P.G DIPLOMA IN HEALTH AND SANITATION

PAPER I: Communicable and Non-Communicable Diseases

PAPER II: Human Anatomy and Physiology

PAPER III: Community Health and Nutrition

PAPER IV: Environmental Sanitation

PAPER V: Public Health Administration

PAPER VI: Behavioral Science and Communication

Practical – 1
UNIT I

UNIT II
Community Mobilization and Involvement; Transmission of Contact Diseases – Types, Symptom, mode of transmission, treatment, prevention and control; Vector Borne Diseases, Emerging and Re-emerging Infectious Diseases; Diseases of Faecal-oral Contamination, Helminthes Diseases, Acute Respiratory Infections; Diseases of Contact with Animals or Animal Products.

UNIT III
Non-Communicable Diseases – Definition, characteristics and classification, Infection - principles of infection and Control (Standard Precaution), difficulties/burden, Risk Factors and determinants,

UNIT IV
Progress of Ongoing National Programmes for NCDs, Plan of Action to Prevent and Control of Communicable and Non-communicable Diseases during 12th plan; Programmes for Prevention and Control of Life Style Chronic Diseases, Disability Prevention and Rehabilitation, Health Promotion and Prevention of NCDs and risk factors,

UNIT V
Broad Organizational Structure at National, State & District levels, Composition of Working Group on Disease Burden (NCD) & sub-groups; Plan of Action to Prevent and Control NCD During 12th plan.
Reference


Paper II: Human Anatomy and Physiology

Unit I

Musculo-Skeletal System and Sense Organs: Animal tissues classification such as epithelial, muscular, nervous, connective and blood tissues; Musculo-skeletal system: structure and functions of bone, cartilage and connective tissues; Types of muscles, structure and functions; Disorders of the muscle-skeletal system. Sense Organs: Structure and function; Role of skin, eye, nose and tongue in perception of stimuli

Unit II

Central Nervous and Endocrine System: Central Nervous System: Structure and function of brain and spinal cord; Hypothalamus and its role in various body functions; Structure and functions of neuron and role of neurotransmitters. Endocrine system: Structure, function and role of hormones and regulation of hormonal secretion; Disorders of endocrine glands.

Unit III

Cardio-Respiratory System: Circulatory System: Structure and the functions of heart and blood vessels; regulation of cardiac output and blood pressure; common disorders of the circulatory system. Respiratory system: Structure and function; mechanism of respiration; Role of lungs in the exchange of gases; Effect of exercise and training on cardio-respiratory system.

Unit IV

Digestive and Excretory System: Digestive system: Structure and functions; Secretory, digestive and absorptive functions; Role of liver, pancreas and gall bladder in digestion process and its dysfunction. Excretory system: structure
and function of nephron and urine formation; Role of kidney in water, electrolyte and acid base balance; common disorders of kidney.

Unit V

Blood, Reproductive and Immune System: Blood system: Formation and function of plasma proteins; Erythropoesis; Blood groups and Rh factor; Blood indices for diagnosis of specific diseases or disorders. Immune system: Cell mediated and humoral immunity; Activation of WBC and production of antibodies; Role of inflammation and defense. Reproductive system: structure and function of male and female reproductive organs; Physiology of menstruation and fertilization; Physiology of lactation.

References:


**Paper III: Community Health and Nutrition**

**Unit I:**

**Fundamentals of Human Nutrition:** Nutrition and Health definition; Nutrients: Carbohydrate, protein, fat, vitamins, minerals classification and its physiological functions; digestion, absorption and metabolism of nutrients; Physiological functions of water and its role in electrolyte balance; Definition of energy and calorie; Energy balance concept; Techniques used for measurement of energy expenditure and energy value of foods.

**Unit II**

**Nutrition through the life cycle:** Definition of Recommended Dietary Allowances (RDA), Reference men and women; Nutritional requirements for different age groups such as infants, children, adolescent, adults and old age; The concepts of balanced diet, Basic five food group classification, food pyramid and exchange list for health living; Menu planning: Principles of meal planning and the factors influencing it.

