

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

155/1

FOOD AND HUMAN NUTRITION 1

(For Both School and Private Candidates)

Time: 3 Hours

Year: 2023

Instructions

1. This paper consists of sections **A** and **B**.
2. Answer **all** questions in section **A** and only **Two (2)** questions from section **B**.
3. Cellular phones and any unauthorised materials are **not** allowed in the examination room.
4. Write your **examination Number** on every page of your answer booklet(s).

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SECTION A (60 Marks)

Answer all questions in this section.

1. In order to produce high quality and safe food products, a proper control in the whole chain of production starting from raw materials to the final products is very important. In view of this statement, briefly explain:
 - (a) The role of the following agents in ensuring that food quality and safety is met and maintained.
 - (i) the government
 - (ii) food companies
 - (iii) customers.
 - (b) The rationale for quality management systems to a food production organization. Give two points.
2. Suppose you were invited to give a presentation in a short training on thermo-processing of vegetables by canning method. Illustrate five basic steps you would include in your presentation for the industrial production of high quality canned vegetables.
3. Household food security is an important aspect in achieving good nutritional status. Support this statement by;
 - (a) briefly explaining three basic components of household food security.
 - (b) Identifying four qualitative conditions for adequate nutrients supply for active and health life.
4. Farmers in your village are complaining that a large amount of food crops is lost after harvesting as a result of spoilage and deterioration. Assist them to control the situation by briefly explaining;
 - (a) three causes of food crop spoilage and deterioration.
 - (b) three indicators of spoiled and deteriorated food crops.
 - (c) four control measures of food crop spoilage and deterioration.
5. Recommended Dietary Allowance (RDA) is the guideline for selection of types and amount of nutrients to be consumed to meet the body needs. Briefly describe five uses of RDA.
6. Suppose you were consulted by a large-scale farmer who wants to construct a storage structure for safe storage of food grain. Assist this farmer by;
 - (a) differentiating traditional storage structures from modern storage structures.
 - (b) briefly explaining four characteristics of improved storage structures.
7. Mr. Salehe who is a new food processor and supplier observed rancidity in most of his stored food products. Assist him by;
 - (a) explaining six factors which accelerate the development of oxidative rancidity in fats and oils.
 - (b) suggesting six methods of preventing rancidity.
8. Proper planning of family meals requires adequate knowledge on food and nutrition for the nutrient requirements of all members to be met. In view of this statement;
 - (a) explain six benefits of meal planning.
 - (b) outline six factors to consider when planning family meals.
9. You were consulted by form five students who failed to perform the experiment to determine the percentage of crude fat content in a given food sample by using Soxhlet method. With the aid of a well labelled diagram of the Soxhlet apparatus, explain seven stages of the experiment that leads to a correct value.