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C/22/MSc/2nd Sem/MCB-204

2022

M.Sc.

2nd Semester Examination

**MICROBIOLOGY**

**PAPER—204**

Full Marks : 50

Time : 2 Hours

*The figures in the right-hand margin indicate  
full marks.*

*Candidates are required to give their answers in their  
own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**Group - A**

Answer any four questions.

4

1. Name one protein synthesis inhibitor and wall synthesis inhibitor antibiotic.

2. What is probiotic? Mention one health benefit of probiotic.
3. Who proposed the theory of spontaneous generation? State his notable observation.
4. State the contribution of Dr. Edward Jenner for development of First Vaccine.
5. Define autotroph.
6. What is phenol-coefficient?

### Group - B

Answer any *four* questions.

4x4

Write a note on role of microbes in sewage treatment.

acid and one acetic acid  
two bioactive molecules  
mentioning their producer.

2+2

9. State the Koch's postulates.
10. Why Dr. Joseph Lister designated as the 'Father of Modern Antisepsis'?
11. What is pasteurization? Mention its utility?
12. 'Mac-Conkey media is both selective and differential in nature' - Explain.

**Group - C**

Answer any *two* questions. 2x8

13. Discuss about the extrinsic factors that affect the growth of microbes in the food.
14. Describe the contribution of Louis Pasteur in the advent of microbiology.
15. Write the process of spread plate technique with suitable diagram. In which aspect this technique is differed from pour plate technique? Mention the role of agar in the said procedures. 5+2+1

16. State the mode of action of UV-ray and moist heat mediated sterilization. How do you sterilize a liquid culture media containing heat sensitive materials like vitamin? What is enrichment media? Cite one example. 3+2+3

*[Internal Assessment - 10 Marks]*

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