

073206T4BLD

BUILDING TECHNICIAN LEVEL 6

CON/OS/BUT/CR/05/6

EXECUTE BUILDING TEMPORARY WORKS

July/Aug 2023



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

WRITTEN ASSESSMENT

TIME: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. The paper consists of **TWO** sections: A and B.
2. Marks for each question are indicated in the brackets.
3. A separate answer booklet will be provided.
4. 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)

Answer all questions in this section

1. Define the term timbering as used in the construction. (2 Marks)
2. Timbering is highly recommended during foundation trench excavation. List any **four** functions of timbering. (4 Marks)
3. As a building technician, mention any **two** trench timbering materials used in the building. (2 Marks)
4. Allan is a mason, tasked to do timbering highlight any **three** timbering tools that he can use. (3 Marks)
5. Define the term site investigation. (2 Marks)
6. Identify **four** reasons for undertaking site investigations. (4 Marks)
7. As a foreman supervising a construction site, recommend **three** personal protective equipment to be used during temporary works. (3 Marks)
8. State the **two** methods of excavation used when doing site investigation. (2 Marks)
9. Define the following terms
 - a. Scaffold. (2 Marks)
 - b. Scaffolding. (2 Marks)
10. During the construction of a two-storey building, a building technician improvised scaffolding. List **four** important reasons why scaffolding is necessary in this task. (4 Marks)
11. Outline any **four** components of a scaffold. (4 Marks)
12. Define the term shoring. (2 Marks)
13. Shoring is a crucial temporary work in construction sites, state **FOUR** types of shoring. (4 Marks)

SECTION B (60 MARKS)

Answer only THREE questions in this section.

14. Timbering is commonly used in supporting excavated trenches to prevent collapsing.
- Describe **three** conditions where sheet piling is used. (6 Marks)
 - With an aid of a diagram, describe Strut bracing as a timbering method. (6 Marks)
 - Explain any **four** members used in timbering. (8 Marks)
15. As a building technician you are tasked to do concreting in the structural elements, therefore there is need to use formwork.
- Describe **three** advantages of using steel formwork over timber formwork. (6 Marks)
 - Explain **six** functional requirements of a good formwork. (6 Marks)
 - With an aid of a diagram, describe formwork for beams and floors. (8 Marks)
16. During a painting exercise at the existing storey building, scaffolding was recommended.
- Explain **two** main causes of accidents during scaffolding. (4 Marks)
 - Explain any **two** parts of a steel tubular scaffold. (4 Marks)
 - Explain **three** precautions taken when using scaffolds. (6 Marks)
 - Describe **three** conditions where cantilever scaffold is used. (6 Marks)
17. You are given a task for refixing a window opening at the second floor in building C.
- Explain **three** reasons of shoring in that task. (6 Marks)
 - Describe **three** conditions where shoring is used in construction works. (6 Marks)
 - Discuss **four** types of shoring used in construction works. (8 Marks)