

SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH

M B B S Phase II Examination, March 2024

Time: 180 Minutes

Max Marks: 80 Marks

Microbiology Paper I

QP CODE: C2051

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

Long Essay $10 \times 2 = 20$ Marks

1. Define and classify hypersensitivity reactions. Describe the mechanism of type I hypersensitivity with the clinical features and outline the treatment. (3+6+1)
2. A 5 year old child was admitted with one week history of fever, stools with blood and mucous with a frequency of five times a day. A. What is the clinical condition. B. Enumerate the agents causing the above clinical condition. C. Describe the pathogenesis, laboratory diagnosis.(1+2+4+3)

Short Essay $5 \times 12 = 60$ Marks

3. Enumerate Halogens used in disinfection. Describe the mechanism of action and uses of Halogens. (1+1+3)
4. Describe the mechanisms of autoimmunity (5)
5. Describe the clinical features of Acute Rheumatic fever
6. Describe the laboratory diagnosis of Malaria.
7. Mention the causative agent, clinical manifestations and treatment of Tropical pulmonary eosinophilia. (1+3+1)
8. Describe the pathogenesis of Parvovirus B19
9. Describe the pathogenesis and laboratory diagnosis of Cholera (2.5+2.5).
10. Enumerate the Seromarkers of Hepatitis B virus and their clinical implications. (2+3)
11. Enumerate the causative agents of osteomyelitis and describe its laboratory diagnosis (2+3)
12. Name the causative agents of septic arthritis and describe its laboratory diagnosis(2+3)
13. Describe the pathogenesis, clinical manifestations of Toxic shock syndrome. (3+2)
14. Discuss the medico-legal issues pertaining to refusal of care with respect to resuscitation and withdrawal of life support.

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Microbiology Paper II

QP CODE: C2052

Your answer should be specific to the question asked

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Long Essay $10 \times 2 = 20$ Marks

1. Describe morphology, antigenic variation and laboratory diagnosis and prophylaxis of Influenza virus. (2+3+3+2)
2. 24 year old woman presents for an antenatal check up at 20 weeks of gestation. On examination, she has a maculopapular rash on the trunk, extremities and the anogenital area. VDRL test is reactive in 1: 16. a) What is the provisional diagnosis? b) Which test can confirm the diagnosis? c) What are the modes of transmission of this disease? d) Describe the clinical stages of the above clinical condition, e) Describe the laboratory diagnosis of the above clinical condition. (1+2+1+2+4)

Short Essay $5 \times 12 = 60$ Marks

3. Enumerate the characteristics of Slow viruses and the diseases caused by them in man (2+3)
4. Describe the pathogenesis and laboratory diagnosis of Granulomatous amoebic meningoencephalitis. (3+2)
5. Describe the laboratory diagnosis of brain abscess
6. Describe the pathogenesis and complications of Mumps (3+2)
7. Describe the clinical features and laboratory diagnosis of Pneumococcal pneumoniae (2.5+2.5)
8. Describe the clinical manifestations and laboratory diagnosis of Mycoplasma pneumoniae (2.5 + 2.5)
9. Describe the laboratory diagnosis and immunoprophylaxis of Human papilloma virus infection. (2.5+2.5)
10. Describe the causative agent, source and mode of transmission, clinical features of Q fever
11. Describe the predisposing factors and preventive measures for Catheter associated urinary tract infection (2+3)
12. Mention any four airborne diseases and describe the infection control measures to prevent them. (2+3)
13. A 50 year old man admitted for fever, breathlessness commits suicide in the hospital premises. On enquiry it was revealed that he was recently diagnosed to be HIV reactive. Her family members came to know about her HIV status by the RETROPOSITIVE labels on her case file. They shouted at the patient. Discuss about the breach in the confidentiality in this case scenario. Describe the medicolegal consequence of a breach in the confidentiality. (2.5+2.5)
14. Describe the goals of the various National Health programs in the prevention of common infectious disease.

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M.B.B.S Phase-II Degree examination March 2024

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. What is autoimmunity? Describe the mechanisms of autoimmunity & classification of autoimmune diseases (2+5+3)
2. Classify Streptococci. Name the suppurative and non suppurative infections caused by Streptococcus pyogenes and describe their laboratory diagnosis (2+5+3).

SHORT ESSAY

10 X 5 = 50 Marks

3. Describe the laboratory diagnosis of cholera
4. Mention the habitat, laboratory diagnosis, and clinical importance of Enterococcus species(1+2+2)
5. Describe the cells involved in Cell mediated immunity and their role in immune response. (2+3)
6. Describe the principle and applications of Autoclave (3+2)
7. Describe the differential diagnosis, pathogenesis and laboratory diagnosis of Diphtheria.(1+2+2)
8. Describe the diseases caused and methods of detection of Helicobacter pylori. (2+3)
9. Mention the types, mechanism, methods of detection of drug resistant tuberculosis. (1+2+2)
10. Name two clinical types, their causative agents and vectors of Typhus fever group.
11. Explain the principle of Resistance transfer factor with a diagram.(3+2)
12. Describe the types and pathogenesis of diarrhogenic Escherichia coli.(2+3)

SHORT ANSWERS

10 X 3 = 30 Marks

13. Enumerate 3 Halophilic vibrios and the diseases caused.
14. Enumerate three methods of prevention of human anthrax.
15. What are CD8 cells and their functions?
16. List any 3 Rapid growers among Atypical Mycobacteria.
17. Name any three rickettsial infections transmitted through ticks.
18. What is the principle and interpretation of ASLO test?
19. Name three Enriched media with their enriching substances
20. Mention the different types of grafts
21. Name the pleomorphism seen in bacteria. Give two examples
22. Name the causative agents and differential diagnosis of Vincent s angina

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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 the protozoa found in blood. Describe the life cycle of Leishmania donovani and pathogenesis of Kala azar. (2+4+4)
2. List the Arboviral infections in India. Describe the pathogenesis and laboratory diagnosis of Japanese B encephalitis (3+4+3)

SHORT ESSAY

10 X 5 = 50 Marks

3. Describe the laboratory diagnosis of Malaria.
4. Describe the laboratory diagnosis of Dermatophytosis and name any two antifungal agents. (4+1)
5. Describe antigenic shift and antigenic drift in Influenza virus. (2.5+2.5)
6. Enumerate the Cocksackie viruses and list the diseases caused by them (2+3)
7. Describe the distribution and laboratory diagnosis of Extra- intestinal Amoebiasis. (2+3)
8. Describe the clinical manifestations and laboratory diagnosis of Cryptococcosis (2+3)
9. Describe the mode of transmission, pathogenesis and complications of Dengue fever. (1+2+2)
10. Name any three mycotoxins and describe their clinical manifestations. (2+3)
11. List the differences between live and killed poliomyelitis vaccines
12. Describe the laboratory diagnosis of Human Immunodeficiency Virus (HIV) infection.

SHORT ANSWERS

10 X 3 = 30 Marks

13. Name the causative agent, vector and geographical distribution of Sleeping sickness.
14. Mention the steps in the management of blood spills
15. Name the tissue culture methods for viruses
16. What is the pH and composition of Sabourauds Dextrose agar?
17. Name three vectors that transmit parasitic diseases.
18. List clinical manifestations and laboratory diagnosis of Congenital Rubella syndrome.
19. Name 4 fungal species causing subcutaneous infections
20. What is Ventilator associated pneumonia? Name three causative agents.
21. Name 3 fungi causing superficial mycosis
22. Name any three bacterial opportunistic infections in AIDS.