

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

**(A DEEMED TO BE UNIVERSITY)**

**M.B.B.S Phase-II Degree examination JULY 2022**

**Time:3 hours**

**Max Marks:100**

**MICROBIOLOGY- PAPER 1**

*Your answer should be specific to the question asked*

*Draw neat and labeled diagrams wherever necessary*

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Define and classify immunity. Describe the mechanisms of innate immunity. (1+4+5)
2. Name the pyogenic cocci. Describe the clinical features and the laboratory diagnosis of Staphylococcus aureus infections. (2+4+4).

**SHORT ESSAY**

**10 X 5 = 50 Marks**

3. Describe the principle and applications of Autoclave with a neat diagram. (1+2+2)
4. Describe the pathogenesis and laboratory diagnosis of Acute Rheumatic fever. (2+3)
5. Describe the classical pathway of complement.
6. Describe the pathogenesis and laboratory diagnosis of anthrax. (2+3)
7. Describe the pathogenesis and laboratory diagnosis of Diphtheria.
8. Describe the laboratory diagnosis of Cholera
9. Mention the types, mechanism, methods of detection of drug resistant tuberculosis. (1+2+2)
10. Describe the diseases caused and methods of detection of Helicobacter pylori. (2+3)
11. Describe the Griffith experiment of transformation.
12. Describe the laboratory diagnosis of Syphilis

**SHORT ANSWERS**

**10 X 3 = 30 Marks**

13. Enumerate THREE bacteria causing pyogenic meningitis.
14. Name the causative agents, lesion and prevention of Wool sorters disease.(1+1+1)
15. How do you disinfect bed pans, thermometers, and cystoscopes.
16. Enumerate three complications of Cholera
17. Enumerate THREE bacteria causing diarrhoea
18. List the infections caused by coagulase negative Staphylococcus aureus
19. What are Biological false positive (BFP) reactions in syphilis. List three clinical conditions associated with it.
20. Typhoid carriers and their significance.
21. List the differences between active and passive immunity
22. Draw a neat labelled diagram of Albert stain of throat swab smear from diphtheria patient.



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**MICROBIOLOGY- PAPER 2**

*Your answer should be specific to the question asked  
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**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Describe the life cycle of Plasmodium falciparum. Describe the pathogenesis and laboratory diagnosis of falciparum malaria. (4+4+2)
2. List the human Herpes viruses and the diseases caused by them. Describe the pathogenesis of Herpes zoster.(3+3+4)

**SHORT ESSAY**

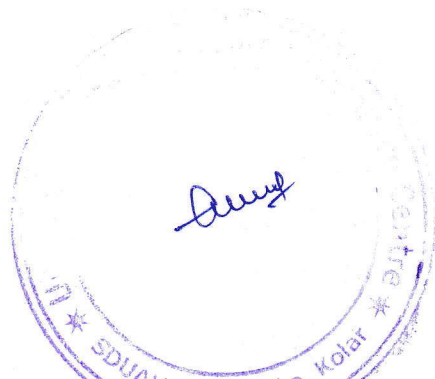
**10 X 5 = 50 Marks**

3. Describe the agents, microscopic morphology and treatment of Zygomycoses. (2+2+1)
4. Describe the mode of transmission, pathogenesis and complications of Dengue fever. (1+2+2)
5. Describe the agent, it's transmission and lab diagnosis of leishmaniasis. (1+1+3)
6. Describe the laboratory diagnosis of Human Immunodeficiency Virus (HIV) infection.
7. Describe the laboratory diagnosis of fungal infections.
8. Describe the distribution and laboratory diagnosis of Extra- intestinal Amoebiasis. (2+3)
9. Describe the pathogenesis and laboratory diagnosis of Cryptococcosis (3+2)
10. List the differences between live and killed poliomyelitis vaccines
11. Describe the pathogenesis and lab diagnosis of Hookworm. (3+2)
12. Describe the pathogenesis and laboratory diagnosis of Dermatophytosis(2.5+2.5)

