

005/104  
FOOD SCIENCE, FOOD SAFETY AND  
HYGIENE, MEAL PLANNING MANAGEMENT  
AND SERVICE THEORY  
March/April 2020  
Time: 3 hours



**THE KENYA NATIONAL EXAMINATIONS COUNCIL**  
**CRAFT CERTIFICATE IN NUTRITION AND DIETETICS**

**MODULE I**

**FOOD SCIENCE, FOOD SAFETY AND HYGIENE, MEAL PLANNING MANAGEMENT  
AND SERVICE THEORY**

**3 hours**

**INSTRUCTIONS TO CANDIDATES**

*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 in section B carries 20 marks.*

*Maximum marks for each question are as indicated.*

*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 the questions in this section.*

1. State **four** external factors to consider in determining quality of food. (4 marks)
2. Describe the following processes used in food preservation:
  - (a) pickling; (2 marks)
  - (b) smoking. (2 marks)
3. Zack is very particular on the type of oil used in his restaurant. Identify **four** plant sources of oil that he may use in cooking. (4 marks)
4. State **four** ways in which cross-contamination of foods can occur in the kitchen. (4 marks)
5. Give **two** examples of food hazards in each case:
  - (a) chemical hazards; (2 marks)
  - (b) biological hazards. (2 marks)
6. Distinguish between 'HACCP plan' and 'HACCP system'. (4 marks)
7. Donny is an obese 26 year old. He has been advised by his doctor on healthy feeding. Indicate to Donny **four** benefits he will derive from planning healthy meals. (4 marks)
8. Nelly is organizing an afternoon visit for her office mates in her home. She is considering serving a high tea. Mention **four** factors she may consider when selecting the food items. (4 marks)
9. Give **four** reasons why the correct design and layout of a food premises is important. (4 marks)
10. Highlight **four** advantages of a catered buffet type of meal service. (4 marks)
11. Explain the following concepts that are used in HACCP:
  - (a) control point; (2 marks)
  - (b) corrective action. (2 marks)
12. Suggest **four** good personal hygiene habits practiced in the kitchen. (4 marks)
13. Explain **four** factors to consider when selecting commercial food service equipment. (4 marks)

4. Describe the following types of meals that a hotel entrepreneur can serve guests:

- (a) gala dinner; (2 marks)
- (b) carnivore. (2 marks)

Highlight **four** qualities of fresh pork. (4 marks)

**SECTION B (40 marks)**

*Answer any TWO questions from this section.*

- (a) Indicate **eight** uses of food additives. (8 marks)
- (b) Shawn likes to host in his house upcountry. Describe **six** essential dining etiquette practices that he would expect his guests to observe while dining. (12 marks)
- (a) Describe each of the following developments in food technology:
  - (i) process optimization; (2 marks)
  - (ii) high-temperature short time processing. (2 marks)
- (b) Explain **three** benefits of food preservation using low temperatures. (6 marks)
- (c) Mulei intends to sensitize his kitchen staff on food hygiene. Explain **five** high-risk foods he would mention that cause food poisoning. (10 marks)
- (a) Give **three** reasons why HACCP is important in the food industry. (6 marks)
- (b) Shadia, a 2nd year student is studying about food nutrients. Highlight **two** classifications of protein that she may need to know. (4 marks)
- (c) Outline **five** factors considered when planning meals for children. (10 marks)
- (a) State the **five** preliminary tasks involved in the development of the HACCP plan. (5 marks)
- (b) Mandi has a pastry shop that she runs with her younger brother. Of late, her customers have raised a complaint on the change of quality in her cheese products. Suggest **five** factors that may affect the yield of cheese. (5 marks)
- (c) Explain **five** guidelines used for effective application of the pickling process in food preservation. (10 marks)

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