state / district level observance of Anti- malaria/ TB/AIDS Prevention/ Blood Donors' day
- 6.Learn -malarial parasite and microfilaria under the microscope
- methods of smear collection, DOTS kit and Slides during observation visit/field placement.
- 7.Make a chart containing Name, causative agent, method of transmission, symptoms, control and prevention of vector borne / Air borne/ Water borne diseases.
8. Practice role play of orientation training camp for NGOs on prevention of diseases during rainy season
- 9.Collection and discussion of pamphlets related to national health programmes.
- 10.Attending meetings national observance days related to national health programmes and report preparation.
- 11.Preparation and submission of bonafide records which should contain at least five major national health programmes.
- 12.Compare currently available national health indicators in India and Kerala
- 13.Collect health indicators of the PHC/Block area of field work

Topics for Record

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

- 1.A report of various vectors and diseases caused by them.
- 2.Write down how will you educate the community on 'the conduct of dry day observance'

3. Write down a report of state / district level observance of Anti- malaria/
TB/AIDS Prevention/ Blood Donors' day
4. Prevention of diseases during rainy season
5. Make a chart containing Name, causative agent, method of transmission, symptoms,
control and prevention of vector borne / Air borne/ Water borne diseases.
6. National Rural Health Mission
7. NVBDCP
8. Revised National Tuberculosis control programme
9. National AIDS Control programme.
10. National health policy 2002- goals to be achieved by 2015 A.D.

PAPER-V

PUBLIC HEALTH, PRIMARY HEALTH CARE, JOB RESPONSIBILITIES OF JHI'S, MAINTENANCE OF RECORDS AND REPORTS , FAMILY WELFARE, POPULATION EDUCATION, HEALTH STATISTICS

Topics	Hours of Teaching	Marks			
		Theory	Viva voce	Record	Internal Assessment
Family Welfare	48	30			
Job Responsibilities	32	20			
Public Health	24	15			
Primary Health Care	24	15			
Records and Reports	16	10			
Population Education & Health Statistics	16	10			
Total	160	100	25	15	10
Total Marks		150			

FAMILY WELFARE:

Concept of family welfare, importance of family planning and welfare, health and socio-economic factors, mortality rates of vulnerable groups.

Human reproduction and population dynamics, physiology of contraception. Aspects of family health and welfare services-

Maternal health, child health services, family health care, school health services.

Marriage guidance, pre-marital education,

Home economics and nutrition,
 Spacing of births, limiting births,
 Treatment of infertility .
 National health programme-overview
 Organizational set up of family welfare services at central, state, district, PHC and Sub centre levels.
 Role of health workers-male, role of other members of health team, coordinating efforts to provide effective services. Role of voluntary organizations in providing FW services.
 Evolution of family welfare programmes in india.-FP,FW,MCH,CSSM,RCH,RCH-II(NRHM)-overview.
 Reports relating to family welfare programmes in India-overview.
 Organization of family work.
 Surveying the community for eligible couples, case findings , techniques of reaching the community, working through local organizations and community leaders.
 Promoting the small family norm, health benefits of small family, helping people to accept and adopt family planning methods , imparting family planning facts, dealing with misconceptions.
 Communicating with individual and groups. Face to face communication, mass media approach, conducting group discussions, holding meetings, individual counseling in the home, clinic, health centre or motivating eligible couples in the hospitals , family planning facts, promoting trust and confidence, providing services .
 Planning and organizing family planning services.
 Home clinic, community, vasectomy clinics, vasectomy camps.
 Distribution system for conventional contraceptives.
 Records and reports related with family welfare.
 Family planning campaigns,
Family planning methods
 Contraception , temporary and permanent methods, their advantages and disadvantages.
 Male contraception and male participation in contraception
 Natural, chemical, mechanical, surgical, hormonal methods, rhythm method, foam tablets, intra uterine devices, oral contraceptives, sterilization, medical termination of pregnancy,
 recanalisation (male and female).

JOB RESPONSIBILITIES OF PRIMARY HEALTH CARE WORKFORCE WITH EMPHASIS ON THE MULTI PURPOSE HEALTH WORKER – MALE-(GO-P-254/2003 H&FWD Dated 09.12.2003)

- 1.Introduction-Sub Centre, Day Block,
- 2.Field visit: Area, visit, reporting, Supervision
- 3.Maintenance of Family and Village Records: family and village survey, family and Village records
- 4.Implementation of national health programmes:
 - i. Role of JHI in –National Malaria Eradication Programme, Revised National Tuberculosis Control Programme, National Leprosy Eradication Programme, Other health programmes and activities,
4. Role of JHI in - RCH/NRHM services

5. Environmental Sanitation-sanitary well, well chlorination, soakage pit, sanitary latrine,
home sanitation, waste disposal,
6. Control of communicable diseases-
Preventive measures of airborne, waterborne, and contagious diseases and reporting system
7. Health and Family Education-
8. Nutritional services
9. Role of JHI in Immunization
10. Role of JHI in curative services
11. Collection of details of vital events
12. School health
13. Medical Termination of Pregnancy
14. Public health responsibilities- inspection of dangerous and offensive trades
15. Staff meeting and conferences
16. Services to the elderly challenged and mentally ill
17. Services for prevention of RTI/STI and HIV/AIDS
18. Maintenance of records and reports

Public health

Concept, definition, scope of public health activities, difference between public health and curative medicine, overview of magnitude of public health problems in kerala and comparison with the national and global situations, overview of the development of health services and overview of various important committee reports like bhore committee, mudaliar committee, and kharthar singh committee. Cooperation and coordination with members of health team, social welfare team , village community development team.

Organization and structure of health services – at national , state and district levels.

Primary health centre/ sub centre – concept, definition, organization and functions.

Role of PHCs and sub centres in the health care delivery system.

Organization of public health set up in the urban area.- corporations , municipalities , and townships. –and duties of various health personnels in the set up.

Public health programmes – progress of health activities under developmental programmes .-health planning and programme – five year plans, health subsectors in five year plans, implementation of health plans at various levels.

International agencies – overview – world health organization , UNICEF, UNFPA.

NGOs-

Social welfare services- ICDS

Other systems of medicines –AYUSH – overview of their role.

Inter sectoral coordination

Primary Health Care

1. Definition, Elements, Principle
2. Health system in India-
At the centre, Union ministry of Health and Family Welfare, organization and functions- Directorate General of Health Services, Organization and functions- Central Council of Health- Organization and functions
At the state level-State health administration-State Ministry of Health, State Health Directorate,

- At the District level-Sub divisions, Taluks, Community development blocks, Municipalities and corporations, Villages and Panchayats
3. Changing concepts- Comprehensive primary health care, Basic Health Services
 4. Role of JHI in Primary health care

Maintenance of records & reports

- i. **Various types of Registers maintained by JHIs.**
- ii. **Other Records**
 - i) Area map
 - ii) Progress charts of various activities and achievements
 - iii) seasonality diagram
 - iv) Abstract of various reports
- iii. **Reports**
 - i) Definition
 - ii) Preparation of advance tour programme and tour diary cum work statement
 - iii) Various types of monthly report
 - iv) Communicable disease reports (Daily, weekly, fortnightly, etc)

Population Education & Health Statistics

POPULATION EDUCATION (10 Hours)

1. Definition- Population Education, Demography
Demographic trends in India, Age composition, Sex ratio, Dependency ratio, Density of population, Family size, Urbanization, Literacy, Life expectancy, Fertility, Demographic cycle, Causes of population explosion- Decreased death rate and increased life expectancy, Scientific advancements, Increasing treatment facilities, Universality of marriage, Low Age At Marriage, Cultural beliefs, Superstitions, Joint family system, Pre-dominance of agriculture, Pre-dominance of villages, Poverty, Illiteracy, Immigration Consequences of population explosion- social, economic, developmental, health and environmental - decreasing natural resources, emission of green house gases, ozone layer depletion, alteration in ecosystem, climate change, noise - air- water and soil pollution.
2. Theories on population- Optimum population theory, Principles/Theories of population by Malthus, Karl Marx, Demographic Transition Theory- Pre transition, Transition and Post Transition stages, Demographic transition in India
3. National Population Policy

HEALTH STATISTICS (6 Hours)

Definition- Statistics, Vital statistics, Health Statistics, Uses of Vital and Health Statistics, Census, Registration of Births and Deaths, The Central Birth and Death Registration Act 1969, Notification of diseases, Records available in hospitals and health centres, Health surveys, vital statistical rates and indices- birth rate, death rate, specific death rate, infant mortality rate, neonatal mortality rate, perinatal mortality rate, under five mortality rate, maternal mortality rate, expectation of life, general fertility rate.