**SHORT ANSWERS**

**10 X 3 = 30 Marks**

13. Enumerate three Mosquito borne diseases.
14. Name the mode of transmission and clinical manifestations of Trichomonas Vaginalis.
15. Enumerate THREE parasitic Zoonotic disease.
16. Define nosocomial infections. Name four types of Nosocomial infection.
17. Enumerate three opportunistic fungal infections in AIDS
18. Draw a neat labeled diagram of embryonated egg
19. What is the pathogenesis in Giardia lamblia infection.
20. Enumerate THREE parasites causing CNS infection.
21. Name 4 fungal species causing subcutaneous infections
22. Enumerate any three measures to prevent the emergence of antibiotic resistance



# Sri Devaraj Urs Academy of Higher Education and Research

(Deemed to be University)

MBBS PHASE – II EXAMINATION JULY 2022

Time : 150 Minutes

Max Marks : 80 Marks

Date : 18-07-2022

MICROBIOLOGY PAPER – I QP CODE:- C2051

*Your answer should be specific to the question asked  
Draw neat labeled diagrams wherever necessary*

## Long Essay

10 × 2 = 20 Marks

1. Enumerate the bacterial agents causing pyrexia of unknown origin. Describe the pathogenesis and laboratory diagnosis of Enteric fever. (2+4+4).
2. List the human Herpes viruses and the diseases caused by them. Describe the pathogenesis of Herpes zoster. (3+3+4)

## Short Essay

5 × 12 = 60 Marks

3. Describe the principle and applications of Polymerase Chain Reaction. (3+2)
4. Describe the principle and applications of Autoclave (3+2)
5. Describe the mode of production and uses of Monoclonal antibodies. (3+2)
6. What is Acquired immunity? Enumerate the types with examples for each. (1+2+2)
7. Describe the types and applications of ELISA (2.5+2.5)
8. Describe the pathogenesis and clinical features of Acute Rheumatic fever
9. Describe the pathogenesis and laboratory diagnosis of filariasis. (3+2)
10. Describe the morphology, modes of transmission of Human Immunodeficiency Virus (HIV). (2+3)
11. A 40 year old man developed severe watery diarrhea and vomiting. The rice watery stool was sent for bacteriological analysis. What is the probable etiology and describe the pathogenesis (1+4)
12. Describe the pathogenesis, clinical features and treatment of Shigellosis (2+2+1)
13. Discuss the laboratory diagnosis of tetanus
14. Describe the role of health care professionals in maintaining the confidentiality of lab reports?





# Sri Devaraj Urs Academy of Higher Education and Research (Deemed to be University)

MBBS PHASE – II EXAMINATION JULY 2022  
Summative Assessment

Time : 150 Minutes

MaxMarks : 80 Marks

Date : 18-07-2022

## MICROBIOLOGY PAPER – I QP CODE:- C2051

*Your answer should be specific to the question asked  
Draw neat labeled diagrams wherever necessary*

### Long Essay

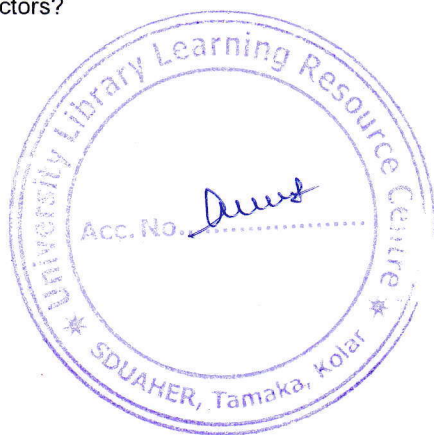
10 × 2 = 20 Marks

1. Enumerate the bacterial agents causing pyrexia of unknown origin .Describe the pathogenesis and laboratory diagnosis of Enteric fever. (2+4+4).
2. List the human Herpes viruses and the diseases caused by them. Describe the pathogenesis of Herpes zoster.(3+3+4)

### Short Essay

5 × 12 = 60 Marks

3. Describe the principle and applications of Polymerase Chain Reaction. (3+2)
4. Describe the principle and applications of Autoclave (3+2)
5. Describe the mode of production and uses of Monoclonal antibodies . (3+2)
6. What is Acquired immunity? Enumerate the types with examples for each. (1+2+2)
7. Describe the types and applications of ELISA (2.5+2.5)
8. Describe the clinical features of Acute Rheumatic fever
9. Describe the pathogenesis and laboratory diagnosis of occult filariasis. (3+2)
10. Describe the morphology, modes of transmission of Human Immunodeficiency Virus (HIV). (2+3)
11. A 40 year old man developed severe watery diarrhea and vomiting. The rice watery stool was sent for bacteriological analysis. What is the probable etiology and describe the pathogenesis (1+4)
12. Describe the pathogenesis, clinical features and treatment of Shigellosis (2+2+1)
13. Discuss the laboratory diagnosis of tetanus
14. What are the implications for doctors?



