

**THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
ADVANCED CERTIFICATE OF SECONDARY EDUCATION
EXAMINATION**

155/1

FOOD AND HUMAN NUTRITION 1

(For Both School and Private Candidates)

Time : 3 Hours

Year : 2002

Instructions

1. This paper consists of sections **A** and **B**.
2. Answer all questions in section **A** and only **three (3)** question from section **B**.
3. Non-programmable calculators may be used.
4. Communication devices and any unauthorised materials are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).

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SECTION A (40 Marks)

Answer all questions in this section.

1. (a) Differentiate between baking soda and baking powder.
(b) Mention four weak acids used with baking soda to neutralize its effect.
(c) Explain the role of a filler material in baking powder.
2. (a) State four properties of vitamin A.
(b) Explain three factors that influence the absorption of vitamin A.
3. (a) Briefly describe three temporary grain storage methods used in Tanzania.
(b) State four disadvantages of underground grain storage.
(c) Suggest three modern alternatives to improve grain storage.
4. (a) Define the term leavening agent.
(b) Describe how a physical raising agent works in dough.
(c) State two determinants for selecting a raising agent and give examples.
5. (a) Differentiate chronic food insecurity from transitory food insecurity.
(b) Analyse the effects of environmental degradation on food production.
(c) Briefly explain two ways to reduce the impact of civil conflicts on food security.

SECTION B (60 Marks)

Answer any three questions from this section.

6. Explain the primary causes of food losses in tropical storage systems and propose solutions.
7. Describe nine chemical preservatives used in the food and beverage processing industry to control microbial growth.
8. Discuss the nutritional requirements of the elderly and suggest features of an appropriate diet to meet their needs.
9. Evaluate the effects of pesticide misuse on food safety and suggest measures to prevent poisoning.

10. “Fish are highly perishable foods that require immediate preservation.” Discuss with reasons and traditional preservation methods.