

Syllabus for Entrance Examination
M.Sc., in Epidemiology and Public Health

Global health:Types of health systems, Global burden of diseases and illness, Review of health systems around the world and Dimensions of comparative perspectives of health systems performance

Ecological, Genetic and immunological determinants of health :Concepts and components, Ecological, Genetic and immunological determinants, Myths and realities and Genetic counselling

Reproductive and sexual health:Reproductive and sexual health- public health perspective, Sexual health, human rights and law, Convention on the Elimination of All Forms of Discrimination Against Women and UN guidelines on reproductive health

Sexuality and sexual health and rights:Foundations in sexuality and sexual health, Construction of sexuality, Control of Sexually Transmitted Infections, HIV/AIDS and Current sexual health (e.g STIs) and reproductive health issues (infertility, abortions, maternal mortality, FGM)

Epidemiology of communicable diseases (CD):Concept, CD typology, Risk factors for CDs, Epidemiology of CDs in India, burden of CD in India, Public health interventions for CDs and Research topic, Literature review and Concept paper

Epidemiology of non-communicable diseases & injuries:Concept, NCD typology, Risk factors for NCDs, Epidemiology of NCDs in India, Epidemiology of intentional and unintentional injuries in India, Epidemiology of congenital diseases in India

Health Policy Planning :Health policy, concept, process, Institutional and non-institutional role in health policy formulation and implementation, Health policy planning -conceptual framework and Brief overview of Five year plans

Fundamentals of Toxicology and Toxic substance and its impact on human health:Principles of Toxicology, Regulatory Toxicology and risk assessment, Toxic substance-concept, typology, Carbon monoxide, Cyanide, Acetaminophen, Salicylates, Opiates, Cocaine, Ethanol, Arsenic, Lead, Mercury, Organophosphate pesticide, snake bite etc; Principles of Managing the Poisoned Patient

Vector Borne Diseases: Vector taxonomy (mosquitoes, sand flies, fleas, ticks and mites etc), Diagnosis of important vector borne diseases, Epidemiology and Climate change impact on vector borne diseases

Parasitic vector borne diseases in India: Malaria, Lymphatic filariasis, Visceral leishmaniasis

Other vector borne diseases: Dengue and Chikungunya, Japanese encephalitis, Chandipura, Kysanur Forest Diseases, Scrub typhus, Plague, Leptospirosis, Zika, Congo-crimean hemorrhagic fever, West Nile

Communication through media: Types of media, fundamentals of news media, role of news media in public health and soft skills for handling media, effective strategies for dealing with the media.

Advocacy for public health: Basic steps in dealing effectively with the communications aspect of an emergency situation in a public health setting, Communicate key scientific findings with policy makers.

Introduction to Global Health Diplomacy (GHD): Phases of GHD, global health diplomacy in public policy, Equity on health, health for all, health workers migration, human rights in GHD and medical tourism.

Cell Biology: Evolution of the cell, From molecules to first cell, From Prokaryotes to eukaryotes, From single cells to multicellular organisms, Functional differentiation of cells/cell types. Cell Membrane structure, Lipid bilayer, Membrane proteins, Membrane transport of small molecules, Membrane transport of macromolecules and particles, exocytosis and endocytosis, Cell wall and cell structure of prokaryotes and eukaryotes.

Biostatistics: Collection, Classification and Tabulation of data, Bar diagrams and Pie diagrams, Histogram, Frequency curve and frequency polygon, Ogives. Mean, median, mode, Standard deviation.