

073206T4BLD

BUILDING TECHNOLOGY LEVEL 6

CON/OS/BUT/CR/03/6/A

Produce Masonry Units

March/April 2025

KIAMBU NATIONAL POLYTECHNIC
P.O. BOX 414-00900 KIAMBU

15 MAY 2025 (31)

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

WRITTEN ASSESSMENT

Printed By: The Kiambu National Polytechnic

Date: 31.03.2025 11:57 AM

Time: 3 HOURS

INSTRUCTIONS TO CANDIDATE

1. This paper consists of **TWO** sections: **A** and **B**.
2. Attempt **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

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)

Attempt ALL the questions in this section.

1. Burning of bricks is a crucial step during the manufacturing process. State THREE ways in which different temperatures affect burning of bricks. (3 Marks)
2. Green bricks contain about 7–30% moisture depending upon the method of manufacture. State THREE reasons why drying is an important step in brick production. (3 Marks)
3. Concrete is a composite material that is made up of different raw materials. List THREE main constituents of concrete. (3 Marks)
4. Curing is the process of wetting concrete surfaces to promote the hardening of cement. Outline FOUR common methods of curing concrete. (4 Marks)
5. During the batching step of concrete production, different quantities of each concrete constituent are measured. Name THREE batching methods used during concreting. (3 Marks)
6. Various conditions govern the selection of building stones for structural purposes. Give FOUR factors that influence the selection of good building stones. (4 Marks)
7. The mixing operation consists of rotation or stirring of concrete. State FIVE types mixers used for concrete mixing. (5 Marks)
8. Burning is one of the several steps undertaken when producing bricks. List FOUR purposes of burning during brick production. (4 Marks)
9. Packaging of clay products is guided by various aspects. List FOUR factors considered when packaging clay products. (4 Marks)
10. Moulds are essential in giving shape and size to the brick. Name THREE materials used to make a brick mould. (3 Marks)
11. Cutting stones to required shape for use during dressing involves use of specialized dressing tools. Identify FOUR tools used in dressing of stones. (4 Marks)



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

12. Dressing is an art of cutting stones to the required shape and size for use in structures. A quarried stone has rough surfaces, which are dressed to obtain a definite and regular shape.
- Explain FIVE types of stone dressing finishes. (10 Marks)
 - Describe FIVE factors influencing the dressing process. (10 Marks)
13. Each stage in the manufacturing process of bricks plays a crucial role in the overall quality and suitability of the bricks for construction purposes.
- Explain the production process of brick production. (10 Marks)
 - Explain FIVE factors affecting the quality of brick. (10 Marks)
- 14.
- Clay can be used to produce different types of clay products depending on the usage and application. Explain FIVE types of clay products and their use. (10 Marks)
 - Bricks absorb water by capillary action through their pores which can affect their durability. Describe the water absorption test of a brick. (10 Marks)
15. During the production of precast concrete products, moulds are used to give the required shape.
- Explain FIVE key steps involved in the proper placement of concrete into molds justifying the impact of each step. (10 Marks)
 - Describe FIVE steps followed in dismantling and storing of moulds. (10 Marks)



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