RECOMMENDED BOOKS:

Core Reading:

- I. Public Health K.PARK -Essentials of Community Health Nursing (Latest Edition)-
- II. Primary Health Care

III. Family Welfare

Further Reading:

1. K.PARK
Park's Text book of Preventive and Social Medicine
2. Piyush Guptha and O.P. Ghai-
Textbook of Preventive and Social Medicine-
CBS Publishers& Distributors

IV. Job Responsibilities of JHI's & Maintenance of Records and Reports

Core Reading:

1. Order issued by the Govt. of Kerala
(GO-P-254/2003 H&FWD Dated 09.12.2003)
& GO(P) No 132/204/H&FWD Dated 23.05.2004
- 2.A Textbook for the Health Worker(ANM)- A.M.
Chalkley- Volume I

Further Reading:

RCH Module for Health Worker Male &Female
Issued by National Institute of Health & Family
Welfare

V. Population Education

Core Reading:

1. K.Park, Latest Edition -Essentials of Community Health Nursing
2. A.M. Chalkley- Volume I,A Textbook for the Health Worker(ANM)
3. A.M. Chalkley- Volume II,A Textbook for the Health Worker(ANM)
4. Principles of Population Studies-Dr.(Mrs.)Asha. A. Bhande & Prof.(Mrs.)Tara Kanitkar
- 5.Demographic transition, An Ansient Perspective- edited by Rajive Balakrishnan, 2011 in association with Council for Social Development, New Delhi.

Further reading

1. K.Park, 20th Edition ,Park's Textbook of Preventive and Social Medicine
2. From Population Control to Reproductive Health-Mohan Rao,2004,Sage Publication, New Delhi
- 3.Population Policy of India-Implementation Strategies at National and State Levels- edited By Badri. N. Saxena, 2004,Sterling Publishers Pvt. Ltd.

VI. Health Statistics

Reference

- 1.Park's Textbook of Preventive and Social Medicine-K.Park, 20th Edition
- 2.Essentials of Community Health Nursing-K.Park,Latest Edition
- 3.A Textbook for the Health Worker(ANM)- A.M. Chalkley- Volume I
- 4.A Textbook for the Health Worker(ANM)- A.M. Chalkley- Volume II

Exercise

1. Render family planning services to the community as per the felt need
2. Role play on family planning services
3. Prepare an action plan for a sub centre area related with family planning
4. Conduct inspection in dangerous and offensive trades- hotel/bakery/market/theatre etc.
5. Attend monthly staff meeting at PHC/CHC
6. Home visit at sub centre area
7. Learn the job responsibilities of a JHI in the field with regard to primary health care aspects of various National Health Programmes
8. List out the job responsibilities of a JHI in the field with regard to primary health care aspects of various National Health Programmes
9. Participatory Learning for Action i) Resource mapping
ii) Preparation of seasonality diagram
iii) Spot mapping of communicable disease affected area.
10. Population control measures in the block placement area
11. Collect various health indicators in the field work area/ PHC where student is on block placement
12. Various health indicators in India and Kerala

TOPICS FOR RECORD:

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

Family Welfare:

1. Family Planning methods- Temporary
2. Family Planning methods- Permanent-Female
3. Family planning methods-Permanent-Male

Job Responsibilities of JHI's:

1. Job Responsibilities of Jr. Health Inspector -(MPHW-Male)
overview
2. Role of a JHI in Communicable Disease prevention

Public Health & Primary Health Care:

1. Functions of a Primary Health Centre (PHC)
2. Functions of a Sub Centre (FWC)
3. Principles and Elements of Primary Health Care

Maintenance of Records & Reports:

1. Records & Reports maintained by JHI's

Population Education & Health Statistics:

1. Population education &
And its relevance in promoting
community health

Students need to be given an orientation of all current developments of public health importance in each subject in order to facilitate them to carry out job functions of a Junior Health Inspector.

SECOND DHI COURSE

PAPER I

Environmental Sanitation	-	60%
Public Health Problems	-	40 %

PAPER II

Communication	-	50%
Health Education	-	50%

PAPER III

Fundamentals of Management	-	50%
Public Health Act	-	30%
Local Self Government	-	10%
Project Preparation	-	10%

PAPER IV

Behavioural Science	- Sociology	-	50%
	- Psychology	-	40%
	-Mental Health	-	10%

PAPER V

Non-Communicable Diseases	-	50%
Biomedical Waste Management	-	20%
Palliative Care	-	20%
Geriatric Health	-	10%

PAPER-I

Environmental Sanitation & Public health problems

Topics	Hours of teaching	Marks			
		Theory	Viva	Record	Internal Assessment
Environmental Sanitation	96	60	25	15	10
Public health problems	64	40			
Total	160	100	25	15	10
Total Marks	150				

Environmental sanitation

Definition and scope of environmental sanitation

Water

Importance of water, Sources of water, Sources of water supply, wells and types of wells

Protection of water supply, requirements of an ideal well (sanitary well)

Examination of water, detection of the sources of pollution of a well, purification of water.

Natural: ponding or storage, oxidation and settlement, artificial.

Artificial:

Physical : distillation, boiling,

Chemical: precipitation, disinfection or sterilization

Filtration: slow sand filtration, rapid sand filtration, domestic filters

Filtration of water on a large scale: slow sand filtration, rapid sand filtration

Classification of different types of water

Safe water, polluted water, contaminated water, impurities of water

Classification of impurities:

Types of hardness-consequences- removal

Disinfection of water on a large scale

Chlorine and its derivatives, chlorination,

Ozonation, Ultra violet rays, Reverse osmosis, etc

Purification of water on a small scale

Household purification of water

Boiling,

chemical disinfection

Bleaching powder, chlorine tablet, chlorine solution, high test hypochlorite, iodine, potassium permanganate

Filtration

Disinfection of wells

Double pot method

Examination of water-Water sampling

Collection of water for physical, chemical and bacteriological examination

AIR

Introduction, composition, air velocity, air occupied rooms, discomfort, sources, pollutants, indicators of air pollution, health effects of air pollution, prevention and control.

VENTILATION

Introduction,

Standards of ventilation: natural ventilation, mechanical ventilation

LIGHTING

Requirements of good lighting, measurements of light, natural lighting, measurement of day light, artificial lighting, method of artificial illumination, lighting standards, biological effects of light

NOISE

Introduction, sources, properties, effects of noise exposure, noise control

RADIATION

Sources of radiation exposure, types of radiation, radiation units, biologic effects of radiation, radiation protection.

Meteorological Environment

Introduction, atmospheric pressure, measurement, effects of atmospheric pressure on health, air temperature, measurement

HUMIDITY

Introduction, measurement.

AIR VELOCITY

Introduction.

HOUSING

General principles of healthful housing, criteria for healthful housing, housing standards, rural housing, housing and health (respiratory infection, skin infection, rat infestation, arthropods, accidents, morbidity and mortality Psychosocial effects)

Overcrowding

Person per room, floor space,

Disposal of wastes

Solid waste

Definition, consequences, types of waste, storage, collection and disposal.

Excreta disposal

Health hazards of improper disposal of human excreta

Methods of excreta disposal

Methods of excreta disposal in unsewered areas-service type latrines, Sanitary latrines, latrines for temporary camps

Methods of excreta disposal in sewerred areas- water carriage system and sewage treatment.

Disposal of liquid waste

Public health importance of waste water and sullage.

Various methods of disposal of disposal of liquid waste, construction of soakage pits and kitchen gardening.

Disposal of dead

Public health aspects of various methods of disposal of dead bodies, selection of site of cremation or burial, disposal of carcasses. Methods adopted for disposal of dead bodies of persons who die of infectious diseases like small pox/ HIV/AIDS etc.

