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

M.B.B.S Phase-II Degree Examination JAN 2020

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 6 Clostridial species of medical importance. Describe the pathological events leading to gas gangrene. Outline the treatment for gas gangrene (3+4+3).
- 2. Define and classify hypersensitivity reactions. Describe the mechanism, pharmacological mediators and outcome of type I hypersensitivity. Outline the treatment. (1+2+2+4+1)

SHORT ESSAY 10 X 5 = 50 Marks

- 3. Describe the virulence factors and diseases caused by Helicobacter pylori. (3+2)
- 4. Describe the laboratory diagnosis of Pneumococcal pneumonia
- 5. Mention any 4 sites of Extra pulmonary tuberculosis and their laboratory diagnosis.(2+3)
- 6. Describe the mechanism of conjugation with examples.(3+2)
- 7. List the important cytokines and their biological functions.
- 8. Describe Toxin mediated diseases of Staphylococcus aureus.
- 9. Describe the Bacterial flagella with reference to structure, types and functions. (2+1+2)
- 10. Describe the mechanisms of autoimmunity
- 11. Describe the laboratory diagnosis of gonorrhoea
- 12. Describe Graft versus host reaction.

SHORT ANSWERS

- 13. Name any three Atypical Mycobacteria and the diseases caused.
- 14. What is the procedure and interpretation of CAMP test?
- 15. Enumerate 3 infections caused by Klebsiella pneumoniae.
- 16. Name three chemical sterilants.
- 17. What is Passive immunity? and give examples.
- 18. Draw a neat labelled diagram of a gram stained smear prepared from pus of bubonic plague.
- 19. Name three Selective media with examples
- 20. Name three Complement deficiency disorders
- 21. Mention 3 biological activities of endotoxins
- 22. Name three serological tests done during antenatal period

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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. Describe the life cycle and pathogenesis of Leishmania donovani and laboratory diagnosis of Kala azar. (3+4+3)
- 2. Classify the family Herpesviridae. Describe the pathogenesis of genital herpes and its laboratotry diagnosis.(3+3+4)

SHORT ESSAY

10 X 5 = 50 Marks

- 3. Describe the life cycle and lab diagnosis of Trichuris trichura.(3+2)
- 4. Describe the laboratory diagnosis of Malaria.
- 5. Mention the laboratory diagnosis of Cryptococcal meningitis
- 6. Describe the microscopic morphology and clinical manifestations of the three Aspergillus species. (3+2)
- 7. Describe the mode of infection and pathogenesis of Acanthamoeba. (2+3)
- 8. Describe the laboratory diagnosis of Dermatophytosis and name any two antifungal agents.(4+1)
- 9. Enumerate the viruses causing diarrhea and their laboratory diagnosis.(2+3)
- 10. Enumerate the Coxsackie viruses and list the diseases caused by them (2+3)
- 11. Describe the life cycle of Toxoplasma gondii.
- 12. Describe the types of cytopathic effects in cell culture.

SHORT ANSWERS

- 13. What is visceral larva migrans and name two parasites causing it.
- 14. What is tropical pulmonary eosinophilia? Which parasite it is associated
- 15. Classify fungi based on sexual spores.
- 16. Enumerate three congenital viral infections
- 17. Mention three differences between Ancylostoma duodenale and Necator americanus.
- 18. Name three systemic mycotic infections
- 19. Draw a neat labelled diagram of structure of Influenza virus.
- 20. Name any three antibiotic susceptibility testing methods.
- 21. Enumerate three fungi causing mycetoma
- 22. How is the Bio Medical Waste segregated into colour coded containers

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MICROBIOLOGY- PAPER 1

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LONG ESSAY (Answer any 2)

$2 \times 10 = 20 \text{ Marks}$

- 1. Enumerate the bacteria causing dysentery. Describe the source, mode of transmission, pathogenesis and laboratory diagnosis of bacillary dysentery. (2+1+1+3+3).
- 2. Explain the principle of ELISA test. Enumerate the different types and its diagnostic applications. (4+3+3)
- 3. Draw a neat labelled diagram of the bacterial cell. Describe the structure, types, functions and demonstration methods of flagella.(3+2+2+1+2)

SHORT ESSAY (Answer any 10)

