

The Open University of Sri Lanka
Faculty of Engineering Technology
Department of Agricultural & Plantation Engineering



0005

Study Programme	:	Bachelor of Science Honours in Engineering (Agricultural Engineering) Programme
Name of the Examination	:	Final Examination
Course Code and Title	:	AGX4376 Crop Processing Technology
Academic Year	:	2024/25
Date	:	5 th March 2026
Time	:	13 30-16 30h
Duration	:	3 hours

Index number

General instructions

1. Read all instructions carefully before answering the questions.
2. Answers should be in clear handwriting.
3. Do not use red colour pen.
4. This question paper consists of two (02) sections.

Section 1

- Consists of 15 questions in **six (06)** pages.
- Answer all questions.
- All questions carry equal marks.
- Write answers only in the space provided.
- Please do not remove the question paper from the examination hall.
- You may spend **one (01)** hour to answer this section.

Section 11

- Contain **six (06)** questions in ~~two (02)~~ **two (02)** pages.
- Answer any **four (04)** questions.
- You may spend **two (02)** hours to answer this section.
- All questions carry equal marks.
- Answer for each question should commence from a new page.

SECTION 1

1. List **five (5)** different methods crop processing

- i.
- ii.
- iii.
- iv.
- v.

2. List **three (3)** systems of tea plucking.

- i.
- ii.
- iii.

3. Identify a key function that occur during each step given below in tea & rubber processing.

Tea Fermentation:

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Tea Rolling:

.....

Standardization of rubber latex:

.....

Milling of rubber in rollers:

.....

Bleaching of rubber latex:

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4. Write **five (05)** factors where the dry rubber content (DRC) of latex depends.

i.

ii.

iii.

iv.

v.

5. What is meant by "**skimmed rubber**"?

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6. What is the difference between producing black pepper and white pepper in terms of processing techniques.

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7. Give **five (5)** techniques should follow when storing spices like clove, cinomon, cardomom etc.

- i.
- ii.
- iii.
- iv.
- v.

8. What are the key steps involved in the wet (washed) coffee processing method?

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9. What is meant by "**Cold-pressed oil**"?

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10. What is meant by "**value addition**"?

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11. Select one of the cash crops below and suggest new value-added product your own and state why you suggest it?

Cashew, Sweet Potato, Ginger, Sugarcane

Selected crop.....

Value added product you suggest.....

Why:

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12. What is "quilling process" in cinnamon processing and state its importance

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13. Briefly explain about Sweat box fermentation of Cocoa.

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14. Briefly Explain why mechanical drying produces better quality products than sun drying.

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15. Give the steps of processing Soy flour from soybean.

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0005

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SECTION 2: Answer any four (04) questions.

1. a) Discuss how processing methods influence the chemical composition and quality of tea.
(15 marks)
b) Compare and contrast the processing steps of black tea, green tea, and oolong tea.
(10 marks)
2. a) Briefly explain the latex preservation methods and their importance in rubber processing.
(5 marks)
b) Briefly describe the manufacturing process of Ribbed Smoked Sheets (RSS)
(20 marks)
3. Discuss how value addition in spice crops can be used to attract consumers, using suitable examples
(25 marks)
4. a) Compare wet and dry processing methods used in coffee production.
(10 marks)
b) Explain the paper manufacturing process from raw material preparation to finished paper powder. **(15 marks)**

5. a) Discuss different methods of coconut oil extraction in our country
(5 marks)
b) Discuss different types of production of coconut related products in Sri Lanka.
(20 marks)
6. Write short notes on following **three (3)** topics.
(25 marks)
- i) Grading of tea
 - ii) Orthodox and CTC methods in tea processing
 - iii) Anticoagulant for rubber production
 - iv) Crape rubber production process
 - v) How to increase the paper productivity in Sri Lanka