

QP CODE: 26019264



26019264

Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, MARCH 2026

Fourth Semester

M Sc PLANT BIOTECHNOLOGY

ELECTIVE - BS820403 - MARINE BIOTECHNOLOGY

2019 Admission Onwards

C7B7023C

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Explain how salinity affects seawater density and ocean circulation.
2. Explain how the major ocean zones differ in ecological characteristics.
3. Compare different groups of marine algae and their ecological roles.
4. Analyze the ecological importance of zooplankton in marine ecosystems.
5. Analyze the causes and consequences of marine pollution.
6. Explain how marine algae can serve as bioindicators of pollution.
7. What are marine-derived drugs?
8. Mention one therapeutic use of marine toxins.
9. What is maximum sustainable yield (MSY)?
10. What is an aquafarm?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Explain how the interrelationship between seas and oceans supports marine ecosystems.
12. How does the nitrogen cycle contribute to marine productivity?
13. Explain adaptations of intertidal fauna.
14. Write a short note on coral reef fauna.





15. Discuss the role of microorganisms in marine corrosion.
16. Write a short note on pharmaceutical importance of marine plants.
17. Discuss antimicrobial agents derived from marine flora.
18. Discuss the socio-economic benefits of coastal aquaculture.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Trace the historical development of marine biology as a scientific discipline, highlighting the contributions of early explorers and scientists.
20. Describe the characteristics of the deep-sea ecosystem, highlighting physical conditions, adaptations of organisms, and the structure of food webs.
21. Discuss the role of bioremediation in controlling marine pollution with suitable examples.
22. Explain classification of fishing gears and their operational principles.

(2×5=10 weightage)

