



QP CODE: 25047421



Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, NOVEMBER 2025

Third Semester

M Sc MICROBIOLOGY

**Core Course - MG030302 - ENVIRONMENTAL AND AGRICULTURAL
MICROBIOLOGY**

2019 ADMISSION ONWARDS

36D90224

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Briefly explain multi stage seive sampler .
2. Define air sanitation and explain the role of HEPA filters in preventing the contamination of indoor air .
3. Give an account on Membrane filtration.
4. Define Potable water.
5. Write a note on bacteria that possess cellulolytic properties.
6. What is sulfur reduction and sulfur oxidation?
7. Give a brief account on mutualism.
8. Discuss on the characteristics of Rhizobium.
9. Comment on advantages of biofertilizer.
10. Cite about Thiobacillus sp.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. What are the sources of microbial contamination of air?
12. Describe the procedure for air sampling by impengement.
13. Give an account on organic and inorganic pollutants of water.
14. Describe the role of Nitrosomonas and Nitrobacter in nitrogen cycle.





15. Give a detailed note on siderophore.
16. Write a note on ectomycorrhizae.
17. Write a short essay about Methanogenesis and associated microbes.
18. Write Insitu Bioremediation in detail.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Describe biological treatment of sewage.
20. Explain in detail different groups of fungal populations and the factors influencing their growth in soil.
21. Discuss the methodology and importance in the development of GM crops with reference to various examples .
22. Write an essay about Biofilm and its degradation.

(2×5=10 weightage)

