

**DEPARTMENT OF MICROBIOLOGY**

**II MBBS - IIIrd TERM**

**A. LECTURES (THEORY)**

<b>Ser. No.</b>	<b>Topic</b>
<b>I</b>	<b>GENERAL MICROBIOLOGY</b>
1	Introduction to Microbiology & Historical Background
2	Classification & Morphology of Bacteria
3	Growth, Nutrition & Metabolism of Bacteria
4	Sterilisation
5	Disinfection
6	Bacterial Genetics
7	Antimicrobial Agents & Drug Resistance
8	Normal Flora
9	Infection
10	Waste Management
<b>II</b>	<b>IMMUNOLOGY</b>
1	Immunity
2	Antigen
3	Antibody
4	Structure & Function of Immune System
5	Immune Response
6	Complement System
7	Antigen Antibody Reactions 1/2
8	Antigen Antibody Reactions 2/2
9	Hypersensitivity
10	Autoimmunity & Immunodeficiency Diseases
11	Transplantation & Tumour Immunology
<b>III</b>	<b>PARASITOLOGY</b>
1	Introduction to Medical Parasitology
2	<i>E. histolytica</i>
3	Free living amoebae & flagellates
4	Malaria
5	Haemoflagellates
6	Misc. Protozoa
7	Cestodes 1/2
8	Cestodes 2/2
9	Trematodes
10	Intestinal Nematodes 1/2
11	Intestinal Nematodes 2/2
12	Tissue Nematodes 1/2
13	Tissue Nematodes 2/2

**DEPARTMENT OF MICROBIOLOGY**  
**II MBBS - IVth & Vth TERM**

**TOPICS - THEORY**

Ser. No.	Topic
<b>I</b>	<b>SYSTEMIC BACTERIOLOGY</b>
1	Staphylococcus
2	Streptococcus 1/2
3	Streptococcus 2/2
4	Neisseria
5	C. diphtheriae
6	Bacillus. Methods of Anaerobiosis & Classification. Non Sporing Anaerobes
7	Clostridium
8	Enterobacteriaceae
9	Shigella
10	Salmonella
11	Vibrio
12	Pseudomonas, Campylobacter & Helicobacter
13	Other GNB : Haemophilus, Brucella, Bordetella, Yersinia
14	Mycobacterium tuberculosis
15	Atypical Mycobacteria
16	M. leprae
17	Miscellaneous Bacteria
18	Spirochaetes
19	Actinomycetes & Mycoplasma
20	Rickettsia
21	Chlamydia
22	Bacteriology of Air, Water, Milk and Food
<b>II</b>	<b>VIROLOGY</b>
1	General Virology
2	Virus Host Interactions & Laboratory Diagnosis of Viral Infections
3	Bacteriophage
4	DNA Viruses 1/2
5	DNA Viruses 2/2
6	Orthomyxoviruses & Paramyxoviruses
7	Picornaviruses
8	Hepatitis Viruses
9	Arboviruses
10	Rhabdoviruses
11	Retroviruses
12	Slow Miscellaneous & Oncogenic Viruses
<b>III</b>	<b>Mycology</b>
1	Introduction to Mycology

2	Superficial Mycoses
3	Subcutaneous Mycoses
4	Systemic Mycoses
5	Opportunistic Fungal Infections
<b>IV</b>	<b>APPLIED MICROBIOLOGY (TUTORIALS)</b>
1	Gastrointestinal Infections
2	Upper Respiratory Tract Infections
3	Lower Respiratory Tract Infections
4	Urinary Tract Infections
5	Infections of the Central Nervous System.
6	Wound Infections and Pyogenic Infections
7	Sexually Transmitted Diseases
8	Newer Techniques in Diagnostic Microbiology
9	Nosocomial Infections
10	Entomology
11	Preventive Inoculations, Immunomodulation and Immunotherapy.
12	Pro & prebiotics
13	Emerging & reemerging infections

### **B. Seminars By Students - 4/5 Hours**

[Topics change every year]

### **C. Integrated Teaching - 8 Hours**

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**D. PRACTICALS**

<b>Ser. No.</b>	<b>TOPIC</b>
1	Laboratory Instructions & Biosafety
2	Microscope & Micrometry
3	Gram Stain
4	Hanging Drop
5	Demonstration of Spots.
6	Sterilisation & Disinfection 1/2 (Demonstration)
7	Sterilisation & Disinfection 2/2 (Demonstration)
8	Culture Media 1/2 (Demonstration)
9	Culture Media 2/2 (Demonstration)
10	Culture Methods - Aerobic & Anaerobic
11	Biochemical Reactions 1/2 (Demonstration)
12	Biochemical Reactions 2/2 (Demonstration)
13	Antibiotic Sensitivity Tests
14	Visit to Incinerator Site
15	Serological Tests for Diagnosis of Microbial Infections 1/2
16	Serological Tests for Diagnosis of Microbial Infections 2/2
17	Stool Examination (Demonstration)
18	Stool Examination (Normal Constituents)
19	Stool Examination for Cysts/Ova
20	Malaria & Leishmania - Demonstration of Slides
21	Parasitology - Demonstration of Cestodes, Trematodes
22	Parasitology - Demonstration of Nematodes



**DEPARTMENT OF MICROBIOLOGY**  
**II MBBS - IVth & Vth TERM**

**TOPICS - PRACTICALS**

1

<b>Ser. No.</b>	<b>TOPIC</b>
1	Collection , Transportation & Processing of Samples
2	Colony Morphology
3	Revision - Biochemical Reactions
4	Staphylococcus
5	Streptococci
6	Gram Negative Cocci
7	C. diphtheriae
8	Albert Stain (Demonstration)
9	Albert Stain
10	E. coli
11	Klebsiella
12	Proteus
13	Salmonella
14	Shigella
15	Pseudomonas
16	Mycobacteria (Demonstration)
17	ZN Stain (Demonstration)
18	ZN Stain
19	Candida
20	Mycology 1/2
21	Mycology 2/2
22	Mycology - Slides (Demonstration)

23	Virology - Egg Inoculation
24	Vaccines (Demonstration)
25	Laboratory Animals (Demonstration)
26	Entomology (Demonstration)
27	Bacteriology of Air (Demonstration)
28	Bacteriology of Water (Demonstration)
29	Discussion - Clinical Problems 1/2
30	Discussion - Clinical Problems 2/2
31	Revision - Media
32	Revision - Instruments
33	Revision - Slides
34	Revision - Specimens
35	Revisions - Some Important Practicals - Remaining Classes









