

1507/112 1819/102
1802/102 1907/102
FOOD SCIENCE AND NUTRITION
June/July 2018
Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

**CRAFT CERTIFICATE IN CATERING AND ACCOMMODATION
CRAFT CERTIFICATE IN FOOD AND BEVERAGE PRODUCTION AND
SERVICE
CRAFT CERTIFICATE IN BAKING TECHNOLOGY
MODULE I**

FOOD SCIENCE AND NUTRITION

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 **THREE** questions from section **B** in the answer booklet provided.*

Maximum marks for each part of a question are 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 (55 marks)

Answer ALL the questions in this section.

1. State **four** ways in which HIV infection may be transmitted. (4 marks)
*using sharp object
- Sexual transmission
- blood transfusion
- mother to child*
2. Identify **four** types of foods that are more susceptible to the growth of bacteria. (4 marks)
*- Bread - Raw meat
- pork - raw foods
Baked foods*
3. The food production unit at Watamu Enterprises is infected with mice and rats. State **four** reasons that may account for this infestation. (4 marks)
*- left over of foods - presence of dirty equipments
- uncleaned surfaces Vitamin B1 B2 B12 Riboflavin*
4. List **six** vitamins that belong to the B-complex group. (3 marks)
5. Outline **three** functions of minerals in the human body. (3 marks)
6. About 70% of salt in the diet comes from manufactured foods. List **eight** types of processed food that have high salt content. (4 marks)
7. State **five** intrinsic factors that may affect microbial growth in food. (5 marks)
8. Explain each of the following terms as used in food preservation:
 - (a) freeze-drying; (2 marks)
 - (b) fermentation. (2 marks)
9. Differentiate pasteurised milk from sterilised milk. (4 marks)
10. Identify **six** types of cereals that may be used in the food industry. (3 marks)
11. Explain **two** reasons that make it necessary to chew food. (4 marks)
*- Increase palatability
- easy swallowing*
12. Outline **three** legal prohibitions in relation to the use of food additives. (3 marks)
13. State **three** reasons for measuring PH during food processing. (3 marks)
14. Identify **six** signs and symptoms of food poisoning. (3 marks)
15. Explain the use of each of the following food additives in food processing:
 - (a) food stabilizers (2 marks)
 - (b) meat tenderisers (2 marks)

SECTION B (45 marks)

Answer any **THREE** questions from in this section.

16. (a) State **four** guidelines that should be followed when buying each of the following food commodities:
- (i) butter;
 - (ii) bacon.
- (8 marks)
- (b) Outline **seven** signs and symptoms of protein-calorie malnutrition in adults. (7 marks)
- ✓ 17. (a) Food handlers should wash their hands frequently while on duty. State **six** situations when it is necessary to do so. (6 marks)
- (b) Explain the meaning of each of the following terms as used in food science:
- (i) base;
 - (ii) alkali.
- (c) Outline **five** properties of monosaccharide sugars. (4 marks)
18. (a) State **two** differences between alkynes and alkanes. (4 marks)
- (b) Outline **six** functions of food additives in food processing. (6 marks)
- (c) Highlight **five** ways in which microbial decomposition of food may be prevented. (5 marks)
19. (a) State **six** health problems that an overweight person may suffer. (5 marks)
- (b) Describe the chemical test that should indicate the presence of carbon and hydrogen in protein food. (6 marks)
- (c) Outline the **four** steps that should be followed when cleaning food production tools. (4 marks)
20. (a) Explain **three** negative effects of enzymes in food. (6 marks)
- (b) State **six** potential dangers of using food additives (6 marks)
- (c) Outline **three** indicators of food spoilage. (3 marks)

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