



QUALIFICATION: BACHELOR OF HUMAN NUTRITION	
QUALIFICATION CODE: 08BOHN	LEVEL: 7
COURSE: FOOD PROCESSING AND PRESERVATION	COURSE CODE: FPC721S
DATE: NOVEMBER 2023	SESSION: 1
DURATION: 3 HOURS	MARKS: 100

FIRST OPPORTUNITY: QUESTION PAPER

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MODERATOR: *DR FRANCIS CHIKUSE*

INSTRUCTIONS:

1. Answer all questions on the separate answer sheet.
2. Please write neatly and legibly.
3. Do not use the left side margin of the exam paper. This must be allowed for the examiner.
4. No books, notes and other additional aids are allowed.
5. Mark all answers clearly with their respective question numbers.

PERMISSIBLE MATERIALS:

1. None

ATTACHMENTS

1. None

This question paper consists of 3 pages including this front page

SECTION A: SHORT ANSWER QUESTION**[12 MARKS]****QUESTION 1:****[12 MARKS]**

1.1 Explain the following terms and concepts:

- 1.1.1 Food processing. (2)
- 1.1.2 Density. (2)
- 1.1.3 Hazard analysis. (2)
- 1.1.4 Intellectual property. (2)
- 1.1.5 Sensory evaluation. (2)
- 1.1.6 Sorting. (2)

SECTION B: LONG ANSWER QUESTIONS**[88 MARKS]**

Please answer ALL of the questions in this section.

QUESTION 2:**[21 MARKS]**

2.1 Write short notes about the following words.

- 2.1.1 Dehydration/ drying. (3)
- 2.1.2 Coating. (3)
- 2.1.3 Mass balances. (3)

2.2 Explain how the following processes affect food nutrient content.

- 2.2.1 Milling. (2)
- 2.2.2 Canning. (2)
- 2.2.3 Pasteurization. (2)

2.2 Briefly discuss three (3) types of shelf-life tests. (6)

QUESTION 3:**[15 MARKS]**

- 3.1 Differentiate between discrimination test and descriptive test. (4)
- 3.2 Differentiate between primary and secondary processing. (4)
- 3.3 Reynold number is the unitless number which determines whether the flow is streamline or turbulent in each fluid? What are the factors that influence the Reynold number? (4)
- 3.4 Enumerate three (3) types of equipment use for dehydration. (3)

QUESTION 4:

[24 MARK]

- 4.1 The World Health Organisation (WHO) has made food safety one of its priorities, urging countries to integrate food safety as an essential public health function. Each food processing companies are required to have Hazard Analysis Critical Control Points (HACCP) plan in their processing plant.
- 4.1.1 Briefly discuss each of the seven (7) principles of HACCP. (14)
- 4.2 List the sources of energy used in food processing. (4)
- 4.3 Describe six (6) factors to consider when choosing the heat application method. (6)

QUESTION 5:

[28 MARKS]

- 5.1 Outline the benefits of blanching food. (3)
- 5.2 State the benefits of food processing and preservation. (6)
- 5.3 Briefly discuss the factors to consider when designing and selecting food processing equipment. (5)
- 5.4 Describe four (4) factors influencing the choice of food packaging. (4)
- 5.5 Explain any five (5) types of intellectual property. (10)

END OF QUESTION PAPER