



Question Paper Code:109

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

M.B.B.S Phase-II Degree Examination JULY 2018

Time:3 hours

Max Marks:100

Handwritten mark

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 aetiological agents of bacterial meningitis. Describe the pathogenesis and laboratory diagnosis of meningococcal meningitis (2+4+4).
2. Describe the central and peripheral lymphoid organs of immune system. Describe the development of T and B cells. (6+4)

SHORT ESSAY

10 X 5 = 50 Marks

3. Mention causative agent, pathogenesis and laboratory diagnosis of chancroid.(1+2+2)
4. Name two clinical types, their causative agents and vectors of Typhus fever group.
5. Describe the pathogenesis and laboratory diagnosis of Group B Streptococcal infections. (3+2)
6. Describe the principle and applications of Hot air oven (3+2)
7. Describe the Structure and biological functions of IgA. (2+3)
8. Mention the types, mechanism, methods of detection of drug resistant tuberculosis. (1+2+2)
9. Describe the Bacterial capsule in relation to its chemical nature, role in pathogenicity and methods of demonstration. (1+2+2)
10. Describe the Classical pathway of complement activation
11. Describe Toxin mediated diseases of Staphylococcus aureus.
12. Describe the mechanism and clinical importance of Arthus reaction.(3+2)

SHORT ANSWERS

10 X 3 = 30 Marks

13. What is Quellung test?
14. Enumerate 3 infections caused by Escherichia coli.
15. Enumerate three bacteria causing zoonotic infections
16. Enumerate three steps in PCR
17. Mention the Epithelial surfaces of the body involved in innate immunity.
18. Enumerate the species of Shigella.
19. List three Transport media with examples
20. Mention three applications of Indirect immunofluorescence test.
21. List three contributions of Robert Koch
22. Enumerate 3 diseases caused by Chlamydia



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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. Discuss the epidemiology, pathogenesis and laboratory diagnosis and prophylaxis of Japanese B encephalitis. (3+2+4+1)

SHORT ESSAY

10 X 5 = 50 Marks

3. Describe the life cycle of Fasciola hepatica.
4. Describe the agent, its transmission and lesion of cutaneous leishmaniasis. (1+1+3)
5. Describe the predisposing factors, clinical manifestations and lab diagnosis of Mucormycosis. (1+2+2)
6. Describe the laboratory diagnosis of Human Immunodeficiency Virus (HIV) infection.
7. Describe the life cycle of Ascaris lumbricoides.
8. Describe the sources, clinical lesions and laboratory diagnosis of Dermatophytes. (1+2+2)
9. Describe the lesions caused by Herpes simplex viruses and name two drugs used to treat Herpes simplex virus infections.
10. Describe antigenic shift and antigenic drift in Influenza virus.
11. Draw a neat labelled diagram of Hydatid cyst, its distribution and diagnosis.
12. Describe the replication cycle of a bacteriophage (5)

SHORT ANSWERS

10 X 3 = 30 Marks

13. Draw a neat labelled diagram of an egg of hookworm.
14. Enumerate any three general characters of Cestodes.
15. Enumerate three opportunistic fungal infections in AIDS
16. Negri bodies: common sites and staining characteristics.
17. Draw a neat labelled diagram of an egg of Trichuris trichura.
18. Draw a labelled diagram of Penicillium marneffi.
19. Name three DNA viruses
20. List three agents causing zoonosis, their reservoir host and diseases in man.
21. List six viruses causing diarrhea.
22. Name the colour coded container into which the following type of waste is discarded: 1. Human tissues, 2. blood stained dressings, 3. Foley's catheter, 4. needles, 5. glass ampoules, 6. gloves



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MICROBIOLOGY PAPER 1

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LONG ESSAY (Answer any 2)

2 X 10 = 20 Marks

1. Mention the source and mode of infection of enteric fever. Describe the pathogenesis and laboratory diagnosis of Enteric fever. (1+1+4+4)
2. Name types of delayed hypersensitivity reaction. Describe their mechanism and the clinical relevance. (2+6+2).
3. Mention the source and mode of transmission of Bacillus anthracis. Describe the pathogenesis, clinical features and laboratory diagnosis of anthrax (1+1+2+3+3)

