

UNIT-I

Normal microbial flora of human body, Host-microbe interactions. Infection and infectious process - routes of transmission of microbes in the body. Description and pathology of diseases caused by bacteria: streptococcus, Lactobacillus, Pneumococcus; staphylococcus, Enterobacteriaceae; E.coli; Salmonella; Shigella; Legionella; Klebsiella, Proteus, Vibrio cholera, Brucella, Haemophilus influenzae, Pathogenic anaerobes, Tetanus clostridia, Mycobacteria, Mycobacteria, actinomycetes, Spirochaetes, Rickettsia.

UNIT-II

Viruses; Description and pathology of diseases caused by Fox virus, Herpes virus (Chicken pox Zoster); Myxo and Paramyxoviruses, Adenovirus, other respiratory viruses, Viruses affecting nervous system, Enterovirus, reovirus, Viral hepatitis, HIV virus, Rickettsiae.

UNIT-III

Fungi: Description and pathology of diseases caused by Aspergillus; Candida. Mucormycosis, Blastomycosis, Microsporiosis. Rhinocerebral, Epidermophycosis. Antifungal agents. Protozoa: Description and pathology of diseases caused by Leishmania (Leish, L.tropica; Trypanosoma gambiense; Intestinal flagellates: Trichomonas, Giardia Entamoeba histolytica, Secondary amoebic infections - Acanthamoeba, Naegleria. Malarial parasites: Plasmodium vivax, P.falciparum, P.malariae, P.ovale, Toxoplasma, Cryptosporidium, Microsporidians Encephalitozoon, Nosema. Common Helminths: Ascaris lumbricoides, Hookworm, Pinworm, Filarial parasites.

UNIT-IV

Diagnosis of common infective syndromes and parasitic infections. Problems of drug resistance and drug sensitivity. Transmission and role of vectors-Biology of vectors 1. Mosquito. 2. Biting flies 3. Sand fly. Need and significance of epidemiological studies.

UNIT-V

Principles of chemotherapy, Mode of action of antibiotic - penicillin, streptomycin, tetracycline and chloramphenicol. Anticancer agents: interferon. Drug resistance in bacteria. Basis and principles of immunization.

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