

Syllabus for the post of

(1) Professor, Community Medicine/P.S.M. Class-I

(Advt. No.: 35/2019-20)

(2) Associate Professor, Community Medicine/P.S.M. Class-I

(Advt. No.: 66/2019-20)

(3) Assistant Professor, Community Medicine/P.S.M. Class-I

(Advt. No.: 102/2019-20)

Marks – 200

Questions-200

Medium: English

1. CONCEPTS IN HEALTH

Definition of health; appreciation of health as a relative concept; determinants of health. Characteristics of agent, host and environmental factors in health and disease and the multifactorial etiology of disease. Understanding of various levels of prevention with appropriate examples. Indices used in measurement of health. Health situation in India: demography, mortality and morbidity profile and the existing health facilities in health services. Difficulties in measurement of health. National Health Policy.

2. EPIDIMIOLOGY

Use of epidemiological tools to make a community diagnosis of the health situation in order to formulate appropriate intervention measures. Epidemiology: definition, concept and role in health and disease. Definition of the terms used in describing disease transmission and control. Natural history of a disease and its application in planning intervention. Modes of transmission and measures for prevention and control of communicable and noncommunicable disease. Principal sources of epidemiological data. Definition, calculation and interpretation of the measures of frequency of diseases and mortality. Common sampling techniques, simple statistical methods for the analysis, interpretation and presentation of data frequency distribution, measures of central tendency, measures of variability, statistical tests of significance and their application. Need and uses of screening tests. Accuracy and clinical value of diagnostic and screening tests (sensitivity, specificity, & predictive values). Epidemiology of communicable and non-

communicable diseases of public health importance and their control. Epidemiological basis of national health programmes. Awareness of programmes for control of non-communicable diseases. Planning and investigation of an epidemic of communicable diseases in a community setting. Institution of control measures and evaluation of the effectiveness of these measures. Various types of epidemiological study designs. The derivation of normal values and the criteria for intervention in case of abnormal values. Planning an intervention programme with community participation based on the community diagnosis. Applications of computers in epidemiology. Critical evaluation of published research.

3. EPIDEMIOLOGY OF SPECIFIC DISEASES

Extent of the problem, epidemiology and natural history of the disease. Relative public health importance of a particular disease in a given area. Influence of social, cultural and ecological factors on the epidemiology of the disease. Control of communicable and non-communicable disease. Institution of programmes for the education of individuals and communities. Investigating a disease epidemic. Knowledge of the National Health Programmes. Level of awareness of causation and prevention of diseases amongst individuals and communities.

4. BIostatISTICS

The scope and uses of biostatistics. Collection, classification and presentation of statistical data. Analysis and interpretation of data. Obtaining information, computing indices (rates and ratio) and making comparisons. Apply statistical methods in designing of studies: Choosing of appropriate sampling methods and sample size, Applying suitable test of significance, Use of statistical tables.

5. ENTOMOLOGY

Role of vectors in the causation of diseases. Steps in management of a case of insecticide toxicity. Identifying features of and mode of transmission of vector borne diseases. Methods of vector control with advantages and limitations of each. Mode of action, dose and application cycle of commonly used insecticides.

6. ENVIRONMENTAL HEALTH

Importance of external environment (air, water, noise, radiation, temperature, ventilation, solid waste disposal, insects and vectors, domestic and country yard pests, industrial waste disposal etc. and its impact on ecology and human health. Health issues related to housing, air, water, noise, radiation pollution i.e. size of problems, area and specific groups affected, measurement of pollution levels and health impact of the same, corrective measures. Requirements of water, water chlorination and household purification measures, measurement of chlorine demand, Break-point chlorination levels, water quality. Assessment of quality of water and air, control of air pollution. Environmental sanitation and control measures (including appropriate technologies) – modern methods of sewage disposal, mechanical ventilation, soakage pits, gobar gas plants, smokeless Chula, solar energy, rainwater harvesting, sewage water recycling plants at society level etc. Global warming and its health impact. Forest reserves, social forestry and health. Study vectors of medical importance and integrated control measures against them. Dynamics of transmission of vector borne diseases. Pest control measures. Environmental health issues in urban and rural areas. Functioning of public sector measures to safeguard environmental health e.g water purification plant. Legislative measures for protection of environmental health.