SHORT ESSAY (Answer any 10)

10 X 5 = 50 Marks

4. Describe the pathogenesis and laboratory diagnosis of Actinomycosis.(2+3)
5. Describe the types and pathogenesis of diarrhoeic Escherichia coli.(2+3)
6. Mention the types, mechanism, methods of detection of drug resistant tuberculosis. (1+2+2)
7. Describe the working principle of Autoclave with a diagram. List the sterilization controls used. (2+2+1)
8. Describe the mechanisms of innate immunity.
9. Describe the laboratory diagnosis of cholera
10. Describe the Bacterial capsule in relation to its chemical nature, role in pathogenicity and methods of demonstration. (1+2+2)
11. Describe the Classical pathway of complement activation
12. Describe the mechanism of action and methods of detection of Diphtheria toxin. (3+2)
13. Describe the Structure and biological functions of IgM. (2+3)
14. Describe the prophylaxis of tetanus
15. Describe the lesion, modes of transmission and laboratory diagnosis Cutaneous anthrax. (1+1+3)

SHORT ANSWERS (No choices)

10 X 3 = 30 Marks

16. What are X & V factors?
17. Mention the Ridley and Jopling classification of Leprosy.
18. Enumerate 3 cultural characteristic features of Bacillus anthracis.
19. Mention 3 biological activities of exotoxins
20. Mention three applications of Indirect immunofluorescence test.
21. Enumerate any three clinical manifestations caused by Pseudomonas aeruginosa.
22. Enumerate Koch's postulates
23. Name 3 immunosuppressive agents.Give their applications.
24. Enumerate the three methods of genetic transfer in bacteria.
25. Name any three Atypical Mycobacteria and the diseases caused.

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MICROBIOLOGY PAPER 2

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LONG ESSAY (Answer any 2)

2 X 10 = 20 Marks

1. Describe the life cycle of hookworm. Describe the pathogenesis and laboratory diagnosis of Ancylostomiasis. (2+4+4)
2. Classify the family Herpesviridae. Describe the pathogenesis of genital herpes and its laboratory diagnosis.(3+3+4)
3. Enumerate the trematodes of medical importance. Describe the life cycle of Schistosoma haematobium and laboratory diagnosis of urinary schistosomiasis. (3+4+3)

SHORT ESSAY (Answer any 10)

10 X 5 = 50 Marks

4. Describe the lifecycle of Entamoeba histolytica.
5. Describe the life cycle of Diphyllbothrium latum
6. Describe the microscopic morphology and clinical manifestations of the three Aspergillus species. (3+2)
7. Describe the post exposure prophylaxis in rabies
8. Describe the clinical manifestations and laboratory diagnosis of round worm infection. (3+2)
9. Describe the predisposing factors, clinical manifestations, and laboratory diagnosis of candidosis (1+2+2)
10. Describe the laboratory diagnosis of Human Immunodeficiency Virus (HIV) infection.
11. Describe the causative agent, sources, lesions produced and treatment Cryptococcosis. (1+1+2+1)
12. Describe the life cycle and lab diagnosis of Trichuris trichura.(3+2)
13. List the differences between live and killed poliomyelitis vaccines
14. Enumerate the Seromarkers of Hepatitis B virus and their clinical implications. (2+3)
15. Describe the morphology of Trichomonas vaginalis and laboratory diagnosis of Trichomoniasis. (2+3)

SHORT ANSWERS (No choices)

10 X 3 = 30 Marks

16. Enumerate the differences between microfilaria of W bancrofti and B malayi
17. Name three parasites that cause anaemia
18. Name 6 clinical types of dermatophytosis based on anatomical sites.
19. Name three RNA viruses with icosahedral symmetry
20. Draw a neat labelled diagram of gametocytes of Plasmodium falciparum.
21. Classify fungi based on sexual spores.
22. Name three Arboviruses causing haemorrhagic fever.
23. Name the colour coded container into which the following type of waste is discarded: 1. Human tissues, 2. blood stained dressings, 3. Foley's catheter, 4. needles, 5. glass ampoules, 6. gloves
24. Name 4 fungal species causing subcutaneous infections
25. List 3 agents causing oculomycosis.