# Sri Devaraj Urs Academy of Higher Education and Research

(Deemed to be University)

MBBS PHASE – II EXAMINATION JULY 2022

Time : 150 Minutes

Max Marks : 80 Marks

Date : 19-07-2022

## MICROBIOLOGY PAPER – II QP CODE:- C2052

*Your answer should be specific to the question asked*

*Draw neat labeled diagrams wherever necessary*

### Long Essay

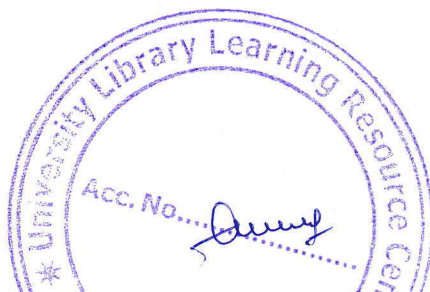
**10 × 2 = 20 Marks**

1. The CSF analysis of a patient with meningitis is as follows: Cell count 400 cells/mm<sup>3</sup> predominantly polymorphonuclear cells. Gram stain showed pus cells with Gram positive lanceolate shaped cocci in pairs. Colonies on Blood agar showed alpha haemolysis.
  - a) What is the most likely causative agent,
  - b) Enumerate four most common bacteria causing pyogenic meningitis,
  - c) Describe the pathogenesis of the above clinical condition
  - d) How do you confirm the isolate in the lab? (1+2+3+4)
2. Enumerate the bacterial causes of Zoonotic diseases. Describe the pathogenesis, clinical features and laboratory diagnosis of Anthrax (2+3+2+3)

### Short Essay

**5 × 12 = 60 Marks**

3. Describe the pathogenesis of Herpes Encephalitis
4. Describe the differential diagnosis, pathogenesis and laboratory diagnosis of Diphtheria. (1+2+2)
5. Describe the pathogenesis and laboratory diagnosis of Pneumococcal pneumoniae (2.5+2.5)
6. Describe the pathogenesis and laboratory diagnosis of Influenza (2+3)
7. Describe the clinical features and laboratory diagnosis of Dengue Fever. (2+3).
8. Describe the laboratory diagnosis of Mycobacterium tuberculosis. (2+3)
9. A 30 year old man presented with a painless, indurated circumscribed, superficially ulcerated lesion on the genitalia
  - a. What is the probable diagnosis?
  - b. Enumerate the laboratory diagnosis of above condition. (1+4)
10. Describe the clinical manifestations and laboratory diagnosis of Rabies. (3+2)
11. Enumerate the causative agents, clinical manifestations. lab diagnosis of bacterial vaginosis. (1+2+2)
12. Define and classify Nosocomial Infections (1+4)
13. Describe the lab diagnosis Enteric Fever
14. Describe the clinical manifestations and complications of SARS COV - 2 infection. (3+2)



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**MICROBIOLOGY- PAPER 1**

*Your answer should be specific to the question asked  
Draw neat and labeled diagrams wherever necessary*

**LONG ESSAY ( Answer any 2 )**

**2 X 10 = 20 Marks**

1. Enumerate antigen antibody reactions. Describe the principle, and diagnostic applications of agglutination reactions with suitable examples. (4+3+3)
2. Name the pyogenic cocci. Describe the clinical features and the laboratory diagnosis of Staphylococcus aureus infections.(2+4+4).
3. Enumerate 6 Clostridial species of medical importance. Describe the pathological events leading to gas gangrene. Outline the treatment for gas gangrene (3+4+3).