Control of insects, rodents and stray dogs.

Public health importance and their control.

Sanitation of places of public gatherings

Diseases likely to spread in places of public gatherings.

Sanitary measures to be taken in fairs and festivals, markets, worship places, and other places of public gatherings.

PUBLIC HEALTH PROBLEMS:

Communicable disease problems :

Malaria, tuberculosis, diarrhoeal diseases, acute respiratory infection, leprosy, filaria, STD, AIDS, others.

Nutritional problems ;

Low birth weight, protein-energy malnutrition (early detection, screening, preventive measures), xerophthalmia, nutritional anaemia, iodine deficiency disorders, endemic flurosis, lathyrisim.

Environmental sanitation problems

Medical care problems

Population problems

Recommented Texts

Environmental Sanitation &

Public health problems :

Core Reading: K. PARK-Essentials of community health nursing

- Banarsidas Bhanot

Further Reading : K.PARK- Park's Text Book of Peventive and Social Medicine- - Banarsidas Bhanot

Exercise:

1.Well chlorination

2. Water sampling

3.Construction of manure pit

4. Health workers role in prevention and control of health problems

5. Collection of relevant data relating to emerging and reemerging health problems

TOPICS FOR RECORD

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

Environmental Sanitation:

1. Water purification on a large scale
2. Water purification on a small scale
3. Solid waste disposal
4. Excreta disposal
5. Sewage purification
6. Housing
7. Air pollution

Public Health Problems:

8. Major Public Health Problems in India
9. Major communicable disease problems
10. Major nutritional problems

PAPER-II COMMUNICATION & HEALTH EDUCATION

Sl. No.	Item	Marks	Hours of teaching	Other details
1	Communication Theory & Exercise	50	80	Theory: 100 marks Viva-voce: 50 marks Record: 15 Oral : 25 Internal Assessment: 10 marks TOTAL: 150 MARKS
2	Health Education Theory & Exercise	50	80	
Total No. of Hrs.			160	

COMMUNICATION

1. Communication- Introduction and Goals

- i. Define - Communication, Information-Education and Communication (IEC), Behaviour Change Communication (BCC) - Strategic Communication - Difference between IEC and BCC- BCC creates enabling environment through identifying barriers and carries out communication activities to overcome them
- ii. Goal-desirable change in behaviour-cognitive/ knowledge, affective/attitude, psychomotor/practice. Functions-informs, persuades, motivates, educates, entertains, build-up public opinion, create favourable climate, behavioural change, advocacy

2.. Elements and factors of communication

- i. Sender, message, receiver, channels of communication and feed back -
Communication process
- ii. Channels of communication- Traditional channel-Folk media –story telling, play acting, song with message, puppet show, street play etc.– Significance of folk media in bringing behavioural change among rural community
Modern channels-News paper, magazine, posters, radio, television, films, slide shows, tape recorder, over head projector, phone, computer and internet.
- iii. Feed back- importance-advantages- check list
- iv . Factors influencing communication- factors related to each of the elements - Barriers to communication- Physiological, Psychological, Environmental and Cultural- Noise, Distortion,Misinterpretation

3. Types of communication -

- i. verbal /word of mouth /traditional way of communication and non- verbal –facial expression-eye movement, gestures, movement of head and hands,poster, body movement etc.
Formal and informal, one way/didactic and two- way/socratic, Inter personal/face-to-Face and mass communication- importance of IPC- communication with individual or a couple- small group , Visual communication-charts, graphs, pictograms, tables, maps, posters , Telecommunication and Internet.
- ii. Strategic communication- Familiarize elements viz.result oriented, multi-channeled, science based, technically qualitative, client centred, participatory, advocacy related, benefit oriented, programmatically sustainable, service linked and cost effective.
- iii. Health communication-Functions of health communication
- iv. Communication pattern in groups- wheel pattern, chain pattern, all-channel pattern

4. Motivation in communication

Definition of motivation, Types of motivation-identification, compliance , internalization-
Motivating a community for desirable change

5. Communication skills

- i. Basic skills for communication-human relation skills –IPC skills-Non-verbal communication, Effective speaking- how to become an effective speaker- why, what, whom and when components, Active listening- advantages-how to become an active listener- writing and drawing skills
Appreciation,Recognition,Approval, Acceptance and Understanding.
- ii. Interviewing skills- definition of interview – interviewing techniques
- iii. Counselling skills –definition of counseling -role of health worker as a counsellor-situations for counseling-techniques of counseling-steps of counselling-counselling skills- Do's and Don'ts of counseling-Styles/approaches in counseling-counsellor centred/authoritarian, client centred/ non-directive, non-authoritarian styles. GATHER technique in counseling

6. Rumors and misconceptions
Diagnosing Rumors and misconceptions-ways of removing Rumors and misconceptions using IPC skills
7. Effective community partnership
Developing partners with community-identifying partners- types of groups- methods to involve community partners-Participatory Learning for Action-Chappathi diagrams, relative ranking, fish bowl technique, seasonality diagram, village walk- skills for developing good partnerships-KAP assessment through focus group discussion, group meetings, relative ranking, seasonality diagram and IPC.
8. Communication for health work
Talks, broad casts, role play, group discussions, demonstrations, puppet shows, plays
9. Team work
Team work- Definition, Communication within health team
10. Evaluating effects of communication
Feed back and follow-up-simple evaluation tools- check list-health survey and health records – evaluation of social process skills- informal evaluation techniques
11. Public Relations
Definition, Objective- to attract attention, win belief, impart understanding; Qualities of a public relations officer- good judgment, organizing ability, withstanding stress, commonsense, objectivity, appreciation skill, sense of humor, flexibility, ability to make friends

Note: The students may be familiarized with essentials of basic computer applications

Health Education

1. Health Education
 - i. Introduction
HFA, Primary health care, Education an element of primary health care, Definition of Health Education - Changing concepts- WHO Definition of Health Promotion – enabling people to increase control over their health and its determinants and thereby improve health- Role of health workers in health education
 - ii. Aims
 - Aims of Health Education laid down by WHO- Health Education and Health Propaganda
 - Approaches to Public Health-Regulatory, Service, Health Education and Primary Health Care approach–Health Education/ Health Communication Approaches-

Individual, Group and Mass approaches

iii. Adoption process

Awareness, Motivation, Interest, Evaluation, Decision making; Action-adoption/rejection;
Familiarize Adopter categories-Innovators, Early adopters, Early majority, Late majority and Laggards

iv. Areas of Health Education

v. Principles of Health Education

Principle of Interest, participation, motivation, comprehension, reinforcement, learning by doing, known to unknown, good human relations, feedback, leadership

2. Training

Definition – Training, Training need assessment-Familiarize Types of training-Pre-service training, In-service training-Induction/Orientation training, On- the job training, Refresher training, Career development training – Capacity building training, Curriculum- Definition, contents- The teaching-learning process, concept of learning, desirable change in behaviour, characteristics of learners among rural and urban people, adults and children, evaluating learning, principles of teaching, micro teaching, lesson plan

3. Methods of health communication/teaching

- i. Individual methods-Dialogue, Demonstration, Personal contact, Home visit, Personal letters
- ii. Group methods- Lecture, Demonstration, Talk, Debate, Field Trip, Observation, Simulated learning experience, Puppet show, Project, Drama, Songs, Dance, Music, Story telling, Learning exercise, games, Discussion methods such as Group discussion, Panel discussion, Symposium, Work shop, Conference, Seminar, Role play, Campaign
- iii. Mass methods- Telecast, Broadcast, Exhibition, Newspaper, Printed material, Direct mailing, Posters, Health museums, Folk methods, Internet, Campaign

4. Audio-Visual aids

- i. Definition-Advantages to learners and teachers, limitations, selection of AV aids, Effective use of AV aids
- ii. Classification-(a)Graphic aids, Three- Dimensional aids, Activity aids and Projected aids (b) Auditory, Visual and Combined aids
- iii. Preparation and use of low cost AV aids
Flash card, Flip book, Flip chart, Display board, Bulletin board, Flannel graph/ Khadi graph, Charts, Pamphlets/ Leaflets, Black/ white board, Models, Puppets and Power point presentation

5. Planning Health Education activities
 - i. Diagnosis of health education needs
 - ii. Identifying community resources and limitations of resources
 - iii. The process of planning health education-
Objective setting, selecting content, selection of method, approach and communication aids, developing plan of operation, evaluation, follow-up activities
 - iv. Implementation
 - v. Evaluation and Follow-up

6. Community resources and organization for health education
 - i. Organizing campaigns on felt problems of the community and World Health Day message
 - ii. Leadership, facilities and talents in the community.

