



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)**

P.T.O.



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 ?
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