

**073206T4BLD**

**BUILDING TECHNOLOGY LEVEL 6**

**CON/OS/BUT/CR/06/6**

**Execute Superstructure Works**

**November/December 2025**



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

**WRITTEN ASSESSMENT**

**TIME: 3 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. Effective drainage is crucial for flat roofs. Highlight THREE causes of water ponding on a flat roof. (3 Marks)
2. Formwork must be robust and precise. Define the following terms as used in formwork construction. (4 Marks)
  - a. Waling
  - b. Tie rod
3. Mortar in masonry construction binds blocks and provides stability. List THREE properties of a good mortar mix. (3 Marks)
4. Concrete curing is critical for strength development. Outline THREE reasons why concrete must be cured. (3 Marks)
5. Non-loadbearing interior walls can be built from different materials. Give THREE common materials used for partition walls. (3 Marks)
6. Compaction affects the quality of a concrete structure. Highlight FOUR advantages of compaction during concreting of a column. (4 Marks)
7. Different clients prefer different roofing materials. List THREE common materials used as roof covering. (3 Marks)
8. Plumbing fixtures selection is key for finishes. Name THREE plumbing fixtures found in a bathroom. (3 Marks)
9. Column kickers are used in the construction process of columns. State any THREE functions of column kickers. (3 Marks)
10. Roofing material selection is a major design decision. Identify FOUR factors that must be considered when choosing roofing materials. (4 Marks)
11. During the construction of a building's superstructure, various fittings and accessories are installed to the superstructure walls. Mention any FOUR types of wall fittings. (4 Marks)
12. Damp proof courses is a layer in a masonry wall. Outline THREE methods of installing DPC a masonry wall. (3 Marks)

**SECTION B: (60 MARKS)**

*Answer any THREE questions in this section*

13. Mrs. Sarah has contracted you as a building technician to construct a traditional masonry fireplace in her new home.
- a. Sketch and label any EIGHT parts of a chimney fireplace. (12 Marks)
  - b. Discuss the functions of any FOUR elements of a fireplace. (8 Marks)
14. As a building construction consultant a client has approached you for advice on design of the reinforced concrete structural frames.
- a. Describe FOUR functional requirements of a reinforced concrete beam. (8 Marks)
  - b. Explain THREE factors to consider when selecting formwork for a concrete column. (6 Marks)
  - c. Discuss THREE methods of concrete curing. (6 Marks)
15. Roof design considerations should be compliant with local regulations and project specific needs.
- a. Describe FIVE factors to consider when selecting roof trusses. (10 Marks)
  - b. Explain FIVE advantages of using prefabricated roof trusses. (10 Marks)
16. Understanding different wall types is essential for superstructure works.
- a. Explain the following types of walls. (8 Marks)
    - i. Curtain wall
    - ii. Parapet wall
    - iii. Load-bearing wall
    - iv. Shear wall
  - b. Describe THREE differences between cavity and a solid wall. (6 Marks)
  - c. Discuss any THREE bonding methods used in walling. (6 Marks)