



QP CODE: 26019233



26019233

Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, MARCH 2026

Fourth Semester

M Sc ENVIRONMENT SCIENCE AND MANAGEMENT

**Core Courses - ES010401 - ENVIRONMENTAL BIOTECHNOLOGY AND WASTE
MANAGEMENT**

2019 Admission Onwards

6F3E5559

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Infer the structure and function of mitochondria.
2. Name some microorganisms used in fermentation.
3. Write different stages of plant tissue culture.
4. Identify different components of biosensor.
5. Define bio-fertilizers with examples.
6. Name five biodegradable plastics available in market.
7. Explain pyrolysis.
8. Comment on hazardous wastes.
9. What are the advantages of EcoSan?
10. What are the main components of Ecosan?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Examine the benefits and limitations of bioremediation.





12. Distinguish between Rhizodegradation and Rhizofiltration.
13. Distinguish between plant suspension cultures and chloroplast bioreactors.
14. How does Nutrient Film Technique work?
15. What is removal and recovery in solid wastes? Explain its importance.
16. Explain how zero waste concept helps in waste reduction.
17. Explain the traditional centralised system of water supply and waste water treatment.
18. Summarize grey water.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

*Weight **5** each.*

19. Summarize Bio-desulphurization of coal.
20. Summarize the role of biosensors in environmental monitoring.
21. Comment on Landfill operations.
22. Summarize how Ecosan helps us in human health and food security.

(2×5=10 weightage)