Core reading

1. Park,K. Essentials of Community Health Nursing -Latest Edition.
2. Chalkley, A.M.A Textbook for the Health Worker (ANM)- Volume I
3. Chalkley, A.M. A Textbook for the Health Worker (ANM)- Volume II
4. N.R. Swarup Saxena, Dr.S.C.Oberoi.Technology of Teaching

Further reading

1. Park,K. Park's Textbook of Preventive and Social Medicine -20th Edition
2. Park,K. Essentials of Community Health Nursing-Latest Edition
3. Ministry of Health and Family Welfare, Govt. of India;RCH Module for Health Worker (Male)
4. Ministry of Health and Family Welfare, Govt. of India;RCH Module for Medical Officer (Male)
5. Supe,S.V.An Introduction to Extension Education, 9th Edition,Oxford and IBH Publishing Co.Pvt.Ltd.

Exercise

1. Verbal and non-verbal skills-two or three students present topics of 5 minutes duration in the class room. Others listen to it and discusses on verbal and non- verbal communication and how it could be improved upon.
2. Listening- two or three small groups with two students each carry out conversation of 5 minutes duration in the class room. Others listen to it and discusses on 'Listening' and how it could be improved upon.
3. Students carry out a Communication method on any identified problem in the community during field work and understands communication process
4. Prepare a message of duration for five minutes for broadcast
5. Role play-Students enact role play. Teacher facilitates discussion at the end.
6. Exercises on One way and Two way communication. Identify the advantages and disadvantages of each.
7. Practice any two methods to develop partnership with the community
8. Learn more about Health promotion- International conference on Health Promotion, five priorities for health promotion in 21st century- Familiarize with Health Promotion Emblem
9. Prepare at least two types of AV aids on any topic and submit the same for viva-voce examination
10. Micro teaching

11. Preparation of a lesson plan for taking a class of duration of 20 minutes and making presentation with audio- visual aids prepared
12. Collecting messages of different days of national health days- world health day, world population day, world environment day, world TB Day, World blood donors' day etc.
13. Familiarize formal, informal and non-formal education

Topics for Record writing

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

1. Verbal and non-verbal skills
2. Communication, IEC, BCC, Strategic Communication
3. A message of duration for five minutes for broadcast in Malayalam language
4. Health communication and its functions
5. Describe any two methods to develop partnership with the community
6. Concept of Health promotion, five priorities for health promotion in 21st century and Health promotion emblem
7. Preparation of any two health education aids
8. A lesson plan for taking a class of duration of 20 minutes
9. Collect messages of different days of national health days- world health day, world population day, world environment day, world TB Day, World blood donors' day etc.
10. Micro teaching

Paper III

Fundamentals of Management , Public Health Act ,Local Self Government & Project Preparation

Sl. No.	Item	Marks	Hours of teaching	Other details
1.	Fundamentals of Management	50	80 hrs	Theory:100 marks Viva-voce:50 marks Record:15 marks Oral:25 marks Internal Assessment:10 marks
2	Public Health Act	30	48 hrs	
3	Local Self Government	10	16 hrs	
4	Project Preparation	10	16 hrs	
Total No. of Hrs.			160	Total : 150 marks

Fundamentals of Management

1. Management – Definitions

- Resources of Management – 3ms of management Description
- Feature of Management
- Management as an art – Management as Science
- Functions of Management (detailed study)
- Management functions of Health worker
- Principles of Management – Definitions- Description.
- Levels of Management
- Managing Resources Managing men –
- Personnel Management – Definitions.- Steps of Personnel management – description of each step (5 hrs)
- Material Management in Health services – Definition -Aims -Steps - Points to remembered while storing drugs- managing equipments - Formats for storage/Issuance of materials- Inventory – definitions
- Money Management – Definition- Visible money – invisible money – petty cash – points to be remembered while handling got money- cash voucher- cash receipt – petty cash book

2. Time management – Definition

Need for time management - Principles of time management - Tips on effective time management.

Monitoring and evaluation - Definitions - Monitoring and evaluation as control measures - Differentiation.

- Team Work - Definitions Team, Team Work - Merits of team work - Features of a Team - health Team – Definitions - Team leader – Definition - Qualities of a Team Leader.
- Leadership - Definitions leader - Leadership Types - Authoritarian – Participative – laissez faire – description – distraction – relevance – merits – demerits. Qualities of a leader.

Recommended books

1. On being in charge” a guide for middle level management in primary health care WHO publication
2. RCH Training module for Health worker (M)
3. Principles of management’ by Pradeep Kumar
4. Management & organization by C.B,Gupta
5. Essentials of management by Harol Koontz, Cyril O dennoll Heinz wiehrich.

Public Health Act

Public Health Law- Central and state - Public Health Rules and bye-laws
 History of PH Legislations in India and development of present PH Laws in Kerala
 Introduction to Travancore- Cochin Public Health Act and Madras PH Act
 Controlling authorities and their powers
 Role of Health Inspectors/Health Officers
 Mission of PH system
 a.Public health
 b.Nuisance
 c.Control measures of Notifiable diseases

Important provisions-1.Sanitary conveniences 2.Abatement of nuisance 3.Prevention, Notification of Notifiable diseases 4.Food control
Establishment inspection

-Pre-inspection activities, purpose of inspection(evaluation of facilities or any operation under investigation or evidence for regulating actions), understanding the subject and purpose of inspection, quantity of raw materials, visit to manufacturing plant, a preliminary tour, Flow chart of organization, environmental conditions, material of construction, raw material, additives, packaging and labeling, storage conditions, inprocess control, sanitary conditions, use of insecticides and rodenticides, standards.

Inspection of-meat, fish, egg and meat stall, market etc.

Chief signs of illness in animals.

Characteristics of good meat

Characteristics of fresh fish

Claims of milk as a complete food and milk borne diseases

Pasteurization of milk

Characteristics of an outbreak of milk borne epidemic

Construction of slaughter house

Inspection of slaughter house, Slaughter house maintenance

Sanitary requirements that may be suggested for issuing a license to an eating house, Meat stall, Milk stall, backing investigation of an outbreak of notifiable diseases

Fairs and Festivals-Notification, Sanitary arrangements, Supervision

Hospital Sanitation- House keeping committees, Composition, Functioning, Role of JHIs

School Sanitation and institutional sanitation

Industrial sanitation, Industrial hygiene, Safety in work places

Refuse collection in disposal in places of public health importance like cinema houses, barber shops, laundries, swimming pools etc.

Case studies and judicial pronouncements, preparation of notice, spot mahazer, charge sheet action against violations of provisions of PH act. Testimony of witnesses, summons, cross examination of witnesses, arguments, law points, launching of appeals, relevant provisions of Indian Penal Code, Evidence Act, Criminal Procedural Code, Probation of Offenders' Act, Limitation Act etc.

Dangerous and Offensive Trade License and its conditions, Power of Panchayat Secretary in relation with Public health issues

Other legislations

Provisions, Legal rights of various authorities in

1. Consumer protection Act
2. Birth and Death Act
3. Cinema Regulation Act
 - i. Bureau of Indian Standards Act
 - ii. Agricultural Marketing Act and Rule
 - iii. Meat Products Order
 - iv. Fruits Products Order
 - v. Drugs and Cosmetics Order

Recommended books

1. Public Health Act and allied Acts

2.G.O.(Ms.) No. 103/2008/H& FWD. Dtd.Tvpm.8th April 2008 from H& FW Dept.

LSG Institutions

Overview of Panchayathraj Act, Rules and Municipal Act and Rules.

Introduction to panchayath raj act.

