

D 112343

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Name.....

Reg. No.....

**FIRST SEMESTER (CUFYUGP) DEGREE EXAMINATION  
NOVEMBER 2024**

Microbiology

MBY 1CJ 101—INTRODUCTION TO MICROBIOLOGY

(2024 Admission onwards)

Time : Two Hours

Maximum : 70 Marks

**Section A***Answer all questions.**Each question carries 3 marks.**Ceiling 24 marks.*

1. What are the different shapes of bacterial cells ?
2. What are the contributions of Pasteur to the development of microbiology.
3. Write on unique features of Archaeobacteria ?
4. Illustrate the role of glycocalyx in pathogenicity ?
5. Give two important human diseases caused by bacteria and viruses.
6. What is the basic structure of viruses.
7. Detail the structural components of peptidoglycan ?
8. Justify the role of fungi in food industry ?
9. What are the morphological characteristics of Molds and yeast ?
10. What are the important steps involved in viral replication ?

**Section B***All questions can be answered.**Each question carries 6 marks.**Ceiling 36 marks.*

11. Write a note on sexual spores of fungi ?
12. Describe the mechanisms of plant disease management by biocontrol agents ?

**Turn over**

13. Illustrate the steps involved in bacterial sporulation ?
14. What is the significance of PGPR in agriculture ?
15. Explain the role of inclusion bodies in bacterial metabolism ?
16. Justify biological significance of microbes in pharmaceutical industry ?
17. Differentiate G+ve and G-ve cell wall structure of bacteria ?
18. Explain biopesticide and its mechanism of action with suitable examples ?

### Section C

*Answer any **one** question.*

*The question carries 10 marks.*

19. With the help of a neat diagram explain the structure and functions of bacterial cell membrane ?
20. What are the importance of Mycorrhizae in crop growth management ?

(1 × 10 = 10 marks)