**Unit III**

**Introduction to community nutrition:** Definition of community nutrition; the relationships between food and health; Prevalence of nutritional problems in the community: Macro and micro nutrient deficiencies and its clinical signs and symptoms; Malnutrition: Under and over – nutrition, causes, signs and symptoms, prevention and treatment; Vitamin A, Iodine and Iron deficiency: causes, signs and symptoms, prevention and treatment; Over-nutrition health problems: overweight and obesity related health risks.
Unit IV

Assessment of Nutrition status of the community: Nutritional status definition; Assessment methods: direct assessment such as anthropometry, biochemical method, clinical examination, diet survey, biophysical methods; Indirect methods: Food balance sheet, Agricultural data, ecological parameters and vital statistics – use of growth chart, merits and limitations of each method.

Unit V

National and International organization working for community health: Need of nutrition and health education: Principles of planning, executing and evaluating, nutrition education programmes and problems in conducting health and nutrition education programmes. The role of National Organization in community health: National Nutritional Policy, supplementary feeding programmes, ICDS programmes, Tamil Nadu Integrated Nutrition Programme (TINP), Mid day meal programme Special Nutrition Programme, NIPCID, NNMB; The role of International Organizations in community health: UNICEF, FAO and WHO.

References


Paper IV: Environmental Sanitation

Unit I


Unit II

Diseases and Illness: Transmission of diseases through air, water, food and contact. Other sources: Insect vector and rodent control-Housefly, Mosquito and other carriers of diseases,. Preventable measures: cleanliness, quality of life, positive health behavior. Health hazards and control measures: housing keeping, proper food habits and housing facilities.

Unit III

Housing: characteristics of house: housing location, neighbourhood. Basic elements of good housing - ventilation and spacing, details of house plumbing and drainage. Industrial hygiene-sources of dust and gaseous pollutants in the industry occupation hazards, exposure tolerance level of protection measures and legal control.

Unit IV


Unit V

Protective measures for environmental degradation: environmental monitoring, creating awareness on environmental protection, legal protection on environment. Chipko Movement, Mono lake case, love cannal case, Kyoto Protocol.
References


Paper V: Public Health Administration

UNIT I


UNIT II


UNIT III

Public Health Infrastructure: Essential Health Care Services and Implications, Future of the Public’s Health, National and International Organizations’ effort, Community responsibilities in Medicine and Public Health.

UNIT IV


UNIT V

Text Books:

Paper VI: Behavioral Science and Communication

Unit I

Concepts in behavioral science: Prejudice, attitude, personality, traits, character. Attitude: concept and meaning of attitudes, factors affecting formation of attitudes, type of attitudes, characteristics of attitudes. Personality: determinants of personality, personality and behavior. Group dynamics: concepts and meanings, types of groups, determinants of group behavior, difference between groups and teams.

Unit II


Unit III

Communication: Meaning, definitions, elements and significance. Need for communication - Evolution of Communication - Different milestones in communication, Variables of communication - Different forms of communication Verbal, Nonverbal, written communication. Level of communication - inter personal communication – communication and socialization. cultural transmission, dysfunctions of mass communication – communication and research.

Unit IV

Unit V

**Media and communication:** definition, types of media: print media, electronic media and Mass media. Communication gap and its problems, factors responsible for communication gap. Culture of communication: social values, customs, traditions.

**Reference:**


Practical – 1

An enrolled student has to undergo a one month training at hospitals either in government or in private under the sanitary and health conditions which is prevailing there. He/ she to get the certificate from the administration which state that the training provided by them must be related to the title of the course: Health and Sanitation.

The enrolled student has to submit an original work done by him/her starting from introduction, review of literature, methodology and experience in the hospitals in the form of analysis and interpretation beside conclusion too. The report does not exit 8000 word to 10000 words. The report also should consist of certificates, declaration, content, acknowledgment and tables, diagrams, graphs (if any).

1. The field work components are mandatory for the enrolled students. For the report the students can get 100 marks the full length report should be submitted to the head of the Department of Sociology, before the last day of the examination conducted for the PG diploma and diploma for the health and sanitation.
P.G.Diploma in Health and sanitation

2. QUESTION PAPER PATTERN

Time: 3 Hours
Max Marks : 100
Passing Min:  50

PART – A: (5X5=25)
(Answer All Questions)
Two Questions from each unit with Internal Choice

PART – B: (5X15=75)
(Answer All Questions)
Two Questions from each unit with Internal Choice