



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

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

THIRD SEMESTER – NOVEMBER 2017

**16PFP3ID01 - FOOD BIOTECHNOLOGY**

Date: 11-13-2017  
Time: 09:00-12:00

Dept. No.

Max. : 100 Marks

**Part A**

**Answer all the questions.**

10 x 2 = 20 marks

1. What is Quercetin?
2. Define Biofortification.
3. List any two mycotoxins.
4. Expand EPA and write a brief note.
5. What are kelps?
6. What are Bio surfactants?
7. What are anti staling agents?
8. List out the nutraceutical applications of Spirulina.
9. What is the role of chymosin in cheese production?
10. Differentiate the submerged and solid state fermentation process.

**Part B**

**Answer any eight questions.**

8 x 5 = 40 marks

11. Write a short note on algal transgenics.
12. Discuss the importance of microalgae and its benefits.
13. Briefly explain the toxicity of marine phycotoxins.
14. Write about the production and application of ferritin products.
15. Expand HACCP and write brief notes.
16. What are the impacts of herbicide tolerant plants.
17. Critically analyse the draw backs of Single cell protein technology
18. Enumerate the industrial production process of chlorella and spirulina.
19. Write a note on acid fermented dairy product.
20. Elaborate the fungal enzymes used in food industries.
21. Explain the mushroom cultivation process.
22. Discuss the applications of agar and carrageenan in food industries.

### Part C

**Answer any four questions.**

4 x 10 =40 marks

23. Discuss the importance of algae as a source of nutraceuticals.
24. Explain in detail the natural toxins of plant origin.
25. Write in detail about the role of genetic modification technology in nutritional improvement of rice.
26. Write a detailed note on enzymes in fruit juice stabilization and clarification.
27. What are functional foods? Explain the role of bio colours in the development of pro biotic and pre biotic foods.
28. What are Bioreactors? Explain the types and industrial applications of bioreactors in detail