

Paper II: Technical Subject

1. Diseases in Tropics

- 1.1 Food - and Water - borne Diseases: Food and water-borne gastrointestinal diseases caused by bacteria, viruses, protozoa: life-cycle; pathogenesis; pathology; clinical manifestations; diagnosis; treatment; prevention and control
- 1.2 Soil - transmitted Helminthiasis : Soil-transmitted helminthes: life-cycle; pathogenesis; pathology; clinical manifestations; diagnosis; treatment; prevention and control, including zoonotic helminthiasis(dogs & cats)
- 1.3 Food - and Water - borne Diseases (Tissue Parasites) : Water-borne extra-gastrointestinal parasitic diseases; pathogens; intermediate hosts; life-cycle; pathogenesis; pathology; clinical manifestation; diagnosis; treatment; prevention and control. Schistosomiasis, Guinea Worm
- 1.4 Other Tissue Parasites: Trematodes and Tapeworms - pathogens; life-cycle; pathogenesis; pathology; clinical manifestation; diagnosis; treatment; prevention and control
- 1.5 Mosquito-borne Diseases : Mosquito-borne diseases such as malaria, dengue Japanese encephalitis and lymphatic filariasis; Chikungunya; Zika Virus Disease(ZVD) epidemiology; pathogens; mosquito vectors; life cycle, pathogenesis; pathology; clinical manifestations; management; prevention and control
- 1.6 Non-mosquito Vector-borne Diseases and Zoonoses : Non-mosquito vector-borne diseases and zoonoses with details of pathogens, vectors, life cycles, clinical manifestations, management, prevention and control of diseases - Kala -azar including cutaneous forms, Trypanosomiasis and Chaga"s disease, Onchocerciasis and Trachoma; Typhus, Plague, Hanta virus, etc.
- 1.7 Ectoparasites and Others: Scabies, Myiasis, louse infestations - pathogens; life-cycle; pathogenesis; pathology; clinical manifestation; diagnosis; treatment; prevention and control
- 1.8 Neglected Tropical Diseases
- 1.9 Genetic Diseases: Sickle Cell, G6PD deficiency
- 1.10 Zoonosis-Anthrax, Brucellosis, Leptospirosis, Cysticercosis, Hydatidcyst, Trichinellosis

2. Medical Problems in the Tropics

- 2.1 Common problems and diseases in tropical region: nutritional deficiency disorders; liver diseases; infectious diseases including respiratory (TB, Community Acquired pneumonia, atypical pneumonia; Neurological diseases (Meningitis, encephalitis),tropical cutaneous diseases and tropical ulcer; endocrine disorders; treatment of diseases; prevention and vaccination
- 2.2 HIV-AIDS: epidemiology, pathogenesis; pathology; clinical manifestations; diagnosis; management; National HIV/AIDS strategy for prevention and control; Drug resistance management

- 2.3 Mycology: Common fungal diseases in tropics and systemic mycosis - epidemiology, pathogenesis; pathology; clinical manifestations; diagnosis; treatment; prevention
 - 2.4 Epidemiology, Clinical features, Diagnosis and management, Control of Communicable Diseases and Vaccine preventable diseases
 - 2.5 Tropical Environmental Health – heat induced illnesses and cold induced illnesses - heat exhaustion, heat stroke; frost bite, etc.
 - 2.6 Sexually Transmitted Infections – epidemiology, pathogenesis; pathology; clinical manifestations; diagnosis; treatment; prevention
 - 2.7 Animal & Human bites: Rabies, Snake bite, Scorpions, Rat bite fever, Cat scratch disease, One world one health Strategy
 - 2.8 Antibiotic Drug Resistance and Malaria drug therapeutic and Resistance Study
 - 2.9 Updates on latest national treatment guidelines and protocols including national elimination programmes in communicable diseases – malaria, kala-azar, Neglected Tropical Diseases, etc.
 - 2.10 GIS (Geographical Information System) in tropical diseases
- 3. Viral diseases**
- 3.1 **Introduction of viral diseases**
 - 3.1.1 General characteristic, replication, genetic, epidemiology, pathogenesis of viruses
 - 3.1.2 Classification of viruses
 - 3.1.3 Laboratory diagnosis and use of molecular tools in viral diseases
 - 3.1.4 Principles of treatment of viral diseases
 - 3.1.5 Antiviral therapy
 - 3.1.6 Vaccinology
 - 3.1.7 Emerging diseases: Novel viruses including SARS, MERS, Ebola virus, Nipha virus
 - 3.2 **Infection**
 - 3.2.1 Basic of transmission of viral diseases
 - 3.2.2 Major manifestations of infections in viral diseases including a vian influenza and others
 - 3.2.3 Diseases due to viruses
 - 3.2.4 Principles of management, including antiviral agents and prevention of infection
- 4. Travel Medicine:**
- 4.1 Common problems and diseases in travelers: pre-travelling and post-travelling screening, counseling, prevention, management and vaccination
 - 4.2 Pre-travel counseling, travel-related diseases prevention, travelers' malaria, travelers' diarrhoea, water purification for travelers, international health control, underwater hazard, vaccination care of returned traveler
 - 4.3 Climate change and emergence of and re-emergence of infections and tropical diseases
 - 4.4 Global health and International Health Regulation (IHR)

5. Others:

- 5.1 Gas gangrene
- 5.2 Tropical Sprue
- 5.3 Nephrotic syndrome
- 5.4 Acute and Chronic Renal Failure
- 5.5 Pulmonary Infiltrates and Eosinophilia including tropical Eosinophilia

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