PH 591.3 Reg. No. | | | | | | |

St Aloysius College (Autonomous)

Mangaluru

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

JANUARY-2021

TECHNOLOGY OF MEAT, POULTRY AND FISH PRODUCTS

Time: 3 hrs. **Max Marks: 70**

I. Answer any SIX of the following: **(6x3=18)**

1. What is the composition and nutritive value of Poultry meat?
2. Mention the defferent methods of salting in Fish.
3. What is cold shortening? How can it be prevented and how is it different from thaw rigor?
4. Differentiate between Pale Soft Exudative(PSE) and Dark Firm Dry(DFD)
5. Mention the process of conversion of muscle into meat.
6. Write about banding pattern seen in animal muscles.
7. Write a short note on intermediate moisture meat and name 2 intermediate moisture products.

II. Answer any FOUR of the following: **(4x7=28)**

8. Genetic and animal husbandry practices influence the quality of meat. Justify this statement.
9. What are the different stunning methods employed in meat and poultry industries?
10. Discuss the different methods of egg preservation.
11. Explain in detail about the internal and external quality evaluation of Egg.
12. Explain in detail the manufacturing of fish oil and fish meal.

III. Answer any TWO of the following: **(2 x12=24)**

13. Discuss on different preservation method of Fish.
14. Explain in detail about different methods of tenderization of meat.
15. What is irradiation? Explain in detail about the irradiation of meat and meat products.

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

JANUARY-2021

NUTRACEUTICALS AND FUNCTIONAL FOODS

Time: 3 hrs. **Max Marks: 70**

I. Answer any SIX of the following: **6 x 3 = 18**

1. Define nutraceuticals. List out any two nutraceutical products available commercially.
2. Write a note on isoflavonoids.
3. Differentiate between prebiotics & probiotics.
4. Define the term resistant starch.
5. What are phyto-estrogens?
6. Write a note on dietary supplement.
7. Discus in brief about world market for nutraceuticals.

II. Answer any FOUR of the following: **4 x 7 = 28**

8. Mention the biological significance of nutraceuticals.
9. Explain the role of nutraceuticals in diabetes.
10. Explain the role of nutraceuticals in cholesterol management.
11. Explain about the stability of phytochemicals.
12. Discuss on the role of probiotics and prebiotics on gut microbes.

III. Answer any TWO of the following: **2 x 12 = 24**

13. Discuss on the health benefits of natural pigments.
14. Write in detail about the steps involved in Development of Nutraceuticals.
15. Discuss on the role of nutraceuticals in prevention of cancer and cardiovascular diseases.

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

JANUARY-2021

WASTE MANAGEMENT

Time: 3 hrs. **Max Marks: 70**

I. Answer any SIX of the following: **6 x 3 = 18**

1. Define the term, Waste in food processing industry.
2. Write a note on Single Cell Protein.
3. Write a short note on utilization of waste in value added products.
4. Write a note on legislation related to waste management FSSAI 2006 Act.
5. Mention the chemical characteristics of waste water treatment.
6. List out the Industrial wastes obtained from Fruit & Vegetable processing.
7. Name the enzymes used in Meat processing.

II. Answer any FOUR of the following: **4 x 7 = 28**

8. Explain in detail the waste produced from beverage.
9. Discuss about the storage & disposal of Liquid waste.
10. Mention the legal issues related to storage and waste disposal.
11. Explain in detail about effluent treatement plant (ETP).
12. Briefly explain the Environment management systems (ISO1400) and its application on food industry.

III. Answer any TWO of the following: **2 x 12 = 24**

13. Differentiate between non-degradable & biodegradable wastes. Explain in detail the waste produced from fish, meat and poultry industry.
14. Discuss in detail the physical, chemical & biological unit operations in waste water treatment.
15. Discuss in detail the physical and biological characteristics of waste water treatment.

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

JANUARY-2021

FERMENTATION TECHNOLOGY

Time: 3 hrs. **Max Marks: 70**

I. Answer any SIX of the following **6 × 3 = 18**

1. List the various fermenters used in industry.
2. Write a note on 'Shrikhand', a traditional fermentated product.
3. List the steps of downstream processing in fermentation
4. Write a short note on microfiltration membrane process.
5. Write the principle of centrifugation
6. Write a note on the ethical issues concerning GM foods.
7. Write a note on alcohol beverage from cereals.

II. Answer any FOUR of the following **4 × 7= 28**

8. Briefly explain the process of fermentation of soy based products
9. Explain the ethical issues of Genetically Modified Food
10. Explain in detail the process of tea fermentation
11. Infer the need of Solid state fermentation process
12. What do you understand by crystallization? Explain its significance in food industries.

III. Answer any TWO of the following **2 X 12 = 24**

13. Explain in detail the fermentation process in manufacture of *idli and Dosa.*
14. Explain in detail the current guidelines for the production, labelling and traceability of genetically modified food.
15. Explain objectives and problems faced during downstream processing of fermented products

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