

SRI DEVRAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)

M.B.B.S Phase-II Degree Examination JANUARY 2019

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. Enumerate the agents causing Sexually Transmitted infections . Describe the laboratory diagnosis of syphilis (4+6).
2. Name types of delayed hypersensitivity reaction. Describe their mechanism and the clinical relevance. (2+6+2).

SHORT ESSAY

10 X 5 = 50 Marks

3. Mention the habitat, methods of detection and clinical importance of Enterococcus species(1+2+2)
4. Describe the pathogenesis, clinical manifestations of Toxic shock syndrome. (3+2)
5. Describe the types, clinical manifestations and pathogenesis of botulism. (1+2+2)
6. Enumerate Aldehydes used in disinfection. Describe the mechanism of action and uses of Aldehydes. (1+2+2)
7. Describe the determinants of antigenicity.
8. Describe laboratory diagnosis of meningococcal meningitis
9. Describe the mechanisms of innate immunity.
10. Describe the laboratory diagnosis of H. influenzae meningitis
11. Describe the Bacterial capsule in relation to its chemical nature, role in pathogenicity and methods of demonstration. (1+2+2)
12. Describe Heterophile agglutination reaction and give examples. (3+2)

SHORT ANSWERS

10 X 3 = 30 Marks

13. What is the pathogenesis of primary complex of pulmonary tuberculosis.
14. What is Quellung test?
15. Enumerate 3 bacteria causing Urinary tract infection.
16. Name three Enrichment media with examples
17. Draw the diagram of HLA complex loci on chromosome
18. Enumerate three types of PCR
19. Name 3 autoimmune diseases and their antibodies
20. List the infections caused by Staphylococcus aureus
21. List three contributions of Louis Pasteur
22. List 3 complications of diphtheria

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MICROBIOLOGY Paper 2

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

LONG ESSAY

2 X 10 = 20 Marks

1. Enumerate any four protozoa causing gastroenteritis. Describe the pathogenesis and laboratory diagnosis of extra intestinal amoebiasis. (2+4+4)
2. Enumerate the viruses causing Hepatitis. Name the markers of Hepatitis B virus infection and indicate their interpretation. How is Hepatitis B virus infection prevented? (2+2+3+3)

SHORT ESSAY

10 X 5 = 50 Marks

3. Describe the lifecycle and pathogenesis by *Diphyllobothrium latum*. (3+2)
4. Describe the pathogenesis and complications of *Falciparum malaria*. (3+2)
5. Describe the laboratory diagnosis of fungal infections.
6. Describe the pathogenesis, clinical manifestations laboratory diagnosis and treatment of Sporotrichosis .(1+1+2+1)
7. Name the causative agent and describe the pathogenesis of Burkitt's lymphoma. (1+4)
8. Name the aetiological agent and describe the pathogenesis and clinical manifestations of Histoplasmosis(1+2+2)
9. Name the genera, microscopic morphology and diseases caused dermatophytes (1+2+2).
10. Name the vector, hosts, clinical features and distribution of Kyasanur Forest Disease . (1+1+2+1)
11. Describe the morphology and life cycle of *Giardia lamblia*. (2+3)
12. Describe the lesions caused by Herpes simplex viruses and name two drugs used to treat Herpes simplex virus infections. (4+1)

SHORT ANSWERS

10 X 3 = 30 Marks

13. Enumerate the differences between microfilaria of *W bancrofti* and *B malayi*
14. Enumerate any three general characters of Cestodes.
15. List 3 agents causing oculomycosis.
16. Name three organisms causing catheter associated urinary tract infection. Enumerate any two measures to prevent it.
17. Name three DNA viruses
18. What is cutaneous larva migrans and name two parasites causing it?
19. List 6 personal protective equipment.
20. Enumerate three opportunistic fungal infections in AIDS
21. What is the duration and clinical significance of Window period in HIV.
22. Give three examples of parasites with hexacanth embryo.

