

TUTOR IN MICROBIOLOGY

(A) GENERAL MICROBIOLOGY

1. Microbiology and Medicine
2. Morphology and a structure of bacteria
3. Growth and nutrition of bacteria
4. Classification and identification of microorganisms with special reference to bacteria.
5. Sterilization and disinfection.
6. Antimicrobial agents : mode of action against bacteria.
7. Bacterial genetics.
8. Bacterial pathogenicity : Source and spread of infection in the community.
9. Immunological principles : antigens, antibodies and antigen-antibody reaction.
10. Natural and acquired immunity.
11. Hypersensitivity and autoimmunity.
12. Viruses : structure, composition, classification.
13. Virus-cell interactions, virus genetics, antiviral agents.
14. virus infections: pathogenesis, immunity, laboratory diagnosis.

(B) SYSTEMIC MICROBIOLOGY

1. Staphylococcus
2. Streptococcus.
3. Pneumococcus.
4. Lactobacillus.
5. Bordetella.
6. Haemophilus.
7. Corynebacterium.
8. Mycobacterium tuberculosis.
9. Atypical mycobacteria Mycobacterium leprae.
10. Actinomycetes : Nocardia.
11. Neisseria.
12. salmonella.
13. Shigella.
14. Escherichia coli, Klebsiella, Proteus.
15. Vibrio : Spirillum.
16. Pseudomonas.
17. Anthrax bacillus.
18. Brucella.
19. Yersinia : Pasteurella, Francisella.
20. Bacteroides - Fusobacterium group and leptospira.
21. Clostridium : 1, Cl. Welchii
22. Clostridium : 2, Cl. tetani, Cl. botulinum, others
23. Treponema : Borrelia.
24. Leptospira.
25. Poxviruses.
26. Herpesviruses.

27. Adenoviruses.
28. Orthomyxoviruses (Influenza viruses types A, B, and C.
29. a. Paramyxoviruses & other
b. rubella, Corona, RNA viruses
30. Picornaviruses
31. Hepatitis viruses
32. Arboviruses
33. Rhabdoviruses
34. Slow and Oncogenic viruses. **HIV & AIDS**
35. Chlamydiae.
36. Rickettsiae
37. Mycoplasma
38. Pathogenic fungi
39. Protozoa.

(C) PARASITOLOGY

1. General consideration regarding nomenclature and host parasite relationship.
2. Morphological identification, mode of infection, life cycle, pathogenicity and laboratory diagnosis of disease produced by these parasites in man, e.g. protozoa including Rhizopoda. Sporozoa, Mastigophora and ciliate, Helminths including Nematodes Cystodes and Trematodes.
3. Medical entomology : arthropods transmitting infection to man e.g. housefly, louse, sandfly, tsetse fly, mosquitoes, fleas, ticks and mites, snails, cyclops, etc., with reference to their identity and diseases transmitted by them.

PRACTICALS

Practicals and demonstration in bacteriology and parasitology to cover the above subjects with special emphasis on common laboratory techniques.