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## TECHNICAL UNIVERSITY OF MOMBASA

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Faculty of Applied and Health Sciences

Department of Pure & Applied Sciences

### UNIVERSITY EXAMINATION FOR:

DIPLOMA IN FOOD TECHNOLOGY AND QUALITY ASSURANCE

AFS2205 : FOOD PROCESSING AND PRESERVATION

SEMESTER EXAMINATION

**SERIES:** DECEMBER 2024:

**TIME:** 2 HOURS

**DATE:** Pick Date Select Month Pick Year

### **Instructions to Candidates**

You should have the following for this examination

*-Answer Booklet, examination pass and student ID*

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

**Do not write on the question paper.**

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### QUESTION ONE

(a) Explain the following terms used in food processing and preservation. (4marks)

(i) Dehydration

(ii) Controlled atmosphere storage

b) Describe the following methods of low temperature preservation. (4marks)

(i) Cold storage

(ii) Freezing

(c) Explain how salting achieves preservation effect in foods. (4marks)

(d) Highlight Four advantages of controlled atmosphere storage. (4marks)

(e) Outline the benefits of fermented products to human health. (4marks)

(f) Highlight the limitations of sun drying in commercial processing of foods. (4marks)

(g) State **two** limitations of irradiation in food processing and preservation. (2marks)

(h) Highlight the preservation principles in smoked products. (4marks)

### **QUESTION TWO**

(a) Explain how the following achieves preservation effect:

(i) freezing. (2marks)

(ii) fermentation. (3marks)

(b) Describe the negative effects of freezing foods. (10marks)

### **QUESTION THREE**

(a) State the advantages of food dehydration. (3marks)

(b) Highlight the **four** changes that occur in food dehydration. (6marks)

(c) Describe the three levels of food irradiation. (6marks)

### **QUESTION FOUR**

(a) Explain “Commercial sterility” as used in thermal processing of foods. (2marks)

(b) Outline the Stages in the processing of a canned Fruit/Vegetable product. (13marks)

### **QUESTION FIVE**

(a) Highlight the advantages of food preservation by irradiation. (5 marks)

(b) Outline the processing stages of brined smoked fish. (10marks)