Administration of panchayath –powers, functions and responsibilities of panchayath. Power of government to transfer and utilize service of any govt. servant to panchayath composition of ward sabha, standing committee, joint committee, management of public health institutions (PHC ,govt./Pvt. Hospitals, Dispensary) powers of LSGD to issue directions to those transferable staff / Public Health Staff provisions / Management of garbage, solid waste, liquid waste. Action against those who violate provisions of waste disposal public market and licensing provisions.

Decentralised administration in kerala – overview. Transfer of health services institutions under the LSGIs

Role of LSGIs in the administration and management of health services institutions transferred under them – sub centres, PHCs, CHCs in the changed scenario.

Bottom –up planning ,project preparation , implementation, monitoring and evaluation.

Public health activities in the changed scenario, both rural and urban areas.

Inter sectoral coordination , and its importance in health – Social welfare, Education, other departments

SHGs – kudumbasree, voluntary workers like ASHA/MSS

PREPARATION OF PROJECT

1. Project- Definition, Significance, Purpose
2. Stages of a project- project goals and objectives, project context, personnel, work plan, budget, project output
3. Preparation of project report
 - i. Title page
 - ii. Introduction
 - iii. Executive summary
 - iv. Goals and objectives
 - v. Team organizational structure
 - vi. Work plan
 - vii. Project time line
 - viii. Budget
 - ix. Appendix
4. Preparation of project for the following topics
 - i. Total immunization of all under - five children in a PHC
 - ii. IEC/BCC on mass drug administration against Lymphatic filariasis in a PHC
 - iii. Planning and implementation of Pulse Polio Immunization in a PHC.

iv. Vector control activities in a Gram Panchayat area

Core Reading

1. The notes prepared by PHTS, Tvpm. based on
 - i. Guide lines for Public Private Partnership for Malaria Control, Directorate of NVBDCP, GOI
 - ii. Project Format framework in Eleventh Five Year Plan

Exercise

1. Observing drugs & equipments in a primary health centre during field visit and submission of report.
2. Preparation of inspection reports, Mahzers etc. based on the details presented about fictitious situations of public health importance and having implications with Public Health Legislations Eg. Dispute regarding construction of a latrine near a drinking water source, dispute regarding the opening of a slaughter house, dispute regarding noise pollution caused by a crusher in a quarry etc.
3. Prepare a project on the unmet felt needs in the PHC area, which needs to be urgently solved in the block placement area .
4. Brief the projects submitted by the PHC/CHC (block placement) to the Secretary, block panchayat..
5. Detail the method of data collection you adopted in the field
6. Prepare an action plan for various educational activities on the identified problem in the block placement area

Topics for Record

Prepare of submit a bonafied record which should contain 10 topics preferably those listed below.

1. Functions of Management
2. Principles of Management
3. Material Management in Health services
4. Time Management
5. Types of leadership – merits – demerits.
6. Significance of Public Health Act
7. Role of Health Inspectors for executing PH Act
8. Sanitary arrangements in Fairs and Festivals
9. Decentralised administration in Kerala

10. Steps in the preparation of a Project report

PAPER IV BEHAVIOURAL SCIENCES SOCIOLOGY, PSYCHOLOGY & MENTAL HEALTH

Sl. No.	Item	Marks	Hours of teaching	Other details
1	Sociology Theory & Exercises	50	80	Theory: 100 marks Viva-voce: 50 marks Record: 15 Oral : 25
2	Psychology Theory & Exercises	40	64	

3	Mental Health Theory & Exercises	10	16	Internal Assessment: 10 marks TOTAL: 150 MARKS
Total No. of hrs		-	160	

SOCIOLOGY

1. Introduction
 - i. Definitions-Sociology, Medical Sociology, Society– Rural and urban society, Community, Social institutions, Social structure, Sociometry and Sociogram
 - ii. Community- characteristics, major rural problems, major urban problems, Social and economic change in communities, Common health problems in community and health worker's role in prevention and control of health problems, social and economic change in community, organizing community for change, effects of social and economic change-community organization- definition and principles
 - iii. Community Diagnosis and treatment
KAP study, Methods of data collection, Questionnaire, Schedule, Interview, technique of interview, Survey-familiarize general survey, socio-economic survey, health survey, base line survey, nutritional survey, immunization survey, Community Diagnosis and community treatment
 - iv. Community development
Community development – definition, Community development blocs, main activities
 - v. Leadership
Definition, Need to work through community leaders, identification- sociometric method familiarize i. Selective group method ii. Systematic sampling method, utilization of leaders in health programs, Formal leaders, Informal leaders, Opinion Leaders-training camp for community leaders .
 - vi. Social groups
Social groups-definition, characteristics primary and secondary groups, reference groups, familiarize in-groups and out-groups, organization structure and activities of groups and organizations -Group dynamics
 - vii. Universal declaration of Human Rights, Right to Health, Fundamental Rights in the constitution of India, Responsibility for Health

2. Social process
Definition of social process- co-operation, competition, conflict, assimilation, adjustment

3. Social control
Definition of social control-Formal and informal means-
Formal social control-laws- Informal social controls-Traditions and customs, folk ways and mores- Traditions and habits affecting health- Cultural factors in health and diseases

4. Social mobility and Social stratification
Definition of Social mobility- Definition of Social stratification- Caste, Class

5. Socialization
The process of socialization-social learning-imitation, role learning, punishment, reward, development of self, co-operation and adjustment

6. Social problems-
Prostitution, Delinquency, Dowry system, Alcohol abuse and Drug Addiction
7. Social security
Social security –Definition, Social security for industrial workers, civil servants and the General public
8. Social institutions
 - i. Marriage
Marriage- Definition-Types-Polygyny, Polyandry, Monogamy
 - ii. Family-Joint family, Nuclear family, Three generation family-Family cycle-
Functions of family, Basic needs of family. Factors related to family health- income, literacy, cultural pattern of society, Principles of working with families, Importance of family planning to family and community-health factors, socio-economic factors- mortality and peri-natal mortality rates- Family life education - Family in health and disease.

PSYCHOLOGY

1. Introduction
 - i. Behavioural sciences- definition, Psychology-definition, Social Psychology-definition
 - ii. Behaviour- knowledge, attitude and practice/action
Dynamics of behaviour - Stimulus- Response pattern - Causes- Environmental stimuli, Emotions and feelings, Needs, Motivation, Intellectual perception - Responses
 - iii. Habits, values, attitudes, interests, beliefs, goals and aspiration. Role of health worker in bringing desirable change in values, attitudes, beliefs and practice
2. Needs
 - i. Maslow's hierarchy of needs-physiological, safety, love, esteem and self actualization
3. Personality:
 - i. Definition -Components of personality-Types- Introvert, Extrovert, Personality trait – Integrated Personality
 - ii.. Personality in infancy, childhood, adolescence, adulthood and old age.
 - iii. Factors that influence personality development
 - i. Heredity
 - ii. Environment - physical and social
 - iii. Basic needs, drives and urges
 - iv. Early learning
 - v. value systems, attitudes and beliefs
 - iv. Structure of personality- Id, Ego and Super ego
 - v. Personality and Self concept-Self understanding- self-awareness, acceptance
4. Intelligence-
Mental age-Intelligence Quotient- Emotional Quotient-Adult intelligence- Reasoning, thinking, problem solving, decision making
5. Mental hygiene and health in various life stages-infancy, early childhood, later childhood, Adolescence, adulthood, old age. Health education for the family on the care of the aged

