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# St Aloysius College (Autonomous)

Mangaluru

Semester IV - P.G Examination - M.Sc. Food Science and Technology

September - 2020

# POST HARVEST TECHNOLOGY OF PLANTATION CROPS

Max. Marks: 70 Time: 3 Hours

I.

(6x3=18)

- What is isoprene rule? Classify terpene based on the number of isoprene 1. units.
- Write short note on brewing of coffee. 2.
- Differentiate between flavourants and colourants. 3.
- Give a brief account on the chemical composition of volatile oils. 4.
- Write a note on the composition of tea. 5.
- Comment on postharvest changes during cocoa processing. 6.
- What is chicory powder? Discuss its applications. 7.

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

(4x7=28)

- Explain the methods employed in extraction of mint oil and write the major 8. chemical components present in mint oil.
- Describe the production process for oleoresins and its application. 9.
- Explain fermentation and roasting in coffee. What are the changes occurs 10. during roasting?
- Describe quality evaluation and grading of tea. 11.
- Explain the process manufacturing of cocoa mass & cocoa butter and role of 12. hydrolytic enzymes in cocoa curing.

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

(2x12=24)

- Describe the technology in the manufacturing of chocolate. 13.
- Provide scientific name and major character impact compounds of turmeric, 14. chili and pepper. Write a short note on their health benefits.
- Explain the methods of extraction of essential oils with suitable diagrams 15. and comment on their applications.

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# St Aloysius College (Autonomous)

#### Mangaluru

Semester IV - P.G Examination - M.Sc. Food Science and Technology

September - 2020

#### **FOOD PACKAGING**

Time: 3 Hours

Max. Marks: 70

I. Answer any SIX of the following:

(6x3=18)

- Define the functions of food packaging.
- Mention the classification of polymers.
- Note on properties of thermoplastic polymers.
- Write a note on Tin plate containers.
- Mention the properties & testing of glass containers.
- Note on Vacuum & Modified atmosphere packaging systems.
- 7. Write a note on Edible films & coatings.

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

(4x7=28)

- Discuss the different types of paper products.
- 9. Explain the processing of conversion of Thermo plastic polymers.
- 10. Explain briefly Aseptic & Retort pouch packaging.
- Mention the sources of toxic materials and migration of toxic into food materials.
- Explain in brief about Nanotechnology in food packaging.

## III. Answer any TWO of the following:

(2x12=24)

- 13. Discuss in detail the processing, properties & testing of paper packaging materials.
- 14. Briefly explain about food packaging labelling, standards & regulations.
- 15. Explain in detail the packaging requirements of different food commodities.

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Reg. No:

# St Aloysius College (Autonomous) Mangaluru

Semester IV - P.G Examination - M.Sc. Food Science and Technology

September - 2020

# FOOD SAFETY AND QUALITY CONTROL

Time: 3 Hours Max. Marks: 70

Answer any <u>SIX</u> of the following:

(6x3=18)

- Write a short note on Organic food.
- Note on concept of food quality.
- Mention the objectives of BIS & AGMARK.
- Mention the principles of food quality assurance.
- List out the different practices involved in TQM.
- Mention the applications of HACCP in food safety.
- Explain the role of ISO 22000.

## II. Answer any FOUR of the following:

(4x7=28)

- 8. Explain in brief food quality assurance and food quality management.
- 9. Explain the different methods in enumeration of microorganisms in food.
- Discuss the current challenges to food safety.
- 11. Explain product and nutritional labelling.
- 12. Discuss in detail the role of importance of Codex Alimentarius Commission.

## III. Answer any <u>TWO</u> of the following:

(2x12=24)

- 13. Discuss the methods of evaluation of food adulteration and toxic constituents.
- Briefly explain the salient features & functions of FSSAI.
- Mention the objectives, importance & functions of quality control in food industry.

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