

HNDS 0381

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DIPLOMA IN HUMAN
NUTRITION AND DIETETICS**

HNDS 0381: FOOD PROCESSING AND PRESERVATION

STREAMS: Y1S2

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 23/04/2025

11.30 A.M. – 1.30 P.M.

INSTRUCTIONS:

- 1. The paper contains section A and B**
- 2. Answer all questions in section A and any two from section B**
- 3. Marks for each question are indicated in parenthesis ()**
- 4. Do not write anything on the question paper.**
- 5. Total marks = 70**

SECTION A: ANSWER ALL QUESTIONS (30 MARKS)

1. Explain the difference between food processing and food preservation. (5 marks)
2. Discuss the main advantages and disadvantages of food processing. (5 marks)
3. Differentiate between Drying and concentration of food as applied in food processing. (5 marks)
4. Describe the intrinsic and extrinsic factors affecting the quality and shelf life of food products. (5 marks)
5. Describe the role of water activity and oxygen in food spoilage and preservation. (5 marks)
6. Discuss various ways of preventing contamination of food during processing and preservation. (5 marks)

SECTION B: ANSWER ANY TWO QUESTIONS (40 MARKS)

7. Foods can be categorized in various ways based on their perishability,
 - (a) Discuss these different classes of foods based on their perishability. (8 marks)
 - (b) Describe the corresponding preservation techniques most suitable for each class of food. (12 marks)
8.
 - (a) Explain the principles of food preservation. (10 marks)
 - (b) Describe different methods of preventing microbial growth, giving examples of foods preserved using each technique (10 marks)

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9. (a) Describe the effects of heat treatment on food quality (5 marks)
- (b) Describe the following heat treatment techniques. (15 marks)
- i) Pasteurization
 - ii) Blanching
 - iii) Sterilization
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