



QP CODE: 20100429



20100429

Reg No :

Name :

BSc DEGREE (CBCS) EXAMINATION, MARCH 2020

Sixth Semester

B.Sc Biotechnology Model III

Core course - BT6CRT16 - INDUSTRIAL BIOTECHNOLOGY

2017 Admission Onwards

7853788F

Time: 3 Hours

Maximum Marks : 60

Part A

*Answer any **ten** questions.*

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

1. List out the advantages of bioprocess over chemical process.
2. Define trophophase.
3. Define primary screening.
4. Define microbial identification.
5. What is waste sulphite liquor.
6. Role of inducers and inhibitors in fermentation media.
7. Define medium optimization.
8. Write about the basic functions of a bioreactor.
9. Comment the importance of using a sparger in a bioreactor.
10. Discuss the advantage and disadvantage of batch fermentation.
11. Comment on the organism used for the large scale production of penicillin.
12. Applications of immobilized cells in fermentation industry.

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Explain brewing.
14. Write about the role of fermentation in biomass production.





15. Explain the importance of strain improvement in industrial biotechnology.
16. Comment the role of genetic engineering in strain improvement.
17. Distinguish between defined and undefined medium.
18. Discuss the effect of pH in fermentation.
19. Discuss on the aseptic techniques used to prevent contamination during ideal fermentation.
20. Explain the principle and uses of chromatography.
21. Describe how citric acid is produced in industrial scale.

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Elaborate about the applications of industrial biotechnology.
23. Write an essay on the methods of screening of industrially important microorganisms.
24. Discuss on cyclone column and airlift fermenter.
25. Explain the production of amylase using fermentation.

(2×10=20)