6. Emotions and behaviour
 - Importance- expression and control of emotions-negative and positive emotions
 - Role of emotion in health and disease
7. Defence mechanism and behaviour
 - Frustrations and conflicts, Adjustment
 - Common defence mechanisms-Compensation, Negativism, Sympathism, Projection, Identification, Sublimation, Rationalisation, Withdrawal, Repression, Displacement and Regression – Effectiveness of defence mechanism
8. Stress, Illness, Behaviour
 - Stress- definition, Illness- Impact of illness - Helping in times of Stress-Identifying stress situations
 - Counselling and guidance- Basic approaches-Direct and Non-direct approach
 - Conditions for a helping relationship-The Helping process- Stages- Helper's Code-Dos' and Don'ts
9. Motivation and change in behaviour
 - Motives, goals and incentives, level of aspiration, habit formation, significance of motivation in improving health practices-changing attitudes and habits, bringing desirable change in health behaviour, Motivating community for change- Role of health worker
10. Observation and perception
 - Definition of Observation , perception - attention, sustained attention-errors in perception
11. Learning
 - Learning-definition, Conditions of learning-intelligence, age, learning situation, motivation, physical health, mental health
 - Types-cognitive, affective and psycho-motor, theories-learning by conditioning, learning by Trial and error, learning by observation and imitation, learning by doing, learning by remembering, learning by insight
 - Adult learning, Factors affecting adult learning
 - Familiarise Education-Formal, Non-formal and Informal education
12. Family Life Education
 - Definition of Family Life Education - Components- Role of Health Workers
13. Social Psychology –
 - Group behaviour, Social interaction- Inter Personal Skills-acceptance of the individual, appreciation, recognition, approval, - social interaction-inter personal relational relationships inter – group relationships, group morale, behaviour adaptations and maintaining effective relationships

MENTAL HEALTH

1. Mental health –Introduction

Definition of mental health, Characteristics of mentally healthy person, Foundations of mental health, Mental health needs, Warning signs of poor mental health - Adjustment- Causes of maladjustment, Healthy ways of meeting maladjustment

2. Types of mental illness
Major illnesses (Psychoses)-Familiarize with Schizophrenia, Bipolar Disorder and major Depressive Disorder
Familiarize with Anxiety Disorders and Personality disorders
3. Causes of mental ill health
Causes-Crucial points in the life cycle from the point of view of mental health- Prenatal period, Preschool period, school period, adolescence, old age
4. Early detection of mental disorders
Disturbance in thinking, mood consciousness, memory, orientation, perception, emotions, motor aspects of behaviour; personality, intelligence –Role of health worker
5. Types of treatment
Psychotherapy, Pharmaco therapy, Electro Convulsive therapy, Occupational therapy, Recreational therapy- Principles of aftercare - Role of health worker
6. Preventive aspects
Primary, Secondary and Tertiary- Mental Health Services, National Mental Health Programme – District Mental Health Program-Role of health worker in Mental health education - Psycho-social intervention
7. Substance use disorders
Alcoholism- Brief description of effect of alcohol addiction on organ systems, family and social life.
Smoking- Brief description of adverse health effects of smoking on organ systems
Definition of drug, drug abuse and drug dependence - Names of dependence producing drugs- Symptoms of drug addiction-Factors associated with high risk for drug abuse
Prevention - Legal approach, Educational approach and Community approach- Brief description of Treatment and Rehabilitation – Role of health worker

Core Reading

1. Park, K. Essentials of Community Health Nursing-Latest Edition.
2. Chalkley,A.M.A Textbook for the Health Worker (ANM)- Volume I
3. Chalkley,A.M.A Textbook for the Health Worker (ANM)- Volume II
4. Supe,S.V. An Introduction to Extension Education. Oxford and IBH Publishing Co.Pvt. Ltd.
5. Comprehensive Text Book of Psychology

Further reading

1. Park,K.Park's Textbook of Preventive and Social Medicine -20th Edition
2. Park,K .Essentials of Community Health Nursing-Latest Edition
3. Ministry of Health and Family Welfare, Govt. of India;RCH Module for Health Worker (Male)

5. Ministry of Health and Family Welfare, Govt. of India;RCH Module for Medical Officer (Male)
6. Coleman,J.C. Psychology and effective behaviour
7. Guilford,J.P.Personality. New York:Mc Graw Hill Book Company

Exercise

1. Preparation of sociogram
2. Preparation of any one survey tool
3. Pre-testing the survey tool
4. Interact with community and find out cultural factors in health and disease
5. In OP Department or in the community , talk with people in different stages in life such as adolescence, young married, old age etc. and identify their problems – Do this during field placement
6. Role play on motivation for adoption of family planning
7. Counselling Process
8. Visit to a mental health centre (i) observe types of mental illness (ii) occupational therapy (iii) recreational therapy
9. Group discussion on role of health workers in early detection of mental disorders

Topics for Record

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

1. Identification and utilization of leadership in the community
2. Cultural factors in health and disease
3. A survey tool developed for data collection from the field placement area
4. Universal declaration of human rights and right to health
5. Sociogram. Illustrate with a diagrammatic representation of a sociogram of any aspect in the block placement area
6. Behavioural sciences- Psychology, Sociology and Social Psychology
7. Factors influencing human personality
8. Motivation in improving health practices
9. Counselling
10. Mental health-Definition, Characteristics of a mentally healthy person, Role of health worker in Mental health education

PAPER V

Non Communicable disease, Biomedical waste management, Palliative care & Geriatric Health

Topics	Hours of teaching	Marks			
		Theory	Viva	Record	Internal
Non-communicable Diseases	80	50			
Bio Medical waste management	32	20			

Palliative care	32	20			
Geriatric Health	16	10			
Total	160	100	25	15	10
Total Marks	150				

Non Communicable diseases

I. Introduction to non communicable diseases

- What are non communicable diseases? WHO cluster of non communicable diseases?
- Increasing trend in non communicable diseases - Cardio Vascular Diseases (CVD), Diabetes mellitus(DM), CANCERS , Chronic Obstructive Pulmonary Diseases(COPD), Mental health, injuries.
- Dual burden of communicable & non communicable diseases epidemiological & demographic transition
- Social changes, which favour the rise in non communicable diseases life style changes as a dominant factor in the rising burden of non communicable diseases.
- Common underlying risk factors predisposing to non communicable diseases.

II. Risk factors of non communicable diseases

- Difference between risk & cause
- common risk factors of non communicable disease
- Tobacco, alcohol, obesity, diet & physical activity

III. Risk factor modification

- How prevention is better than cure
- Primary & secondary prevention of non communicable diseases.
- Strategies on various risk factor modification
- Population based approach Vs individual approach
- Example from some global and Indian strategies
- Counseling , behaviour change and communication.

IV. Risk factor surveillance of non communicable diseases

- Relevance of risk factor surveillance
- What is surveillance? Difference between surveillance & survey.
- WHO steps approach

V. Cardiovascular diseases

- What are cardiovascular diseases
- overview on myocardial ischaemia, infarction, stable angina unstable angina, angina pectoris.
- Measuring the burdens of CVD
- Indian & Kerala scenario
- Risk factor for Coronary Heart Diseases(CHD) , mechanisms by which principal risk factors contribute to CHD

- Prevention of CHD – Population strategy high risk strategy secondary prevention.

VI. Hypertension

- What is hypertension ? Scenario in India & Kerala
- Risk factors
- Prevention

VII. Stroke

- What is stroke? What is Transient Ischaemic Attack (TIA)?
- Magnitude of the problem
- Risk factors
- Stroke control programme

VIII. Rheumatic heart disease

- what is Rheumatic Fever (RF) ? What is RHD?
- Clinical features of RF
- Criteria for RF?
- epidemiological factors contributing to the disease
- Direct & indirect results of environmental & health system determinants of rheumatic fever & rheumatic heart disease
- prevention of RHD.

IX. Cancer

- What are cancers?
- Common forms of malignancies
- Common malignancies in Kerala
- Importance of early detection, control of risk factors, other life style modification, treatment compliance

X. Diabets mellitus

- What is DM?
- Clinical features
- Clinical classification of DM
- Difference between IDDM & NIDDM
- Insulin resistance syndrome
- Common complications of DM just an overview
- Problem statement in world & in India
- Epidemiological factor causing the diseases
- Screening for diabetes importances of early detection.
- Prevention & care of DM

XI. Obesity

- Definition
- Prevalence
- Epidemiological factors contributing to obesity
- Use of BMI to classify obesity
- Hazards of obesity

- Prevention & control

XII. Blindness

- Definitions
- Categories of visual impairment
- Problem statement in India & world wide
- Causes of blindness
- Epidemiological factors contributing to blindness
- Changing concepts in eye health care
- Prevention of blindness
- National & international agencies
- Vision 2020 : the right to sight

XIII. Accidents & injuries

- Definition
- Measurement of the problem
- Types of accidents
- Multiple causation
- Prevention.

