Paper II: Technical Subject

A. Introduction to public health medicine

1. Epidemiology: Propose of epidemiology, epidemiological methods, measurements of health and disease, source of information, sample and sampling techniques, clinical and field trial techniques, investigation of epidemic- communicable and non-communicable, diseases surveillance, analysis of findings, evaluation of health services.

2. Public Health: Introduction to public health, importance and primary health care system in Nepal.

3. Immunization: Types of immunity, types of vaccines, national immunization strategies in Nepal, vaccines against diphtheria, polio, tetanus, tuberculosis, measles and hepatitis B. Other vaccines such as typhoid, smallpox, rubella, meningococcal meningitis, mumps, yellow fever, cholera and hepatitis A.

4. Epidemiology, prevention and management of communicable diseases: Cholera, brucellosis, enteric fever, sexually transmitted diseases including HIV/AIDS, Meningococcal meningitis, viral hepatitis, tuberculosis, leprosy, malaria, kalaazar, shigellosis, trachoma, Japanese B encephalitis, food poisoning and scabies.

5. Epidemiology of non-communicable disease: Childhood and adult cancer, hypertension, congenital heart diseases, rheumatic heart diseases, ischaemic heart diseases, cerebrovascular accidents, chronic obstructive airways diseases, cirrhosis of liver, diabetes mellitus, gall stone, renal stone, peptic ulcer, dental caries, suicide, homicide, mental retardation, substance abuse, cataract, snake bite, trauma and disability, epilepsy, poisoning including mushroom poisoning, dropsy, lathyrism, high mountain sickness, animals and insect bites, physical and sexual abuse.

6. Family planning: Temporary and permanent methods in Nepal, side effects and complications.


8. Neonatal and pediatric health: Major neonatal problems and their management, breastfeeding and supplementary feeding, child health in community, well baby clinic, child abuse.


11. Health and nutrition: Concept of nutritional disorders, prevalence of nutritional disorders, prevention and management of macro and micro nutrient disorders, effects of obesity on health.


13. Environmental health
   13.2. Sanitation: Waster disposal including medical waste disposal.
   13.3. Food hygiene
   13.4. Control of vectors and rodents


15. Disaster management: Concept, types prevention and management.
16. **Aviation and health**: Effects of aviation on health
17. **Bio terrorism**: Potential agents and diseases produced and post exposure prophylaxis

B. **Health Program Management and population science**

1. **Family Health**
   1.1. Family planning
   1.2. Safe Motherhood
   1.3. Volunteer Mobilization (FCHV)
   1.4. PHC outreach clinic

2. **Child Health**
   2.1. Expanded program in Immunization and cold chain maintenance
   2.2. Integrated Management of childhood illnesses
   2.3. Polio Eradication
   2.4. Neonatal Tetanus Elimination
   2.5. Nutritional Programs

3. **Epidemiology and disease control**
   3.1. Outbreak response and reporting system
   3.2. Vector Borne Diseases
      3.2.1. Malaria
      3.2.2. Kalazar
      3.2.3. Japanese Encephalitis and DF/DHF
   3.3. Dog Bite – Rabies
   3.4. Snake bite
   3.5. Arsenic Poisoning
   3.6. Disaster Management
   3.7. Non-communicable diseases
   3.8. Mental Health
   3.9. Drug Addiction
   3.10. Prevention of Blindness and Trachoma Prevention Program
   3.11. Food Safety
   3.12. Research and priority research
   3.13. HMIS
   3.14. Hospital Management
   3.15. Trachoma Eradication
   3.16. Water supply and sanitation
   3.17. Community based rehabilitation

4. **Tuberculosis, Leprosy, HIV/AIDS**
   4.1. National Tuberculosis, control program and management of tuberculosis cases
   4.2. National Leprosy elimination program and management of leprosy cases
   4.3. HIV/AIDS program and management of STD and HIV/AIDS.
5. Logistic supply program
   5.1. Commodity supply
   5.2. Community drug program

6. Health Care Management
   6.1. Quality of Health care
   6.2. Referral system
   6.3. I/NGO activities in Health in Nepal
   6.4. Health planning at district

7. Population
   7.1. National population policy
   7.2. Population information collection methods
   7.3. Indicators of morbidity, mortality, fertility and life expectancy