

073206T4BLD

BUILDING TECHNOLOGY LEVEL 6

CON/OS/BUT/CC/05/6

Execute Building Temporary Works

March/April 2026



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

WRITTEN ASSESSMENT

TIME: 2 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

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

SECTION A (40 MARKS)

Answer ALL the questions in this section

1. Formwork is a temporary structure erected to receive and support fresh concrete. Identify THREE types of formwork based on the structural element they support. (3 Marks)
2. You are in charge of dismantling of a high-rise scaffolding system. Highlight FOUR safety hazards that are likely to be encountered during the exercise. (4 Marks)
3. A mason has been assigned to carry out timbering for a deep trench. State FOUR components of a typical timbering system used for such deep trenches. (4 Marks)
4. Shoring is a critical temporary work activity on construction sites. Give THREE reasons why site investigation is necessary before erecting heavy shoring. (3 Marks)
5. Tubular steel scaffolding consists of vertical and horizontal members. Differentiate between a standard and a ledger. (2 Marks)
6. You have been tasked with carrying out shoring to a wall. List THREE conditions under which shoring is required. (3 Marks)
7. For formwork to perform effectively, it must meet specific functional requirements. Highlight FOUR functional requirements of a formwork system. (4 Marks)
8. You are required to conduct timbering for a newly excavated trench. Outline FOUR properties of a good timbering material you would consider. (4 Marks)
9. Excavation works present significant risks if not properly managed. Outline FOUR signs that indicate potential failure of a timbered trench. (4 Marks)
10. Temporary works involve several specialized construction terms. Briefly describe the following terms as used in temporary work: (3 Marks)
 - a. Underpinning
 - b. Propping
 - c. Putlog
11. As a foreman overseeing the dismantling of shoring structures, worker safety is a priority. Mention THREE items of personal protective equipment that should be used during dismantling. (3 Marks)
12. Ensuring workers' safety is vital when working on scaffolding in high-rise buildings. Outline THREE legal requirements for scaffolding inspection as stipulated in occupational safety legislation. (3 Marks)

SECTION B (60 MARKS)

Answer any THREE questions in this section

13. As a site supervisor, you have been tasked with overseeing concreting of columns in a construction project.
- a. Discuss FIVE reasons why you would choose steel formwork over timber formwork. (10 Marks)
 - b. Explain FIVE consequences of premature striking. (10 Marks)
14. A building contractor is carrying out construction works on a multi-storey building where scaffolding is being used to provide access and working platforms for operatives.
- a. Discuss FIVE common causes of scaffold failure on such a construction site. (10 Marks)
 - b. Explain FIVE safety measures that should be observed when moving mobile tower scaffolds on the construction site. (10 Marks)
15. Wajenzi Contractors are carrying out deep trench excavation works as part of an earthworks project. A consultant recommends the use of sheet piling to provide temporary trench support.
- a. Describe the sheet piling method of timbering and discuss THREE conditions where it is preferred. (10 Marks)
 - b. Explain FIVE safety requirements for workers operating inside trenches deeper than 1.5 metres. (10 Marks)
16. An engineering firm is tasked with the rehabilitation of a multi-span highway bridge. To facilitate the replacement of existing bearings, a temporary falsework system is to be installed to support the bridge deck during the operation.
- a. Discuss FIVE factors the engineering firm should consider when designing a temporary support system for a bridge deck. (10 Marks)
 - b. Describe FIVE components of raking shore used as part of the temporary support works. (10 Marks)

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