

MICROBIOLOGY

PAPER – II

Time : 3 hours

Max. Marks : 100

MICRO/D/17/18/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:

- a) State the methods of rapid diagnosis of tuberculosis along with the principle of each. 4+4+2
 - b) Name methods of drug susceptibility tests for Mycobacterium tuberculosis.
 - c) What is the lab diagnostic approach used in National TB Centre Program?
- a) Define CAMRSA and HAMRSA. 3+5+2
 - b) Name the characteristic features of CAMRSA.
 - c) What are the clinical implications of infections due to CAMRSA?
- a) Name the Mycoplasmas of human origin that are frequently detected in urogenital tract. 2+5+3
 - b) Enumerate the various diseases caused by them.
 - c) Laboratory diagnosis of urogenital infections caused by them.
- a) Mention the methods of identification of non fermentative gram negative bacilli. 6+4
 - b) State the epidemiological features of Burkholderia cepacia complex.
- a) Enumerate the methods of anaerobiasis along with the principle. 5+3+2
 - b) What methods are used for the rapid identification of anaerobes?
 - c) State the problem of antimicrobial resistance in anaerobes.
- a) Mention the disease spectrum and laboratory diagnosis of candida infections. 6+4
 - b) What are the methods of antifungal susceptibility tests used in yeasts?

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| 7. | a) Enumerate the infections caused by <i>Aspergillus</i> sp. | 3+4+3 |
| | b) What are the methods used for laboratory identification of <i>Aspergillus</i> sp? | |
| | c) State the role of biomarkers in the diagnosis of invasive aspergillosis. | |
| 8. | a) State the clinical disease spectrum and laboratory diagnosis of <i>Sporothrix schenckii</i> . | 6+4 |
| | b) Mention the Indian epidemiology of sporotrichosis. | |
| 9. | a) Name the causative agents of zygomycosis. | 3+3+4 |
| | b) Mention the clinical characteristics of patients presenting with zygomycosis. | |
| | c) Enumerate methods of its laboratory diagnosis. | |
| 10. | a) Name the non culture techniques for diagnosis of systemic fungal infections. | 5+5 |
| | b) Therapeutic drug monitoring in antifungal therapy. | |
