

1903/204
FOOD PROCESSING AND
PRESERVATION II
Oct./Nov. 2022
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

**CRAFT CERTIFICATE IN FOOD PROCESSING AND PRESERVATION
TECHNOLOGY**

MODULE II

FOOD PROCESSING AND PRESERVATION II

3 hours

INSTRUCTIONS TO CANDIDATES

You should have an answer booklet for this examination.

*This paper consists of **TWO** sections; **A** and **B**.*

*Answer **ALL** questions in section **A** and any **TWO** questions from section **B** in the answer booklet provided.*

*Each question in section **A** carries **4** marks while each question from section **B** carries **20** marks.*

Maximum marks for each part of a question are as shown.

Candidates should answer the questions in English.

This paper consists of 3 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

SECTION A (60 marks)

Answer ALL questions in this section.

1. State **four** conditions a mineral water source should meet for commercial use. (4 marks)
2. State **four** functions of carbonation in soft drink manufacture. (4 marks)
3. Differentiate between whisky and rum. (4 marks)
4. State **four** factors that favour high production rate of carbon (iv) oxide gas in yeast products during proofing. (4 marks)
5. Using a diagram, describe parts of a maize cereal grain. (4 marks)
6. Explain **two** objectives for knock down process of dough in bread making. (4 marks)
7. Explain the reasons for vacuum creation at the head space during canning operations for fruits and vegetables. (4 marks)
8. Differentiate between hot exhaustion and hot filling as applied in fruits and vegetables in a canning operation. (4 marks)
9. Describe the nutritional composition of fruits. (4 marks)
10. Explain how each of the following factors affect storage life of potatoes:
 - (a) respiration; (2 marks)
 - (b) high temperature. (2 marks)
11. Describe the desirable quality attributes of potato crisps. (4 marks)
12. Explain the storage loss of potatoes due to darkening of flesh. (4 marks)
13. State **four** uses of honey in the food processing industry. (4 marks)
14. Distinguish between bagasse and bagacillo in sugarcane processing industry. (4 marks)
15. State **four** reasons for sugarcane preparation before processing. (4 marks)

SECTION B (40 marks)

Answer any TWO questions from this section.

16. (a) Explain the functions of each of the following ingredients used in production of soft drinks:
- (i) water; (2 marks)
 - (ii) acidulants; (2 marks)
 - (iii) emulsifiers; (2 marks)
 - (iv) stabilizers; (2 marks)
 - (v) sugar. (2 marks)
- (b) Discuss the grades of coffee in Kenya. (10 marks)
17. (a) State **five** factors which determine the efficiency of imbibition in sugarcane processing. (5 marks)
- (b) State **five** defects of mineral water due to contamination at the source. (5 marks)
- (c) With the aid of a diagram, describe the compound imbibition as applied in the process of production of sugar from sugarcane. (10 marks)
18. (a) Explain the functions of yeast foods as applied in baking technology. (4 marks)
- (b) State **four** causes of excessive loaf volume in bread making. (4 marks)
- (c) Name **four** staling retarding agents in baking. (4 marks)
- (d) Explain **four** functions of fats in the manufacture of baked products. (8 marks)
19. (a) State **six** uses of sweet potatoes in the food industry. (6 marks)
- (b) Using a flow diagram, describe the processing of french fries in the food industry. (14 marks)

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