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 Helminthiases: Soil-transmitted helminthes: life-cycle; pathogenesis; pathology; clinical manifestations; diagnosis; treatment; prevention and control, including zoonotic helminthiases (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 Taptworms - 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; Chikuguniya; 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 Chag"s disease, Onchoceriasis 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 antiviralagentsandpreventionofinfection

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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