



K23P 3257

Reg. No. : .....

Name : .....

First Semester M.Sc. Degree (CBSS – Supple. (One Time Mercy Chance)/Imp.)  
Examination, October 2023  
(2014 to 2022 Admissions)

BOTANY

BOT1C02 – Microbiology and Plant Pathology

Time : 3 Hours

Total Marks : 60

**Instruction :** Draw diagrams *wherever necessary*.

SECTION – A

1. a) Write a detailed account Morphological classification of Bacteria. (2×8=16)  
OR  
b) Write an account on different culture media and their uses.
2. a) Write a detailed note on symbiotic association of *Rhizobium* and legumes.  
OR  
b) Discuss the fungal diseases in crop plants.

SECTION – B

Answer **any two**.

(2×6=12)

3. a) Use of radiation in sterilization.  
b) Draw the structure of a bacterial flagellum.  
c) Write a note on Bacterial genome and its importance in modern biology. (1+2+3)
4. a) What is AMR ?  
b) What is an autoclave ?  
c) What are vaccines ? (1+2+3)
5. a) Name the causative organism of tikka disease of ground nut.  
b) Write a note on filter sterilization method.  
c) Write a note on the harmful effects of chemicals used to control plant diseases. (1+2+3)

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SECTION – C

Answer **any six**.

(6×3=18)

6. How atmospheric pollutants affect plant health ?
7. What are powdery mildews ?
8. Write a detailed note on disinfectants and antiseptics.
9. What are different nutritional groups among bacteria ?
10. Write a brief note molecular taxonomy of microorganisms.
11. The over use and mis-use of antibiotics is problematic. Explain why ?
12. Write a brief account on continuous and synchronous culture methods.
13. Explain the importance of Bergey's manual.

SECTION – D

Answer **any seven**.

(7×2=14)

14. Write the etiology and causative organism of nut fall of arecanut.
15. Explain the microbial process of production of citric acid.
16. What are Actinomycetes ?
17. How will you differentiate antigens and antibodies ?
18. How individual bacterial cells communicate each other within a colony ?
19. Name two bacterial diseases in crop plants.
20. What is Industrial Microbiology ?
21. Explain the structure of cell wall in bacteria.
22. Draw the structure of a bacteriophage.
23. What is rhizosphere ?