

MICROBIOLOGY**PAPER-II**Time: 3 hours
Max. Marks:100

MICRO/J/19/18/II

Important Instructions:

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

Write short notes on:

1. Define community-acquired methicillin resistant *Staphylococcus aureus* (CA-MRSA). Discuss the changing epidemiology of CA-MRSA infections in community and hospitals. 5+5
2. Enumerate the pathotypes of diarrheagenic *Escherichia coli*. Describe the mechanism of diarrhoea caused by enteropathogenic *E. coli*. 3+7
3. Line probe assay (LPA) and its role in diagnosis and management of tuberculosis. 5+5
4. Post-vaccination changing epidemiology of *Streptococcus pneumoniae* infections. What are the available vaccines against *Streptococcus pneumoniae* infections? 5+5
5. Enumerate etiological agents of genital discharges. Write in brief about laboratory diagnosis of two of these agents. 3+7
6. Classify anaerobes. Write a short outline on pathogenesis and laboratory diagnosis of gas gangrene. 2+3+5
7. Discuss the epidemiology of *Candida auris* infections. Enumerate the distinctive characteristics of *C. auris* infections responsible for rapid emergence of the pathogen. 5+5
8. Enumerate the types of pulmonary Aspergillosis. Discuss the laboratory diagnosis of allergic bronchopulmonary aspergillosis. 3+7
9. Define and classify dermatophytes. What is the current status of drug resistance in dermatophytes? 2+3+5
10. Current epidemiology and laboratory diagnosis of *Cryptococcus neoformans* infections. 5+5