XIV. Seminars, action plans & Role plays on topics as follows.

- Seminar on routine surveillance & monitoring of non communicable diseases
- Action plan for a health promotion strategy for prevention of CVD in grama panchayat.
- Role play on measurement of height, weight, BMI, BP & waist circumference.
- Action plan for a health promotion strategy for prevention of diabetes in a grama pahchayats.
- Action plan for a health promotion strategy of prevention of stroke in grama Panchayats.

Bio Medical Waste Management

I. Bio-medicalwaste-definition

Sources of Health care waste-classification of Health care waste – Bad effects of poor – waste management – Hazards from infections wastes and sharps – Hazards from chemical & pharmaceutical waste – Hazards from radio active wastes – persons at the risk of infection.

II. Bio Medical Waste (Management & Handling) Ruler 1998 – objective – applicability. Responsibilities of health care institutions regarding biomedical waste management. Process of Biomedical waste management segregation – storage – transportation – final disposal.

III. Schedule I of Biomedical waste management Rules 1998.

Schedule II of Bio Medical waste management Rules 1998.

Transportation of Bio Medical Waste.

Treatment & Disposal of Bio Medical Waste - Incineration – chemical Disinfection– microwave irradiation – Land disposal – intertization.

Label for Bio –medical waste containers/bags. Schedule III of Bio medical waste management Rules 1998.

Books recommended

1. Park's text on Preventive and social medicine by K.Park.
2. Essential of community Health nursing by K.Park.

Palliative Care

- I. Palliative Care-Definition, Guide lines of World Health Organization
- II. Relevance of Palliative Care, Services, Palliative care scene in Kerala, Observance of World Palliative Care Day on 8th October
- III. Involvement of different sectors - Government sector: Field level and sub centre level activity, PHC and CHC, Taluk Head Quarters Hospital
 - Community Based Organisations(CBOs):
Responsibilities, Support for CBOs
 - Role of Health Workers
- IV. Selection of beneficiaries and provision of services: Registration of patients suffering from long term diseases, Home based care
- V. Evaluation and Monitoring
- VI. List of Palliative care centres in Kerala

Recommended books:

1. Pain and Palliative Care Policy for Kerala ([G.O.(P) No.109/2008/H&FWD dated 15-4-2008
2. Santhwanam-Palliative Care guidelines produced by DMOH, Tvpm.

Geriatric Health

Geriatrics – definition

Gerontology – definition

Features of old age-classification of the old.

Health problems – Problems due to ageing process-problems associated with long term illness – psychological problems.

Life style & healthy ageing – diet & nutrition – exercise – control of weight smoking – alcoholism – social activities.

Health status of the aged in India – Brief description of National Policy on old persons
Objectives of National Policy on old persons.

Objectives of national council for old people (NCOP) – objectives of old age social & Income security (OASIS) – functions of Help Age India.

Book recommended:-

- 1.Park's text on Preventive and social medicine by K.Park.
2. Essential of community Health nursing by K.Park.

Reference :- "Health in old age" – by WHO, Ministry of H & FWD, AIIMS

Exercise

- 1.Prepare and submit a report on collection, storage and disposal of Biomedical waste in the hospital where the students have undergone field study.
- 2.Prepare a report on the new challenges due to alternation of the age pyramid.
- 3.Prepare a register for identification of beneficiaries for palliative care services in the block placement area
- 4.Prepare a project on Palliative Care for a Panchayat area

Topics for Record

Students are expected to prepare and submit a bonafide record which should contain the following exercise

- 1.Coronary heart disease- Causes, Symptoms, Prevention and role of health worker
2. Health hazards of tobacco
- 3.Common cancers and their aetiological factors
4. Risk factors of Diabetes mellitus
5. Rheumatic fever- Definition, Epidemiology and Clinical features
- 6.Bio-Medical waste management and its relevance
- 7.Schedule I and II of BMWM Rules
8. Various problems during old age.
9. Palliative care- Definition by WHO, Services
- 10.WHO guidelines on palliative care

Students need to be given an orientation of all current developments of public health importance in each subject in order to facilitate them to carry out job functions of a Junior Health Inspector.

FIELD STUDY

As a part of curriculum of Diploma in Health Inspector Course 5 Nos. of observation visits and one-month field placement in a rural health setting is compulsory for 1st and 2nd year DHI course. 15 days' field experience in the municipal/corporation area is a must for first DHI and 15 days' field experience in an urban hospital is a must for second DHI students.

Field study provides practical experience of theoretical knowledge gained in the classroom. The job function of a health worker includes the provision of comprehensive primary health care to the community. The fieldwork equips the prospective health inspectors with the abilities to carry out the job functions of health inspectors in future.

The DHI students of 1st and 2nd year are to be placed in an approved primary health centre for one month. The fieldwork facilitates them to be an active partner in promotive, preventive and curative services being rendered by the PHC. They learn the role of health inspector in the implementation of National Health Programmes.

The first DHI students should be given an orientation on the functioning of a CHC/PHC and job functions of a health inspector.

For second DHI students the fieldwork gives opportunity to learn the following

1. Knowledge, attitude and practice study
2. Community diagnosis
3. Different community partnership methods such as Chappathi diagram, Seasonality diagram, Village walk
4. Identification of various health indicators of PHC area
5. Various Reports prepared and Registers maintained by the JHIs
6. All reports related to health sent from PHC/CHC to DMO - Birth and Death reporting
7. Well chlorination - Demonstration
8. Record temperature, pulse, BP,
9. Measure Waist circumference
10. Calculate Body Mass Index
11. Identification of community leaders
12. Village leaders' training camp
13. Identification of felt needs in the community/ block placement area
14. Preparation of a project on the identified felt needs which needs urgent action

15. Projects submitted by PHC to Secretary, Block panchayat
16. Preparation of a survey schedule/questionier
17. Survey, Vector survey, larval indices calculation, recommended control and prevention strategies
18. Demonstration and proper application of chemical insecticides-larvicides and adulticides
19. Half day and full day zonal meetings at the PHC/CHC
20. Maintenance of daily diary
21. Job responsibilities of JHIs in the delivery of Primary Health Care approach

22. Preparation of press release on any function or observance of a day of national health importance conducted in block placement area
23. Health communication on identified health need in the PHC area with folk media as the channel
24. Conduct of health talk to women's group and understanding communication process
25. Non- communicable diseases prevailing in the block placement area and the causative factors
26. Socio- cultural factors of health and illness in the block placement area
27. Physiological and Psychological problems of individuals in different stages of life
28. Motivating couples to adopt family planning methods
29. Motivating resistant family to immunize their child with Pulse Polio or any other immunization
30. Students may be familiarized with online reporting system from PHC to higher authorities in the Department of Health Services.

The field placement should facilitate students to get a practical knowledge of Sanitary well, Soakage pit, Different types of sanitary latrines suitable for rural areas, Compost pit, Smokeless Chulah, Gobar gas plant, A ventilated house, Paved lanes, Different types of drains for rural population, A washing platform, Sanitary cow shed, Rat proof go down, Larvae of flies and mosquitoes and their breeding places, Chlorination of well, Constructing a sanitary latrine.

Visit to Health Wing of the Municipality/Corporation, Public Market, Factory, Food Processing and handling unit, Public water supply project, Waste management system if there are facilities in the block placement area. If such facilities are not available in the block placement area, the training school must make arrangements.

The students have to submit daily report of activities in the placement area promptly to the designated staff of PHC/CHC.

Institutions identified for observation visit for DHI course are the following.

1. Analytical Lab
2. Public Health Lab/Regional Lab
3. Institute of Mental Health
4. Juvenile Home
5. Jail
6. Press
7. Geriatric Ward, General Hospital / Old Age Home
8. Palliative Care Ward, General Hospital
9. An ICDS Unit
10. Water Authority

11. Sewage Treatment Plant
12. Slaughter House
13. Census Directorate
14. FRU, Post Partum Unit
15. Latex
16. Pasteurization Plant
17. Infectious Diseases Hospital like TB centre
18. Special Schools for physically and mentally challenged
19. Disability Rehabilitation Unit
20. A mother NGO funded fully or partially by Health Services Department

Observation visits to a minimum of 5 institutions should be arranged each year. Reports of observation visits are to be submitted to the invigilators during viva-voce examination.

