



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**M.Sc. DEGREE EXAMINATION – FOOD CHEMISTRY AND FOOD PROCESSING**

THIRD SEMESTER – APRIL 2018

**BT 3876- FOOD BIO-TECHNOLOGY**

Date: 05-05-2018  
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

**Part A**

**Answer all the questions.**

10 x 2 = 20 marks

1. Mention the role of nisin as antimicrobial agents.
2. Differentiate edible mushrooms and toad stools
3. What are biosurfactants?
4. Highlight the purpose of enzymes in baking industry.
5. What are flavours? How are they involved in controlling the microbial growth?
6. Give a note on microalgae.
7. Expand EPA.
8. What are pyrimidines?
9. Define the term passage.
10. What is rDNA?

**Part B**

**Answer any eight questions.**

8 x 5 = 40 marks

11. Give a short note on agarose gel electrophoresis.
12. Explain the industrial production process of chlorella.
13. Write brief notes on DNA double helical structure.
14. Briefly write about the electroporation process.
15. Write a note on the advantages of genetically modified foods.
16. Write short notes on the ethical issues in biotechnology.
17. Write a note on acid fermented dairy product.
18. What are acid antimicrobial agents? How are they involved in formulating food safety?
19. Tabulate industrially important enzymes with its sources and applications in food industries.
20. Explain the purpose of using pectinases in fruit juice production.
21. Write a note on history of fermented foods.
22. Enumerate the following
  - a) Chemical antimicrobials (2.5marks)
  - b) Bacto antimicrobials (2.5marks)

### Part C

**Answer any four questions.**

4 x 10 =40 marks

23. Write an essay on transgenic animals for improving nutritional value of foods.
24. Discuss the central dogma of molecular biology.
25. Give a detailed account on the role of algae as a source of nutraceuticals
26. i) Write a note on recombinant rennet in cheese production (5 marks)  
ii) Role of lactase in dairy industry (5 marks)
27. i) Explain the role of preservatives as antimicrobial agents (5marks)  
ii) Enumerate the significances of r RNA sequencing (5marks)
28. Discuss the enzyme catalyzed modifications in starch hydrolysis.

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