



QP CODE: 26019206



26019206

Reg No : .....

Name : .....

**M.Sc DEGREE (CSS) EXAMINATION, MARCH 2026**

**Fourth Semester**

M Sc BOTANY

**ELECTIVE - BY810403 - INDUSTRIAL MICROBIOLOGY**

2019 Admission Onwards

AB5ADFC6

Time: 3 Hours

Weightage: 30

**Part A (Short Answer Questions)**

*Answer any **eight** questions.*

*Weight 1 each.*

1. List the major sources of industrially potent microorganisms.
2. Comment on the role of inhibitors in fermentation media.
3. How to check contamination during fermentation.
4. What is hydrolytically driven fermentor?
5. What is absolute air filter?
6. What is acid port and alkali port in a fermentor?
7. Explain the application of Solid-bowl-Scroll centrifuge in downstream processing.
8. What is exocellular enzyme.?
9. What are the uses of Biopolymers?
10. How is carrier binding used to immobilize enzymes?

(8×1=8 weightage)

**Part B (Short Essay/Problems)**

*Answer any **six** questions.*

*Weight 2 each.*

11. Comment on the Biological assay of Penicillin.
12. Discuss briefly the advantages and disadvantages of Batch sterilization of media in fermentation.
13. How can we control the physical and chemical conditions in a fermentor.





14. Explain Scale up of fermentation.
15. Write a note on two-phase aqueous extraction.
16. Write briefly on gluconic acid production.
17. What are the limitations of SCP?
18. Give some common applications of cell Immobilization.

(6×2=12 weightage)

### **Part C (Essay Type Questions)**

*Answer any **two** questions.*

*Weight **5** each.*

19. Explain Solid state fermentation. What are advantages and disadvantages of SSF and add a note on the applications of SSF.
20. Explain different types of physico-chemical and enzymatic methods of cell disruption.
21. Write an essay on Streptomycin production .
22. Write an essay on Bio- butanol fermentation.

(2×5=10 weightage)