10 X 5 = 50 Marks

- 4. Describe the mechanism of resistance, detection methods and treatment options of Methicillin Resistant Staphylococcus aureus. (2+2+1)
- 5. Describe the lesion, modes of transmission and laboratory diagnosis of cutaneous anthrax. (1+1+3)
- 6. Name the antigens used in Weil felix test. Describe the principle and interpretation of Weil felix test.(1+2+2)
- 7. List the important cytokines and their biological functions.
- 8. Describe the pathogenesis and laboratory diagnosis of Non suppurative complications of Streptococcus pyogenes infections. (3+2)
- 9. Describe Graft versus host reaction.
- 10. Explain the principle of Resistance transfer factor with a diagram.(3+2)
- 11. Mention any 4 sites of Extra pulmonary tuberculosis and their laboratory diagnosis.(2+3)
- 12. Describe Properties & biological effects of Bacterial toxins. (3+2)
- 13. Describe the Biological effects of complement
- 14. Enumerate Aldehydes used in disinfection. Describe the mechanism of action and uses of Aldehydes. (1+2+2)
- 15. Describe the mechanism of Type IV hypersensitivity reaction with examples.(3+2)

SHORT ANSWERS (No choices)

- 16. What is Castaneda biphasic media and its uses.
- 17. What is Quellung test?
- 18. Name any three Atypical Mycobacteria and the diseases caused.
- 19. What is Passive immunity? give examples.
- 20. Name the causative agent, reservoir host and the vector of Lyme's disease.
- 21. Name three T cell immunodeficiency disorders
- 22. Name three Enrichment media with examples
- 23. What are Heterophile antigens and give two examples.
- 24. Name three agents causing non gonococcal urethritis.
- 25. Enumerate 3 infections caused by Klebsiella pneumoniae.

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MICROBIOLOGY- PAPER 2

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LONG ESSAY (Answer any 2)

2 X 10 = 20 Marks

- 1. Enumerate the trematodes of medical importance. Describe the life cycle of Schistosoma haematobium and laboratory diagnosis of urinary schistosomiasis. (3+4+3)
- 2. Enumerate the viruses causing Hepatitis and their mode of transmission. Describe the structure of Hepatitis B virus and laboratory diagnosis of Hepatitis B virus infection. (3+3+4)
- 3. Classify the family Herpesviridae. Describe the pathogenesis of genital herpes and its laboratotry diagnosis.(3+3+4)

SHORT ESSAY (Answer any 10)

10 X 5 = 50 Marks

- 4. Describe the life cycle and lab diagnosis of Trichuris trichura.(3+2)
- 5. Describe the pathogenesis and complications of Falciparum malaria. (3+2)
- 6. Describe the pathogenesis, complications and prevention of Measles. (2+1+2)
- 7. Describe the life cycle of Toxoplasma gondii.
- 8. Enumerate the characteristics of Slow viruses and the diseases caused by them in man (2+3)
- 9. Describe the aetiological agent, lesions caused and laboratory diagnosis of Histoplasmosis.(1+2+2)
- 10. Describe the mode of infection and pathogenesis of Acanthamoeba. (2+3)
- 11. Describe the life cycle of Echinococcus granulosus.
- 12. Describe the pathogenesis and laboratory diagnosis of Rhinosporidiosis. (3+2)
- 13. Describe the clinical manifestations and laboratory diagnosis of round worm infection. (3+2)
- 14. Describe the pathogenesis and laboratory diagnosis of occult filariasis. (3+2)
- 15. Describe the sources, clinical lesions and laboratory diagnosis of Dermatophytes. (1+2+2)

SHORT ANSWERS (No choices)

- 16. What is cutaneous larva migrans and name two parasites causing it?
- 17. What is cysticercus cellulosae and name two common sites where it can be found in man.
- 18. List three Arboviruses found in India and diseases caused.
- 19. Define definitive host and intermediate host with appropriate examples
- 20. Name three nonenveloped DNA viruses.
- 21. Name three agents producing Mycotoxins and diseases caused by them.
- 22. Define nosocomial infections. Name four types of Nosocomial infection.
- 23. Enumerate three DNA oncogenic viruses and the malignancies they produce in man.
- 24. Name any three antibiotic susceptibility testing methods.
- 25. Enumerate three infections caused by Adenoviruses.