PROJECT PROPOSAL

A project proposal is written, to make an offer and to try to convince a supervisor or a future customer to accept it. In a project proposal you state that, in exchange for time and/or money, make something they desire ie.a prototype of a new product, or do something they wish to have done .In other words, you are asking a decision-maker to invest a resource, so that the project you propose can be completed, and your readers, whether a future supervisor within your own organization, or your client for your project, will invest their resources carefully. Therefore, it is crucial that your proposal answers questions your readers may have about what you propose to them. For example, the most important question your proposal readers will want answered is how does your proposal relate to them? In other words, what problem will it solve, what need will it address, and why is it important to them? Secondly, your proposal readers would like to know exactly what you are proposing to make or do, and how it relates to the problem you are describing. In other words, they will want to be convinced that you have a plausible solution procedure to the problem, and to know what this solution procedure involves. Your readers would also like to know exactly what they would be getting from a given project, and how much these deliverables will cost. Further, they would like to be assured of your capability to analyze and solve your project's problem, and produce the deliverables that you claim you will produce. A successful project proposal identifies and answers all of the above needs.

The project should outline

- a. the specific objectives of project,
- b. technical approach to be used in solving the problem or developing the product and
- c. the anticipated results of the project

and should answer the following questions:

- a. Is the problem sufficiently important to justify money, time, and your effort?
- b. Is the project well defined and realistic?
- c. Have you outlined a sound approach, including your ability to perform the tasks?

Thus the project proposal should answer five W's

What?- the actual problem

Why? – Need for the study/ significance

How?

Who?] Method

Where?

STEPS IN A PROJECT PROPOSAL

Project Goals and Objectives : The proposal must clearly specify the goals, objectives and needs of the project.Goal is defined as the ultimate desired state towards which objectives and resources are directed. Objective is described in terms of 1. what is to be attained? 2.extent to which it is to be

obtained? 3. the population or section involved 4.the geographic area in which the proposed program will operate 5.length of time required for attaining the proposed change. One goal have two or three objectives. Goal is attained when all the objectives are attained.

Goals are broad and objectives are narrow. Goals are general intentions and objectives are precise. Goals are abstract and objectives are concrete. , Objectives serve to establish the scope and boundaries of the project in the form of functional specifications. Normally there can have one to three objectives .Each objective should be no more than one to three sentences

The objective should include the general functions that your product must perform or your activities will carry out. This section should have quantifiable measures of performance.They should be appropriate to the nature of the problem it seeks to address. The project activities should be consistent with the felt needs of the community, government priorities and strategies. The project should integrate project implementation along with its ongoing activities.

PROJECT CONTEXT: The proposal must indicate that the existing problems in the identified geographical area, where it wishes to implement the project. The proposal must take into account the existing or potential constraints that might impede the development and implementation of the project and mention the processes devised for overcoming the same.

PERSONNEL: The organization should have minimum staff for implementation of the project. The curriculum vitae of each staff (full time/part-time) involved in the project activity must be provided along with the Project proposal. For example in a project on integrating malaria control activities with the existing programmes of the organization, wherever possible, qualified personnel already present should be involved to carry out the project activities.

WORK PLAN: A plan is a blue print for action. Through planning facilitating factors are made ready to carry out source reduction activities successfully. This involves

(1.) identifying resources such as man, money and material resources, and making them available at right time when required (2) plan of smooth and effective implementation and (3)identifying indicators of process and outcome The Work plan should give detailed descriptions of the services to be provided; dates for completion of various tasks, place of performance for different tasks. It should be clear and have potential for achieving the project objectives. There should be scope for participation by the target group and community in planning, implementation and evaluation of the project. The project duration should be specified. The proposal should have a calendar of activities for each month. The organization have to clearly identify tasks to be carried out, reporting requirements and review processes, output indicators that are measurable at the project proposal stage. The organization will have to clearly indicate the schedule for completion of tasks, against which the progress of the project can be evaluated in the project proposal.

BUDGET: The budget lines should be clearly laid out. It should be reasonable and adequate to carry out the specified activities. The role of each staff projected in the budget should be justified.

PROJECT OUTPUT: The proposal must specify clear, qualitative and quantitative output indicators, consistent with the project objective(s).

PROPOSAL SUBMISSION: The proposal is to be submitted to the Medical Officer of PHC (MOPHC) for onward transmission to the District Medical Officer (DMO) or directly to the financing authorities.

1. A Title Page, which lists a brief descriptive title of your project, for eg. Promotion of insecticide treated bed nets in(name and location of the targeted place)/ Promotion of larvivorous fish in(name and location of the targeted place)/ Indoor residual spraying in(name and location of the targeted place)/, the names and addresses of the individual(s) to whom the proposal is being submitted, the names and phone numbers of the individual(s) submitting the proposal, and the date of submission. Title Pages may also include additional information such as the proposed starting date of the project, the proposed project duration and completion date, and the cost of the project or amount of funding required.

2. An Introduction, which provides more complete background of the project than the Executive Summary, and which indicates your knowledge of the organization, the current situation existing in the organization, and the problem itself.

3. An Executive Summary, which provides a brief (about one page) overview of the proposed project. This is probably the most important section of your proposal, because it provides a clearly defined problem and proposed solution procedure, and a description of the expected project deliverables. The Executive Summary is often the only section of your proposal that some readers will read; and must present all the relevant information as clearly and effectively as possible. It is often the last thing to be written.

4. Goals and objectives: Goals and objectives are to be clearly specified. Process and outcome indicators are framed based on the goals and objectives.

5. Team Organizational Structure. This section provides a summary of the group of functionaries related to the project. An organizational chart gives the details of responsibility of each team member.

6. Work plan, which identifies the approach that the team will use to meet the project objectives. You should explain here your principal tasks, their duration, their sequence and their particular purposes. Wherever possible, the methods and task to be performed should be outlined in logical sequence and explained in detail.

7. Project Timeline is a chart that defines the sequence in which you need to do the various steps in the project. Indicate on the chart the deadlines for working on and completion of the various steps in the process. This can be included in the work chart or as a separate sub head.

8. Budget: The anticipated expenditure may be calculated and included in the plan so that the funding agency can ascertain whether the proposal is within their available fund. Self explanatory financial break-up should be included in the work plan or attached to the appendix.

9. Appendix: The body should carry the main message, while the appendices contain supporting information, data backing up your claims in the body, and detailed calculations which may be of importance to some readers who require additional details. If the appendix does not contribute to the overall document, don't put it. You as the writer have to make the decision on what should be included.

Estimated Length: Approximately 10 pages

Tips for Writing Your Project Proposal

An effective proposal will identify and meet the needs of your readers by first considering what they will expect to learn from the proposal, and by then providing that information clearly and effectively. Your final grade for your proposal will be based on how well you have been able to do this, using the guidelines provided. Therefore, while writing your proposal, remember to:

- Imagine yourself in your readers' position and ask if it answers all of your questions. Your client would like to know whether you can provide a sound and concrete technical solution to the problem, along with a clear procedure for arriving at such a solution. They will also want to know that you can offer realistic and reasonable costing with demonstrated financial responsibility, and realistic and reasonable timing with intelligent and thoughtful planning.
- Take into consideration that there are other possible solutions to the problem at hand, and examine the strengths and weaknesses of those alternative solutions.
- Keep in mind that effective professional communication should promote goodwill between you and your client. Present an effective plan for communicating with your client, and promise quality control and reliability checks on work in progress.
- Check spelling, grammar and punctuation before printing out the final draft of your proposal, and be sure that the final draft appears as a professional document, free of errors.
- Make sure that the proposal is paginated properly, and is also reader-friendly. In other words, is it laid out effectively, can a reader spot new sections easily, does it look professional etc.?
- Note that writing style varies depending on the writer and the intended reader. However following are often true:
 - Diversity of sentence structure is desirable to stimulate reader's interest, but should not unnecessarily add to the length or should not confuse the reader.
 - Your written proposal and future reports should emphasize the concise documentation of a technical, complex engineering activity.
 - Lack of needed information cannot be covered up by confusing statements.
 - Use concise sentences; nouns should not be I, we, there, it, this, etc.

+++++

+++++

+++++

