



QP CODE: 25020366



Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE / MERCY CHANCE  
EXAMINATIONS, FEBRUARY 2025**

**Sixth Semester**

B.Sc Biotechnology Model III

**CORE COURSE - BT6CRT16 - INDUSTRIAL BIOTECHNOLOGY**

2017 Admission Onwards

2BD92B3E

Time: 3 Hours

Max. Marks : 60

**Part A**

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Comment on two enzymes produced by bioprocess technology.
2. Define secondary metabolites with an example.
3. Compare prototrophs and auxotrophs.
4. Define somatic fusion.
5. Define fermentation medium.
6. List out the carbon sources used in fermentation medium.
7. List out Any two precursors used in fermentation media with purpose.
8. Discuss the basic points to be noted while designing a bioreactor.
9. Differentiate inner loop and outer loop of an airlift fermenter.
10. Illustrate the microbial growth curve in a batch fermenter.
11. Define DSP.
12. Comment on any two organic acids produced in food industry.

(10×1=10)

**Part B**

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Briefly explain the hazardous effects of chemical process.





14. Explain the stages of wine production.
15. Explain the methods used for screening of industrial strains.
16. Comment on secondary screening technique.
17. Discuss the effect of pH in fermentation.
18. Explain about the optimization of fermentation medium.
19. Aerobic fermentation have an aerating device. Support this statement.
20. Briefly discuss the industrial application of enzymes.
21. Explain the different techniques used for immobilization of cells.

(6×5=30)

### **Part C**

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Explain the history of fermentation.
23. Illustrate methods to identify selected industrially important micro organisms.
24. Describe the basic design of a bioreactor with diagram.
25. Write an essay on antibiotic production.

(2×10=20)

