



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY & PLANT BIO-TECH.

SIXTH SEMESTER – APRIL 2013

PB 6609/PB 6606 - FERMENTATION TECHNOLOGY

Date: 30/04/2013
Time: 1:00 - 4:00

Dept. No.

Max. : 100 Marks

PART-A

Answer the following, each within 50 words only:

(10x2=20marks)

1. What are secondary metabolites?
2. What is Fed-batch fermentation?
3. What are stirred tank fermentor?
4. Comment on spargers.
5. Define Tropho phase.
6. Define Biomass.
7. Write few recombinant products of microbial fermentation.
8. What is stream up process?
9. What is steam trap?
10. How is down stream processing?

PART-B

Answer the following, each within 500 words only:

(5x7=35marks)

Draw diagrams wherever necessary:

11. a. Write short notes on recombinant products.
Or
b. Describe the conventional methods for strain improvement.
12. a. Explain the process of sterilization of media.
Or
b. What are the methods involved in preservation of microbial culture.
13. a. Distinguish between the design of batch fermenter and continuous fermentor.
Or
b. What are impellers? What are the different type of impellers?
14. a. What is foam control? Why is it necessary?
Or
b. How pH and temperature are monitored in a fermentor.
15. a. Describe the chromatographic technique used in purification of products
Or
b. Describe the application of computer in the fermentation process?

PART-C

Answer any THREE of the following, each within 1200 words only:

(3x15=45marks)

Draw diagrams wherever necessary:

16. Explain the industrial production of microbial enzyme and their application.
17. Write an essay on media used for industrial fermentation.
18. Give an account on the types of fermentor.
19. Write an essay on biosensor.
20. Describe the process of Down stream processing.

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