

073206T4BLD

BUILDING TECHNICIAN LEVEL 6

CON/OS/BUT/CC/05/6

Execute Building Temporary Works

July/August 2025



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

WRITTEN ASSESSMENT

Time: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. Marks for each question are indicated in the brackets.
2. The paper consists of **TWO** sections: **A** and **B**.
3. Candidates are provided with a separate answer booklet
4. **DO NOT** write on this question paper.

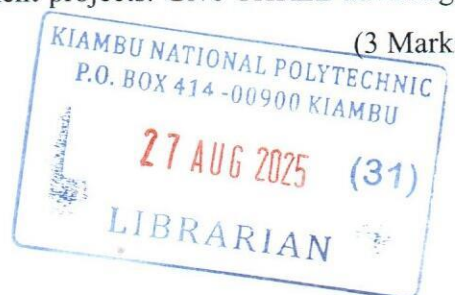


This paper consists of FIVE (5) printed pages
Candidates should check the question paper to ascertain that all
pages are printed as indicated and that no questions are missing.

SECTION A (40 MARKS)

Answer ALL the questions in this section.

1. Erecting and dismantling a building scaffold involves being exposed to safety hazards, and hence the need for Personal Protective Equipment (PPE). List FOUR PPEs worn while working in high high-rise building. (4 Marks)
2. Formwork made of different materials is erected during construction based on the structure's complexity. Mention any THREE types of formwork material. (3 Marks)
3. Formwork is used to give shape and temporary support to cast-in-place concrete until it hardens. Identify FOUR types of formworks used during construction. (4 Marks)
4. Trench timbering involves the use of timber for temporary supports and stabilizing the walls of an excavation. Identify FOUR materials and tools used in trench timbering. (4 Marks)
5. The design and materials used for each type of shore will depend on the magnitude of the load, the nature of the instability, and the site conditions. Highlight any TWO materials used for shoring. (2 Marks)
6. Shores are crucial during various construction activities. Give THREE types of shore. (3 Marks)
7. Scaffolding is a temporary structure used to support workers and materials during the construction, maintenance, or repair of buildings. State THREE types of scaffolding. (3 Marks)
8. Dismantling formwork for a reinforced concrete slab in a multi-story building project follows a typical sequence. Outline FOUR sequence of dismantling formwork for a reinforced concrete slab. (4 Marks)
9. Concrete formwork for various structural elements is temporary. Identify any THREE factors that determine when the dismantling of formwork can safely commence. (3 Marks)
10. A demolition plan outlines the process for safely and efficiently tearing down a building or structure. State THREE importance of a demolition plan. (3 Marks)
11. While erecting, using, or dismantling a scaffold, there are potential risks and safety hazards involved. Mention any FOUR hazards associated with working on or around building scaffolds. (4 Marks)
12. Quick stage is a type of system scaffolding that is versatile and robust, commonly used for various construction, maintenance, and refurbishment projects. Give THREE advantages of the quick stage. (3 Marks)



SECTION B (60 MARKS)*Answer Any THREE Questions in This Section*

13. As a building technician, you will be executing temporary works such as formwork at the construction site regularly. When selecting materials for formwork, you will have to consider several practical and structural factors to ensure efficiency, safety, and cost-effectiveness.
- Explain any FOUR factors to consider while selecting formwork material. (8 Marks)
 - Describe any FOUR specific checks that should be performed on erected formwork before concrete pouring begins. (8 Marks)
 - Discuss any THREE challenges encountered during the dismantling of formwork. (6 Marks)
14. Swafi contractor has been contracted to build a 6-storey commercial building. Currently, at the construction phase of the construction scaffolding is required to provide temporary support to workers and materials during the construction.
- Describe FOUR safety measures that should be implemented when erecting or dismantling scaffolds near or over public access areas. (8 Marks)
 - Explain THREE common challenges faced during scaffold erection on a high-rise building project in Kenya. (6 Marks)
 - Outline SIX steps followed during dismantling the scaffold. (6 Marks)
15. You have been contracted as a building technician for an earthwork project. During the excavation of trenches, you find out that the sides of the trenches are collapsing, and there is a need for a temporary support system to stabilize the sides of the excavations for safety.
- Discuss FOUR methods of trench timbering that you use. (8 Marks)
 - Explain any THREE factors affecting the method of constructing trench timbering. (6 Marks)
 - Using THREE steps, describe the construction process of trench timbering after excavation begins to a certain depth. (6 Marks)
16. During the renovation of a 4-storey heritage building, workers noticed that a load-bearing brick wall on the second floor posed a high risk of collapse, and shoring was required.
- Outline FOUR purposes of shoring in building. (4 Marks)
 - Explain FOUR stages that you will follow while erecting the building shores at the site. (8 Marks)
 - Describe the process of dismantling the building shores. (8 Marks)

