

**Q.P. Code: 216001**

**Reg. no.: .....**

**Second Professional MBBS Degree Regular/Supplementary  
Examinations March 2024  
Microbiology - Paper II**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers
- Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

**Long Essays**

**(2x15=30)**

1. A 45 year old smoker comes to medicine OPD with a history of low grade fever with an evening rise of temperature, loss of weight and productive cough for the past two months. Recently, he had hemoptysis. Microscopic examination of sputum sample revealed acid fast bacilli.
  - a) What is the most probable clinical diagnosis
  - b) Name the etiological agent
  - c) Describe the pathogenesis of this disease
  - d) Describe the laboratory diagnosis in detail
  - e) Discuss the drug resistance that can occur in this etiological agent
  - f) Name the national health programme for this disease (1+1+3+5+4+1)
2. A 5-year-old boy was brought to pediatric casualty with irritability, agitation, abnormal behaviour, difficulty in swallowing liquids and fear of water. His mother informed that he had been bitten by a stray dog two months back. No medical help had been sought at that time.
  - a) What is the most probable clinical diagnosis
  - b) Draw a neat labelled diagram of the causative agent
  - c) Describe the pathogenesis of the condition
  - d) Describe the laboratory diagnosis
  - e) Describe the risk categorization and recommended post exposure prophylaxis of this disease

**(1+2+3+4+5)**

**Short essays**

**(5x8=40)**

3. Laboratory diagnosis of syphilis
4. Describe the pathogenesis and prophylaxis of Varicella Zoster virus infection
5. Describe the etiology and pathogenesis of gas gangrene
6. Describe the etiology, clinical types and laboratory diagnosis of Dermatophytosis
7. Pathogenesis, clinical manifestations and laboratory diagnosis of Toxoplasmosis

**(PTO)**

**Short answers**

**(5x4=20)**

8. Laboratory diagnosis of pneumococcal meningitis
9. Polio vaccines and current vaccination schedule for polio
10. Antigenic variations of influenza virus
11. Etiology, clinical features and laboratory diagnosis of Mycetoma
12. A CSF sample for culture was refrigerated and sent to microbiology laboratory. Write the correct decision and the appropriate action to be taken

**Objective type questions**

**(10x1=10)**

13. Name any TWO skin and soft tissue infections caused by *Staphylococcus aureus*
14. Name ONE antiviral drug used for treatment of influenza
15. Name TWO fungi causing Keratomycosis
16. Name TWO human prion diseases
17. Causative agent of pityriasis versicolor
18. Name TWO oncogenic viruses
19. Name TWO biologic agents used as bioweapons
20. Causative agent of lymphogranuloma venereum
21. Name TWO parasites causing cutaneous larva migrans
22. Name TWO parasites causing lung infection

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