



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

**(A DEEMED TO BE UNIVERSITY)**

**B.Sc. Allied Health Sciences Second Year Semester-IV**

**March 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 Gram positive cocci. Describe the morphology, cultural characteristics and clinical manifestations of *Staphylococcus aureus*.
2. Enumerate the Clostridia of medical importance. Describe the source, modes of transmission, pathogenesis and laboratory diagnosis of gas gangrene.

**SHORT ESSAY (Answer any Six)**

**6 X 5 = 30 Marks**

3. Describe the laboratory diagnosis of Syphilis.
4. Antibiotic Sensitivity Testing
5. Describe the principle and interpretation of the Widal test.
6. Describe the source, modes of transmission and clinical features of *Bacillus anthracis*.
7. Bacillary dysentery : causative agents & Laboratory diagnosis
8. Laboratory diagnosis of urinary tract infections
9. Describe the pathogenesis and laboratory diagnosis of Cholera.
10. Describe the principle, types and applications of PCR.

**SHORT ANSWERS (Answer any Ten)**

**10 X 3 = 30 Marks**

11. Mantoux test; method, uses and interpretation.
12. Enumerate the principle and clinical significance of the CRP test.
13. Enumerate three diseases caused by *Escherichia coli*.
14. Enumerate three Gram-negative bacilli-producing non-lactose fermenting type colonies on MacConkey agar.
15. Enumerate three Gram-positive bacilli.
16. Enumerate three bacteria causing zoonotic infection.
17. Quellung Reaction
18. Enumerate 3 bacteria producing pigments
19. Name three types of culture media.
20. Enumerate three acid-fast bacilli.
21. Enumerate three catalase-negative bacteria.
22. What is swarming, and mention the bacteria producing swarming?



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**SUBJECT : MICROBIOLOGY-II**

**Q.P Code : J4042**

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

*Draw neat labeled diagrams wherever necessary*

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Enumerate the parasites causing diarrhoea. Discuss the life cycle and laboratory diagnosis of *Entamoeba histolytica*
2. Enumerate Cestodes of medical importance. Describe the lifecycle and laboratory diagnosis of *Taenia solium*.

**SHORT ESSAY (Answer any Six)**

**6 X 5 = 30 Marks**

3. Describe the life cycle of *Trichomonas vaginalis*
4. Discuss the stool concentration techniques.
5. Describe the lifecycle of a Hookworm. Add a note on its laboratory diagnosis.
6. Describe the life cycle and laboratory diagnosis of Malaria.
7. Describe the Laboratory diagnosis of Schistosomiasis.
8. List the morphological differences between cestode, trematode and nematode with examples
9. Describe the life cycle of *Wucheraria bancrofti*.
10. Describe the life cycle of Round worm

**SHORT ANSWERS (Answer any Ten)**

**10 X 3 = 30 Marks**

11. Define intermediate host with three examples
12. Name three parasites in large intestine
13. Name 3 parasites which is transmitted through faecoral route
14. Enumerate three opportunistic parasites in AIDS patients.
15. Name three insect vectors in the transmission of parasitic infections.
16. Name three free living amoebae.
17. Draw a neat labeled diagram of egg of *H. nana*.
18. Enumerate three protozoa of medical importance
19. NIH swab
20. Enumerate three non-bile stained eggs.
21. List three differences between ancylostoma and necator
22. Name 3 parasites found in peripheral blood smear.



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**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. Describe the morphology, pathogenesis and laboratory diagnosis of Rabies virus infection. Add a note on prophylaxis
2. Classify fungal infections .describe the morphological characteristics and laboratory diagnosis of agents causing mycetoma

**SHORT ESSAY (Answer any Six)**

**6 X 5 = 30 Marks**

3. Enumerate DNA viruses; add a note on prophylaxis of Hepatitis B.
4. Describe the sources, clinical lesions and laboratory diagnosis of Dermatophytes
5. Write a note on lactophenol cotton blue wet mount preparation
6. Describe the source and modes of transmission of Polio. Add a note on its prophylaxis.
7. Describe the source, modes of transmission and laboratory diagnosis of Mucor mycosis
8. Tissue culture technique
9. Discuss the laboratory diagnosis of HIV
10. Discuss the clinical features and laboratory diagnosis of *Candida albicans*.

**SHORT ANSWERS (Answer any Ten)**

**10 X 3 = 30 Marks**

11. List three RNA virus.
12. Morphological characteristics of Penicillium.
13. Prophylaxis of Mumps.
14. Composition of SDA.
15. List three viruses causing Malignancy.
16. Describe the term antigenic shift
17. Draw a neat labelled diagram of HIV.
18. List three infections caused by adenoviruses
19. List three infections caused by Herpes simplex virus.
20. List three oppoutunistic fungal infections
21. List three types of fungi
22. List three virus transmitted by droplet infection.

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