

**SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH**



**(A DEEMED TO BE UNIVERSITY)  
B.Sc. Allied Health Sciences Second Year Semester-IV  
September-2024 Examination  
B.Sc. Medical Laboratory Technology**

**Time : 2.30 Hrs.**

**[Max. Marks :80]**

**SUBJECT :MICROBIOLOGY-I**

**Q.P Code :J4041**

*Your answers should be specific to the questions asked.  
Draw neat labeled diagrams wherever necessary.*

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Enumerate Acid-fast bacilli. Describe the source, modes of transmission, clinical manifestations, and laboratory diagnosis of *Mycobacterium tuberculosis*.
2. Enumerate bacteria causing diarrhea. Describe the source, mode of transmission, clinical manifestations, complications and laboratory diagnosis of *Vibrio cholera*.

**SHORT ESSAY (Answer any Six)**

**6 X 5 = 30 Marks**

3. Antibiotic Sensitivity Testing
4. Describe the pathogenesis and laboratory diagnosis of Tetanus.
5. Mention the non-suppurative complications of *Streptococcus pyogenes*.
6. Describe the laboratory diagnosis of *Neisseria gonorrhoea*.
7. Describe the laboratory diagnosis of Enteric fever.
8. Describe the Toxin mediated diseases caused by *Staphylococcus aureus*.
9. Blood Culture : Conventional & Automated Testing
10. Describe the Laboratory diagnosis of Syphilis

**SHORT ANSWERS (Answer any Ten)**

**10 X 3 = 30 Marks**

11. Nagler's reaction
12. Enumerate three diseases caused by *Escherichia coli*.
13. Enumerate 3 anaerobic bacteria.
14. Enumerate three biochemical tests used in the identification of bacteria
15. Mac Fadyean's reaction
16. ASLO test : Principle & clinical significance
17. Enumerate 3 bacteria which are motile
18. What is significant bacteriuria?
19. Enumerate three pigment-producing bacteria.
20. Enumerate three Enriched media with examples.
21. Name three Spirochaetes.
22. Enumerate three bacterial vaccines.

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**B.Sc. Medical Laboratory Technology (MLT)**

**Time: 2.30 Hrs.**

**[Max. Marks: 80]**

**Subject: Microbiology-I**

**Q.P Code: K4041**

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*Draw neat labelled diagrams wherever necessary.*

**Long Essay**

**2 X 10 = 20 Marks**

1. Enumerate Gram-positive bacilli. Describe the source, mode of transmission, clinical manifestations, complications and laboratory diagnosis of *Corynebacterium diphtheriae*
2. Enumerate the agents causing Sexually Transmitted infections. Describe the laboratory diagnosis of Syphilis.

**Short Essay**

**6 X 5 = 30 Marks**

3. Describe the laboratory diagnosis of Tuberculosis.
4. Enumerate the agents causing Meningitis. Describe the laboratory diagnosis of meningococcal meningitis.
5. Describe the laboratory diagnosis of Enteric fever.
6. Describe the principle, types and applications of PCR.
7. Describe the source, modes of transmission and clinical features of *Bacillus anthracis*.
8. Enumerate Gram positive cocci. Describe the diseases caused and laboratory diagnosis of *Streptococcus pneumoniae*.

**Short Answers**

**10 X 3 = 30 Marks**

9. Enumerate three bacteria belonging to the Enterobacteriaceae family.
10. Enumerate three bacteria causing food poisoning.
11. Give examples of the bacteria producing beta hemolysis on blood agar.
12. Enumerate three bacteria causing septicemia.
13. Name three Spirochetes.
14. Enumerate three acid-fast bacilli.
15. Enumerate two Gram-negative cocci and the disease caused by them.
16. Enumerate three selective culture media and the organisms isolated.
17. Enumerate three pigment-producing bacteria.
18. What is the principle and clinical significance of ASLO titer?

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**B.Sc. Medical Laboratory Technology (MLT)**

**Time: 2.30 Hrs.**

**[Max. Marks: 80]**

**Subject: Microbiology-II**

**Q.P Code: K4042**

*Your answers should be specific to the questions asked.*

*Draw neat labelled diagrams wherever necessary.*

**Long Essay**

**2 X 10 = 20 Marks**

1. Enumerate Nematodes. Describe the pathogenesis and laboratory diagnosis of *Wuchereria bancroftii*
2. Enumerate the Cestode parasites. Describe the life cycle and laboratory diagnosis of *Taenia solium* infection.

**Short Essay**

**6 X 5 = 30 Marks**

3. Describe the clinical features and laboratory diagnosis of *Strongyloides stercoralis*
4. Describe the source, modes of transmission and laboratory diagnosis of *Toxoplasma gondii*
5. Describe the life cycle and laboratory diagnosis of *Ascaris lumbricoides*.
6. Describe the source, modes of transmission and laboratory diagnosis of Hydatid disease
7. Describe the source, modes of transmission and laboratory diagnosis of *Ancylostoma duodenale*
8. Describe the source, modes of transmission and morphological forms of *Giardia lamblia* with neat labelled diagrams

**Short Answers**

**10 X 3 = 30 Marks**

9. Mention three differences between *Plasmodium vivax* and *Plasmodium falciparum*.
10. Mention the source and mode of transmission of *Trichomonas vaginalis*
11. Enumerate three parasitic infections transmitted by vectors.
12. Advantages of thick and thin peripheral blood smear in the diagnosis of malaria.
13. Define the term Intermediate host with examples.
14. Enumerate three bile-stained eggs.
15. Draw a neat labelled diagram of trophozoite and cyst of *Entamoeba histolytica*
16. NIH swab
17. Enumerate three Trematodes
18. What are the morphological forms of parasites found in stool samples?

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**[Max. Marks: 80]**

**Subject: Microbiology-III**

**Q.P Code: K4043**

*Your answers should be specific to the questions asked.*

*Draw neat labelled diagrams wherever necessary.*

**Long Essay**

**2 X 10 = 20 Marks**

1. Mention the types of Herpes virus; describe the morphology, pathogenesis and laboratory diagnosis of Herpes simplex virus.
2. Describe the morphological characteristics, cultural characteristics, diseases caused and laboratory diagnosis of Candida albicans.

**Short Essay**

**6 X 5 = 30 Marks**

3. Describe the clinical features and laboratory diagnosis of Dengue.
4. Describe the source, modes of transmission; diseases caused and the laboratory diagnosis of Mucor mycosis.
5. Enumerate the fungal agents causing opportunistic mycosis. Describe the laboratory diagnosis of Cryptococcus neoformans
6. Describe the morphology, source, modes of transmission and laboratory diagnosis of the Influenza virus.
7. Describe the modes of transmission, morphology and laboratory diagnosis of HIV.
8. Describe the steps of viral replication.

**Short Answers**

**10 X 3 = 30 Marks**

9. Enumerate three genera of Dermatophytes
10. Enumerate three diseases caused by Aspergillus species.
11. SDA: its composition and uses
12. Mention the source and modes of transmission of the Human Papilloma Virus.
13. Mention the morphological characteristics of Penicillium species.
14. Enumerate three fungi causing Systemic Mycosis.
15. Enumerate three RNA viruses.
16. Enumerate three viruses causing congenital infections.
17. Enumerate three dimorphic fungi.
18. Enumerate three microscopic methods for the identification of Fungi.

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