7. REPRODUCTIVE & CHILD HEALTH (RCH)

Need for specialised services for women and children. Magnitude of morbidity and mortality in these groups in a given area. Local customs and practices during pregnancy, childbirth and lactation. Concepts of “high risk” and “MCH Package”, child survival and Safe Motherhood, Integrated Child Development Services Scheme and other existing regional programmes. Under-5 : morbidity, mortality, high risk and care. Monitoring of growth and development and use of Road to Health Chart. Immunization. Organization, implementation and evaluation of programmes for mothers and children as per National Programme guidelines. Role of Genetics in Community Health and Genetic Counselling at Primary Care Level. National Policy in children.

8. DEMOGRAPHY & FAMILY PLANNING

Definition of demography and its relation to Community Health. Stages of the demographic cycle and their impact on population. Definition, calculation and interpretation of demographic indices like birth rate, death rate, growth rate, fertility rates. Reasons for rapid population growth in the world, especially in India. Need for population control measures and the National Population Policy. Identify and describe the different family planning methods and their advantages and shortcomings. Principles of Counselling; Client satisfaction. Medical Termination of Pregnancy Act. Organisational, technical and operational aspects of the National Family Welfare Programme and participation in the implementation of the Programme. Target Free Approach. Give guidelines for MTP and infertility services. Recent advances in contraception. National Population Policies.

9. HEALTH CARE ADMINISTRATION AND HEALTH MANAGEMENT

The conceptual difference between Administration and Management, Power and Authority with reference to health care. The role of fundamental principles of constitution, principles of Democracy and its correlation with health care administration. The role of Bureaucracy, Technocracy, Political system, Judiciary, Media and people in health care administration. The key positions and their role in health administration at State, District, Taluka (Tehsil block) and village level. The frame work of health care system at State, District, Taluka & village level and the mechanism of coordination between bureaucrats, technocrats, political, judiciary and media at each of these levels. Functions of a manager, concepts of management and leadership styles, various management techniques, planning process, monitoring & evaluation skills. Quality issues in health care management and relevant quality management techniques.

10. NUTRITION

Nutritional problems of the country; Role of nutrition in Health & Disease. Common sources of various nutrients and special nutritional requirement according to age, sex, activity, physiological conditions. Nutritional assessment of individual, families and the community by selecting and using appropriate methods such as: anthropometry, clinical, dietary, laboratory techniques.

Compare recommended allowances of individual and families with actual intake. Plan and recommend a suitable diet for the individuals and families bearing in mind local availability of foods, economic status etc. Common nutritional disorders: protein energy malnutrition, Vit. A deficiency, anemia, iodine deficiency disorders, fluorosis, food toxin diseases and their control and management. National Nutritional Policy. National programmes in nutrition and their evaluation. Food adulteration: prevention and control.

11. SOCIAL AND BEHAVIORAL SCIENCES

Influence of social and behavioral practices on health. Principles of behavior change of an individual and community. Difference between knowledge, attitude and practices. Importance of social medicine and health. Importance of behavior change communication (BCC). Socio-cultural factors influencing behavior change. Formal and informal organizations in the community. Influence of peer pressure. The health problems, where BCC interventions are necessary. Factors promoting and detrimental to BCC.

12. OCCUPATIONAL HEALTH

Relate the history of symptoms with the specific occupation including agriculture. Identification of the physical, chemical and biological hazards to which workers are exposed to while working in a specific occupational environment. Diagnostic criteria of various occupational diseases. Preventive measures against these diseases including accident prevention. Various legislations in relation to occupational health. Employees State Insurance Scheme.

13. HEALTH EDUCATION AND PUBLIC HEALTH LEGISLATIONS

Definition and principles of health education, Health educational methods, Audiovisual aids, The art of communication, Skills of communication, Methods of overcoming resistance in the individual, family and community, Planning a health educational programme, Use of other aids in health education, Evaluation of health educational activities, Information Education Communication Strategies. Public health legislations and need for the same. Public health law – when, why, implementation, impact, issues etc. Enforcement of various public health laws. Judiciary mechanism for ensuring proper implementation of public health laws. Scope for integrated approach for implementation of public health laws.

14. INTERNATIONAL HEALTH

The need and scope for international health measures. Functioning of various UN agencies (including WHO) playing key role in international health. Functioning of bilateral vs multilateral international donor agencies. Advice to international travellers and vaccination requirements, International health control measures e.g. quarantine, airport management etc. The management of international ports from health perspectives.

15. RESEARCH METHODOLOGY

16. Indian Medical Council (Professional Conduct ETIQUETTE and Ethics) Regulations, 2002.

17. Current Trends and Recent Advancements in the field of Community Medicine.