

PH 591.1

Reg. No.

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**St Aloysius College (Autonomous)**

**Mangaluru**

**Semester I – P.G. Examination – M.Sc Food Science and Technology**

**February 2021**

**FOOD MICROBIOLOGY**

Time: 3 hrs.

**ST.ALOYSIUS COLLEGE**  
PG Library  
MANGALORE-575 007

Max Marks: 70

**I. Answer any SIX of the following:**

**(6x3=18)**

1. Differences between prokaryotes and eukaryotes
2. Robert Koch's postulates
3. Microbial hazards
4. Food spoilage,
5. Listeriosis
6. PCR
7. Microbes of milk and meat

**II. Answer any FOUR of the following:**

**(4x7=28)**

8. Describe the factors affecting the growth of microorganisms.
9. Explain the principle and methodology for radioimmunoassay and ELISA.
10. Discuss the important features of food poisoning.
11. Give a detail note on HACCP system.
12. Explain the classification of microorganisms in detail.

**III. Answer any TWO of the following:**

**(2 x12=24)**

13. Describe the bacterial and non-bacterial agents of food borne illness.
14. Explain the microbiological criteria for dairy foods, processed foods, fish and meat products.
15. Discuss the methods for isolation and detection of microorganisms.

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**Mangaluru**

**Semester I – P.G. Examination – M.Sc Food Science and Technology**

**February 2021**

**PRINCIPLES OF FOOD PROCESSING AND PRESERVATION**

Time: 3 hrs.

**ST.ALOYSIUS COLLEGE**  
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MANGALORE-575 003

Max Marks: 70

**I. Answer any SIX of the following:**

**(6x3=18)**

1. Write note on principles of canning of foods.
2. Write a short note on UHT processing.
3. Write a note on IMF?
4. List the factors influencing oil uptake during frying.
5. Write a short note on changes in food during dehydration and concentration?
6. Write a short note on food additives.
7. Mention the class I and class II preservatives.

**II. Answer any FOUR of the following:**

**(4x7=28)**

8. Explain about thermal death curve.
9. Discuss on frying processes.
10. Describe the drying curves.
11. Explain about changes in food during freezing and frozen storage.
12. Discuss in detail about household preservation method

**III. Answer any TWO of the following:**

**(2 x12=24)**

13. Elaborate on food concentrates and the methods involved.
14. Explain in detail about emulsification process in food processing.
15. Discuss in detail about principle applications of Hurdle technology in food processing.

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**Semester I – P.G. Examination – M.Sc Food Science and Technology**

**February 2021**

**FOOD CHEMISTRY**

Time: 3 hrs.

**ST.ALOYSIUS COLLEGE**  
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MANGALORE-575 007

Max Marks: 70

- I. Answer any SIX of the following: (6x3=18)**
1. Define hydrolysis of lipids.
  2. What is food fortification?
  3. Write the short note on classification of carbohydrates.
  4. Write a note on importance of food chemistry.
  5. What is resistant starch. Give example.
  6. Write a note on bioavailability of calcium and phosphorus.
  7. Define Protein efficiency ratio (PER) and Biological value (BV).
- II. Answer any FOUR of the following: (4x7=28)**
8. Write a note on: Natural and synthetic food colorants.
  9. Write short notes on water activity, moisture sorption isotherm, molecular mobility and food stability.
  10. Describe the chemical properties of lipids and give an account of safety use of oils and fats in food formulations.
  11. Explain Browning reaction in food.
  12. Discuss on functional properties of starch.
- III. Answer any TWO of the following: (2 x12=24)**
13. Briefly describe various methods for the modification of fats and oils.
  14. Explain in detail denaturing process in protein.
  15. Write a detailed note on food flavourants and various technology used for flavour retentions.

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PS 595.1

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**Semester I – P.G. Examination – M.Sc Food Science and Technology**

**February 2021**

**TECHNOLOGY OF MILK AND MILK PRODUCTS**

**Time: 3 hrs.**

**ST.ALOYSIUS COLLEGE**  
PG Library  
MANGALORE-575 003

**Max Marks: 70**

**I. Answer any SIX of the following**

**6 × 3 = 18**

1. Write a note on composition of milk.
2. Importance of membranes in processing.
3. Nutritive value of Cheese.
4. What are the different types of milk? Give their standards.
5. Give the different methods in processing of ghee?
6. Write a note on pasteurization.
7. Give the principle of Freezing.

**II. Answer any FOUR of the following**

**4 × 7 = 28**

8. Discuss on UHT processing of Milk. Explain their methods.
9. Discuss on grading of milk and criteria of grading.
10. What is plate Heat exchanger? Discuss the principles of heat exchange.
11. Utilization of byproducts of dairy industry.
12. Explain physico-chemical property of milk.

**III. Answer any TWO of the following**

**2 × 12 = 24**

13. Explain in detail about processing of cheddar cheese.
14. Discuss the present scenario of Dairy Industries in India.
15. Discuss on Dairy plant sanitation system.

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