

072106T4BAK

BAKING TECHNOLOGY LEVEL 6

Apply Scientific Theory in Baking Technology.

FOP/ OS/BT/CC/02/6/A

March/April 2025



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

WRITTEN ASSESSMENT

Time: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper consists of **TWO** sections: **A** and **B**.
2. Answer **ALL** questions in section A and **ANY THREE** (3) questions in section B.
3. Marks for each question are indicated in the brackets.
4. Candidates are provided with a separate answer booklet
5. Do not write on the question paper.

This paper consists of THREE (3) printed pages

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

SECTION A (40 MARKS)

Attempt ALL the questions in this section.

1. Water is essential since it provides a medium in which nutrients, enzymes and other chemical substance are dispersed and in which chemical reactions takes place. State FOUR physical properties of water. (4 Marks)
2. Proteins are very important in the body as they are the major part of cells that actually form the body. Differentiate between essential and non-essential amino acids giving two examples in each. (4 Marks)
3. Minerals are inorganic substances which are present in many foods and are of vital importance to the body. State FOUR types of mineral salts. (4 Marks)
4. Hydrocarbons are organic compounds that contain only carbons and hydrogen. Name FOUR classes of hydrocarbons. (4 Marks)
5. Carbonyl compounds are used as flavoring agents in food industry and dairy. State FOUR types of carbonyl compounds. (4 Marks)
6. Water is an essential commodity in any production establishment. State FOUR functions of water in the bakery. (4 Marks)
7. The unique characteristics of hydro carbons make them essential agents to use in a bakery workshop. State FOUR characteristics of hydrocarbons. (4 Marks)
8. Write the chemical equation for the reaction that occurs when baking soda is heated. (4 Marks)
9. Carbonyl compounds are a functional group with the formulae $C=O$. Composed of carbon atoms, double bonds to an oxygen. State FOUR functions of carbonyl compounds. (4 Marks)
10. Margarine improves the leavening and nutrition of baked goods. State FOUR properties of lipids in confectionery. (4 Marks)



SECTION B (60 MARKS)

Attempt Any THREE Questions in This Section

11. The solubility of a substance is determined by several factors.
- a) Explain SIX factors that affect solubility of a substance. (12 Marks)
 - b) Explain FOUR functions of a solvent. (8 Marks)
12. The browning of baked goods is caused by chemical reactions that occur when food is heated.
- a) Explain FIVE points on how to control browning effects in baking. (10 Marks)
 - b) Explain FIVE qualities of a well baked products. (10 Marks)
13. Different foods determine whether a person's diet is healthy or not, therefore the types of food and drink we eat are very important as they are linked to person's general health and wellbeing.
- a) Discuss FOUR types of macro nutrients. (12 Marks)
 - b) Explain FOUR properties of carbohydrates. (8 Marks)
14. Malt is a source of widely used enzymes in the baking industry.
- a) Explain FIVE classifications of enzymes based on their catalytic properties. (10 Marks)
 - b) Explain FIVE functions of enzymes. (10Marks)