**SHORT ESSAY ( Answer any 10 )**

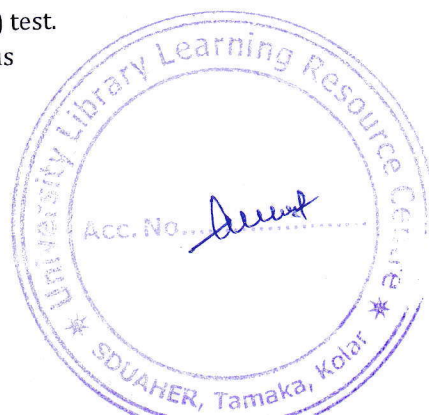
**10 X 5 = 50 Marks**

4. Describe the lesion, modes of transmission and laboratory diagnosis Cutaneous anthrax. (1+1+3)
5. Describe the Bacterial flagella with reference to structure, types and functions. (2+1+2)
6. Monoclonal antibodies: definition, production and clinical applications
7. Describe the pathogenesis and laboratory diagnosis of Acute Rheumatic fever
8. Describe the laboratory diagnosis of syphilis.
9. Mention the types, mechanism, methods of detection of drug resistant tuberculosis. (1+2+2)
10. A 40 year old man developed severe watery diarrhea and vomiting. The rice watery stool was sent for bacteriological analysis. What is the probable etiology and describe the pathogenesis (1+4)
11. Describe the mechanisms of innate immunity.
12. Describe conjugation with a neat diagram.
13. Describe the treatment of diphtheria and its Prophylaxis (3+2)
14. Describe the virulence factors and diseases caused by Helicobacter pylori(3+2)
15. Typhoid carriers: Describe the types, methods of detection and treatment.(2+2+1)

**SHORT ANSWERS ( No choices )**

**10 X 3 = 30 Marks**

16. Name three Acid fast microorganisms and their staining modifications
17. Give three examples for Halophilic vibrios.
18. List any THREE bacteria causing meningitis.
19. List THREE complications of diphtheria
20. Mention the different types of grafts
21. Satellitism.
22. List the infections caused by Staphylococcus aureus
23. Draw a neat labelled diagram of IgA
24. Christie Atkins Munch Peterson (CAMP) test.
25. What is the pathogenesis of Ghons focus





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**MICROBIOLOGY- PAPER 2**

*Your answer should be specific to the question asked*

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**LONG ESSAY ( Answer any 2 )**

**2 X 10 = 20 Marks**

1. Enumerate the Nematodes of medical importance. Describe the life cycle, pathogenesis and lab diagnosis of Ancylostoma Duodenale ( 3+2+2+3)
2. Describe the life cycle of Plasmodium vivax in man and mosquito. Describe the laboratory diagnosis of vivax malaria. (5+5)
3. Describe the morphology, pathogenesis, and immunoprophylaxis of Rabies.(2+3+5)

**SHORT ESSAY ( Answer any 10 )**

**10 X 5 = 50 Marks**

4. Describe the clinical manifestations and lab diagnosis of Candidiasis.
5. Describe the lab diagnosis of HIV infection.
6. Describe the pathogenesis and laboratory diagnosis of Giardia lamblia.(3+2)
7. List the differences between live and killed poliomyelitis vaccines
8. Describe the aetiology, predisposing factors and clinical manifestations of Sporotrichosis. (1+2+2)
9. Describe clinical manifestation and lab diagnosis of Dermatophytosis (3+2)
10. Discuss the pathogenesis and lab diagnosis of Dengue fever (3+2)
11. Describe the pathogenesis and laboratory diagnosis of Cryptococcosis. (3+2)
12. Describe the agent, it's transmission and clinical manifestations of leishmaniasis. (1+1+3)
13. Describe the mode of transmission, pathogenesis and complications of Influenza virus. (1+2+2)
14. Describe the pathogenesis and lab diagnosis of Trichomonas Vaginalis (3+2)
15. Describe the clinical manifestations and laboratory diagnosis of Chikungunya (2+3)

**SHORT ANSWERS ( No choices )**

**10 X 3 = 30 Marks**

16. Name any three viruses transmitted by Aedes aegypti.
17. Name three zoonotic diseases caused by parasites
18. Enumerate the agents causing Subcutaneous mycoses.
19. Name six water borne pathogens.
20. Mention the nature, schedule and route of administration of MMR vaccine.
21. What are mycotoxins? Name two fungi producing them. (1+2)
22. Draw a neat labelled diagram of Aspergillus species.
23. Name any three antibiotic susceptibility testing methods.
24. Define window period in HIV and its clinical significance.
25. Pulse Polio immunization.

