

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



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

**THIRD SEMESTER – NOVEMBER 2022**

**PFP 3301 – FOOD BIOTECHNOLOGY**

Date: 30-11-2022

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

**PART – A**

**Q. No Answer ALL the Questions**

**(10×3 = 30 Marks)**

- 1 What is meant by Malt beverage?
- 2 Mention the roles of agitator and sparger in a Bioreactor.
- 3 List the nutritional advantages of edible Mushrooms.
- 4 Highlight the food applications of Agar.
- 5 What is HACCP?
- 6 Enlist the heavy metals contaminating foods
- 7 What are mycotoxins?
- 8 Mention the advantages of bio colors in functional food.
- 9 Name any two food regulatory agency.
- 10 Mention any six roles of GEAC.

**PART – B**

**Answer ALL the Questions**

**(5×8= 40 Marks)**

- 11 (a) Discuss the lactic acid fermentation steps with glycolytic mechanism.  
**(OR)**  
(b) Comment on the production of pickles using fermentation technology.
- 12 (a) Enumerate the applications of Algae as a nutraceutical agent.  
**(OR)**  
(b) Describe the roles of enzymes as anti-staling agents.
- 13 (a) Write a note on enzymes in dairy industry.  
**(OR)**  
(b) Write a note on spirulina.
- 14 (a) Briefly describe the role of food control agencies.  
**(OR)**  
(b) Discuss the toxic effects of pesticide residues in foods.
- 15 (a) Write an account on Bt brinjal production and its issues.  
**(OR)**  
(b) Give a note on genetically modified tomatoes and its application.

**PART – C**

**Answer any TWO Questions**

**(2×15 = 30 Marks)**

- 16 (a) Discuss the fermentation of Bread using yeast. (8)  
(b) Enumerate the submerged fermentation process using bacteria. (7)
- 17 (a) Differentiate pre and probiotics; explain the role of microbial amylase in pre and probiotic formulations. (8)  
(b) Write a detailed note on the role of microbial enzymes in brewing industry. (7)
- 18 (a) Discuss on marine phyco toxins and their harmful effects on humans. (8)  
(b) Give an account on micro algal biotechnology. (7)
- 19 (a) Justify the statement- “GM food crops are environmental friendly”. (10)  
(b) Enlist the applications of genetically modified crops. (5)

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