

073206T4BLD

BUILDING TECHNICIAN LEVEL 6

CON/OS/BUT/CC/05/6

EXECUTE BUILDING TEMPORARY WORKS

July/August 2024



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

WRITTEN ASSESSMENT

TIME: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper has **TWO** sections **A** and **B**. Attempt questions in each section as per instructions given in the section.
2. You are provided with a separate answer booklet.
3. Marks for each question are indicated in the brackets.
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 pages are missing.

SECTION A: (40 MARKS)

Attempt all questions in this section.

1. Briefly describe the following terms as used in temporary works: (3 marks)
 - a. Putlogs
 - b. Boarding:
 - c. Guard Rail
2. Concrete formwork can be made up of different materials. List four tools and materials used in the fabrication of a column formwork. (4 marks)
3. Scaffolds support access and provide working platforms. Give any four safety tips to be observed when using scaffolds. (4 marks)
4. Plunking and strutting are placed to cater for unforeseen risks. Outline four factors that govern the choice of plunking and strutting to be done to an excavated trench. (4 marks)
5. Formwork is a temporary construction; however, care must be taken to prevent damage to permanent work. State five requirements of a good formwork. (5 marks)
6. Steel formwork is preferred to timber formwork. Outline four reasons for this. (4 marks)
7. Shoring in construction is a temporary structure. In which four situations are shores needed in a building? (4 marks)
8. Which four water absorbing materials can be used in formwork to curb water evaporation during curing? (4 marks)
9. When trenches are excavated for works such as foundations or drain laying, the sides may have to be supported. Highlight the three soil conditions that may necessitate timbering. (3 marks)
10. Formwork can be categorized based on usage. Give three types of formworks based on their uses. (3 marks)
11. Shoring systems are an essential part of construction and engineering projects. Give two types of shoring materials. (2 marks)

SECTION B: (60 MARKS)

This section consists of four (4) questions.

*Attempt any **THREE** questions. All questions carry equal marks.*

12. The method of excavation and timbering to be used will depend upon a number of factors.
- Discuss five factors affecting the choice of excavation and timbering. (10 marks)
 - Explain five safety precautions to be observed when undertaking trench excavations. (10 marks)
13. Scaffolding is a temporary structure to support the original structure as well as workmen use it as a platform to carry on the construction works.
- With aid of a diagram explain any five components of a scaffold. (15 marks)
 - What are some five causes that may contribute to the failure of scaffolds? (5 marks)
14. Shoring is the construction of a temporary structure to support temporarily an unsafe structure.
- Describe five factors to be considered when erecting raking shores. (10 marks)
 - Outline three main differences between timbering and shoring. (6 marks)
 - Explain two reasons for underpinning in building construction. (4 marks)
15. Formwork is a temporary construction; however, care must be taken to prevent damage to permanent work.
- Discuss five factors to consider when designing formwork. (10 marks)
 - Highlight five factors affecting concrete formwork striking time. (10 marks)

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