



SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

B.Sc. Allied Health Sciences Second Year (Semester-IV)

October 2023 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 Mycobacteria of clinical importance. Describe the source, mode of transmission, clinical manifestations, and laboratory diagnosis of *Mycobacterium tuberculosis*.
2. Enumerate Gram positive cocci. Describe the morphology, cultural characteristics, clinical manifestations and laboratory diagnosis of *Staphylococcus aureus*

SHORT ESSAYS (ANSWER ANY SIX)

6 X 5 =30Marks

3. Describe the Laboratory diagnosis of Cholera
4. Blood Culture : Conventional & Automated Testing
5. Describe the Laboratory diagnosis of Meningitis
6. Describe the Laboratory diagnosis of Syphilis
7. Widal test: principle & interpretation
8. Describe the non suppurative complications of *Streptococcus pyogenes*
9. Malignant pustule :agent, pathogenesis & laboratory diagnosis
10. Describe the Laboratory diagnosis of urinary tract infections

SHORT ANSWERS (ANSWER ANY TEN)

10 X 3 = 30Marks

11. Quellung test
12. Satellitism
13. Enumerate three bacteria belonging to Enterobacteriaceae family
14. Pigments produced by *Pseudomonas aeruginosa*
15. Enumerate three Clostridial species
16. Enumerate 3 non sporing anaerobic bacteria
17. Enumerate 3 bacteria causing Endocarditis
18. Draw a neat labelled diagram of Albert stain of throat swab smear from patient with diphtheria
19. Enumerate 3 bacteria causing sexually transmitted diseases
20. Enumerate 3 bacterial vaccines
21. Transport media with examples
22. Naegler reaction



**B.Sc. Allied Health Sciences Second Year (Semester-IV)
October 2023 Examination**

B.Sc. Medical Laboratory Technology

Time : 2.30 Hrs.

[Max. Marks : 80]

SUBJECT : MICROBIOLOGY-III

Q.P Code : J4043

Your answers should be specific to the questions asked.

Draw neat labeled 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, clinical features and laboratory diagnosis of Candidia albicans.

SHORT ESSAY (Answer any Six)

6 X 5 = 30 Marks

3. Classify the fungal agents based on Morphology and diseases caused with examples.
4. Morphology, laboratory diagnosis and prophylaxis of Influenza virus.
5. Laboratory diagnosis of Aspergillosis.
6. Describe the Modes of transmission and seromarkers of hepatitis B.
7. Describe the steps of viral replication.
8. Laboratory diagnosis and prophylaxis of Rabies.
9. Clinical features, laboratory diagnosis and prophylaxis of Japanese encephalitis.
10. Describe the morphology, clinical features and laboratory diagnosis of Cryptococcus neoformans.

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

11. MMR vaccine.
12. List three viruses causing malignancy.
13. Morphological and cultural characteristics of Mucor and Rhizopus.
14. List three RNA virus.
15. List three agents causing Mycetoma.
16. Draw a neat labelled diagram of HIV.
17. Mention the source of infection and mode of transmission in polio.
18. Name three viral diseases transmitted by mosquito bite.
19. List three viruses cultivated in embryonated hen's egg.
20. Mention three anatomical sites affected by Dermatophytes.
21. List three viruses causing Hepatitis.
22. Sabourauds dextrose agar.

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B.Sc. Allied Health Sciences Second Year (Semester- IV)

October – 2023 Examination

B.Sc. Medical Laboratory Technology (MLT)

Time: 2.30 Hrs.

[Max. Marks: 80]

Subject: Microbiology-I

Q.P Code: K4041

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

Long Essay

2 X 10 = 20 Marks

1. Enumerate the agents causing Sexually Transmitted infections. Describe the laboratory diagnosis of Syphilis.
2. Enumerate Gram positive cocci. Describe the morphology, cultural characteristics, and clinical manifestations of *Staphylococcus aureus*.

Short Essay

6 X 5 = 30 Marks

3. Describe the Toxigenicity tests for *Corynebacterium diphtheria*.
4. Describe the laboratory tests for urinary tract infection.
5. Describe the principle, types and applications of PCR.
6. Describe the laboratory diagnosis of Tuberculosis.
7. Mention the causative agent and describe the pathogenesis and laboratory diagnosis of Malignant pustule.
8. Enumerate the agent's causing dysentery. Describe the pathogenesis and laboratory diagnosis of Shigellosis.

Short Answers

10 X 3 = 30 Marks

9. What is the Quellung test?
10. Enumerate three bacteria causing diarrhoea.
11. Enumerate three selective media.
12. Enumerate three bacterial zoonotic diseases.
13. Enumerate the infections caused by *Escherichia coli*.
14. Enumerate three anaerobic bacteria.
15. Enumerate three bacteria producing beta hemolysis on blood agar.
16. Enumerate three bacterial vaccines.
17. List three pigments produced by *Pseudomonas*.
18. Enumerate three agents causing meningitis.

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B.Sc. Allied Health Sciences Second Year (Semester- IV)

October 2023 Examination

B.Sc. Medical Laboratory Technology (MLT)

Time: 2.30 Hrs.

[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. Describe the source, mode of transmission, pathogenesis and laboratory diagnosis of Dengue.
2. List the types of Hepatitis viruses. Describe the morphology, modes of transmission, laboratory diagnosis and prophylaxis of Hepatitis B.

Short Essay

6 X 5 = 30 Marks

3. Describe the laboratory diagnosis of fungal infections.
4. Enumerate the agents causing subcutaneous Mycosis. Describe the source, modes of transmission and clinical features of Mucor mycosis.
5. Enumerate the agents causing Opportunistic Mycosis. Describe the various diseases caused by Candida albicans.
6. Describe the Morphology, modes of transmission and clinical features of HIV.
7. Describe the morphological and cultural characteristics of Cryptococcus neoformans.
8. Mention three genera and the organs affected by Dermatophytes. Describe the clinical features of dermatophytosis.

Short Answers

10 X 3 = 30 Marks

9. List three types of cell culture
10. Enumerate three viral infections transmitted by inhalation.
11. Draw a neat labelled diagram of the Influenza virus.
12. Enumerate three RNA viruses.
13. Name three Arboviral infections seen in India.
14. Draw a neat labelled diagram of Bacteriophage.
15. Draw a neat labelled diagram of a microscopic picture of Penicillium species.
16. Enumerate the source and mode of transmission in Rabies.
17. List three viruses causing congenital infections.
18. List three fungal agents causing Systemic Mycosis.

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