

073205T4BLD**BUILDING TECHNICIAN L 5**Printed By: Technical And Vocational College Date: 24.07.2025
10:38 AM**CON/OS/BUT/CR/04/5****Construct Roof Structure****July/August 2025**Printed By: Technical And Vocational College
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**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

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WRITTEN**ASSESSMENT****Time: 3 HOURS**

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INSTRUCTIONS TO CANDIDATE

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1. Marks for each question are indicated in the brackets.

2. The paper is divided into **TWO** sections: **A and B**

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3. Candidates are provided with a separate answer booklet

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4. **DO NOT** write on this question paper.

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This paper consists of FOUR (4) printed pages

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

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SECTION A (40 MARKS)*Answer all questions in this section*

1. You are assigned to assist in roofing work on-site. State THREE safety precautions when working on a roof structure. (3 Marks)
2. A flat roof is a common type of roofing used in Kenya. Give THREE characteristics of flat roofs. (3 Marks)
3. You have been asked to recommend suitable roofing materials for a residential house. List FOUR types of roof coverings used in residential buildings. (4 Marks)
4. You are installing different types of roofs. Sketch a closed gable roof and label key components. (4 Marks)
5. The level of workmanship is an important aspect to consider when selecting the method of setting out the roof. Outline FOUR other factors to consider. (4 Marks)
6. You are fabricating roof components in a workshop. List FOUR tools used in roof fabrication and state their use. (4 Marks)
7. The setting out of roofs is an important step in ensuring accurate construction is done. List FOUR tools used in setting out the roof. (4 Marks)
8. You have been contracted to install a timber roof. List THREE types of timber joints you will use in roofing. (3 Marks)
9. You are selecting roofing materials for a project in a hot and wet region. Outline FOUR factors to consider when selecting roofing materials. (4 Marks)
10. You are using timber and steel for roof framing. State TWO advantages and TWO disadvantages of timber as a roofing material. (4 Marks)
11. You are assigned to inspect installed rainwater harvesting goods. State THREE rainwater goods you expect to find on that roof. (3 Marks)

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SECTION B (60 MARKS)*THREE questions in this section*

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12. Roofing is an important element in buildings, which necessitates most clients to use timber trusses.

a. Discuss FIVE functions of a roof in a building. (10 Marks)

b. Outline four for erecting a timber truss. (10 Marks)

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13. You are selecting materials for roof installation on a site located in a high-rainfall region.

a. Discuss FIVE factors influencing the choice of.

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(10 Marks)

b. With the aid of sketches, illustrate the following types of joints:

i. Butt Joint

ii. Mortise and Tenon

iii. Box Joint

iv. Mitre Joint

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v. Lap Joint.

(10 Marks)

14. You are asked to supervise installation of roof members. With the aid of a sketch, describe TWO functions of each of these roof members.

i. Wall plate

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ii. Rafters

iii. Purlins

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st

v. Tie Beam.

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(20 Marks)

15. Rainwater goods are very important in ensuring the durability and functionality of a roof structure. It is therefore important to make sure they are well installed.

a. Describe FIVE basic goods. (10 marks)

b. Explain FIVE reasons why it is important to properly maintain rainwater goods on a building. (10 marks)

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