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MICROBIOLOGY Paper 1

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LONG ESSAY (Answer any 2)

2 X 10 = 20 Marks

1. Describe the lesions caused by Staphylococcus aureus. How is Methicillin Resistant Staphylococcus aureus (MRSA) detected and the clinical implication of MRSA infections. (5+2+3)
2. Name types of delayed hypersensitivity reaction. Describe their mechanism and the clinical relevance. (2+6+2).
3. Classify sterilization. Describe in detail the working principle of autoclave with a diagram. List the sterilization controls used in the autoclave. (4+4+2).

SHORT ESSAY (Answer any 10)

10 X 5 = 50 Marks

4. 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)
5. Describe the pathogenesis and laboratory diagnosis of Group B Streptococcal infections. (3+2)
6. Mention the types, mechanism, methods of detection of drug resistant tuberculosis. (1+2+2)
7. List the important cytokines and their biological functions.
8. Describe the laboratory diagnosis of syphilis
9. Describe the Structure and biological functions of IgM. (2+3)
10. Describe the Bacterial capsule in relation to its chemical nature, role in pathogenicity and methods of demonstration. (1+2+2)
11. Describe the mechanism of action and methods of detection of Diphtheria toxin. (3+2)
12. Describe different modes of transmission of infection with example for each.
13. Describe the mechanisms of innate immunity.
14. Describe the mechanism of Transduction and its role in development of virulence. (3+2)
15. Describe the Classical pathway of complement activation

SHORT ANSWERS (No choices)

10 X 3 = 30 Marks

16. Mention the type, schedule of Haemophilus influenzae b vaccine.
17. What is Quellung test?
18. Name the agent causing Bubonic plague and its laboratory diagnosis.
19. Name three serological tests done during antenatal period
20. Define Anamnestic response, name conditions in which it is seen and how is it confirmed
21. Name 3 autoimmune diseases and their antibodies
22. Enumerate Koch's postulates
23. Mention the different types of grafts
24. Name three predisposing factors for gas gangrene.
25. Name three agents causing non gonococcal urethritis.

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MICROBIOLOGY Paper 2

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 the protozoa found in blood. Describe the pathogenesis and laboratory diagnosis of Kala azar. (2+4+4)
2. Enumerate the viruses causing Hepatitis. Name the markers of Hepatitis B virus infection and indicate their interpretation. How is Hepatitis B virus infection prevented? (2+2+3+3)
3. Enumerate the trematodes of medical importance. Describe the life cycle and pathogenesis of Schistosoma haematobium. (3+4+3)

SHORT ESSAY (Answer any 10)

10 X 5 = 50 Marks

4. Mention the causative agent, clinical manifestations and treatment of Tropical pulmonary eosinophilia. (1+3+1)
5. Describe the pathogenesis and laboratory diagnosis of Primary amoebic meningoencephalitis.(3+2)
6. Describe the clinical features of congenital Cytomegalovirus infection and name two tests used for the laboratory diagnosis. (3+2)
7. Enumerate the agents causing Malaria. Describe the laboratory diagnosis of cerebral malaria. (2+3)
8. Describe the prophylaxis of Poliomyelitis.
9. Describe the microscopic morphology and clinical manifestations of the three Aspergillus species. (3+2)
10. Describe the life cycle and lab diagnosis of Enterobius vermicularis.(3+2)
11. Draw a neat labelled diagram of Hydatid cyst, its distribution and diagnosis. (3+2)
12. Enlist any two causative agents of eumycotic mycetoma and describe its pathogenesis and laboratory diagnosis(1+2+2)
13. Describe the life cycle of Toxoplasma gondii.
14. Describe the life cycle of Taenia saginata.
15. Describe the predisposing factors, clinical manifestations, and laboratory diagnosis of candidosis (1+2+2)

SHORT ANSWERS (No choices)

10 X 3 = 30 Marks

16. Name three parasites which can be transmitted from mother to the fetus.
17. What is cutaneous larva migrans and name two parasites causing it?
18. Name three RNA viruses with helical symmetry
19. What is the pathogenesis in Balantidium coli infection.
20. Name the mode of transmission, clinical manifestations and prevention of Chikungunya.
21. Name three systemic mycotic infections
22. Name three risk factors and three causative agents of Hospital acquired infections
23. Name any three viral opportunistic infections in AIDS.
24. List 6 personal protective equipment.
25. Enumerate two RNA oncogenic viruses and the malignancies they produce in man.