higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

BRICKLAYING AND PLASTERING THEORY N1

(11010091)

22 November 2022 (X-paper)
09:00–12:00

Drawing instruments may be used.

This question paper consists of 5 pages.

122Q1E2222

Copyright reserved

DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
BRICKLAYING AND PLASTERING THEORY N1
TIME: 3 HOURS
MARKS: 100

INSTRUCTIONS AND INFORMATION

1. Answer all the questions.
2. Read all the questions carefully.
3. Number the answers according to the numbering system used in this question paper.
4. Use only a blue or black pen.
5. Drawings should be clear, neat, in good proportion and may be done in pencil.
6. Write neatly and legibly.

Copyright reserved

QUESTION 1

1.1 Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (1.1.1–1.1.5) in the ANSWER BOOK.

1.1.1 Which tool can be found in a brick-cutting tool kit?

A Long joint
B Comb chisel
C Brick trowel
D Spirit level

1.1.2 Which tool is used in bricklaying?

A Long jointer
B Comb chisel
C Brick trowel
D Scraper

1.1.3 Which tool is used for plastering?

A Block brush
B Scraper
C Comb chisel
D Claw hammer

1.1.4 Which tool is a setting-out tool?

A Gauging trowel
B Scraper
C Steel square
D Claw hammer

1.1.5 Which tool is used in jointing?

A Cove trowel
B Pointing trowel
C Club hammer
D Spirit level

(5 × 1) (5)

1.2 State THREE ways to care for tools. (3)

1.3 State FIVE points to consider when choosing a spirit level. (5)

1.4 Name FIVE tools that are found in the tiler's tool kit. (5)

1.5 Make a neat sketch of a serrated-edge trowel. (2)

[20]

QUESTION 2

Use scale of 1 : 10 to draw the alternate plan courses of a cross junction in a one-brick wall built in English bond. **[20]**

QUESTION 3

3.1 There are physical properties of firebricks that can be readily determined.

Name THREE physical properties of firebricks. (3)

3.2 What are THREE characteristics of good building stone? (3)

3.3 Name FIVE types of cement. (5)

3.4 Briefly explain how lime is produced. (5)

3.5 Segregation is probably one of the most common of all causes of poor quality concrete.

Name FOUR main factors that contribute to segregation. (4)
[20]

QUESTION 4

4.1 Name TWO ways in which porous stone can be destroyed. (2)

4.2 Briefly describe hand-mixing of concrete. (10)

4.3 Make neat sketches to illustrate the following:

4.3.1 A true slump or natural slump

4.3.2 A collapsed slump

4.3.3 A shear slump

(3 × 2) (6)

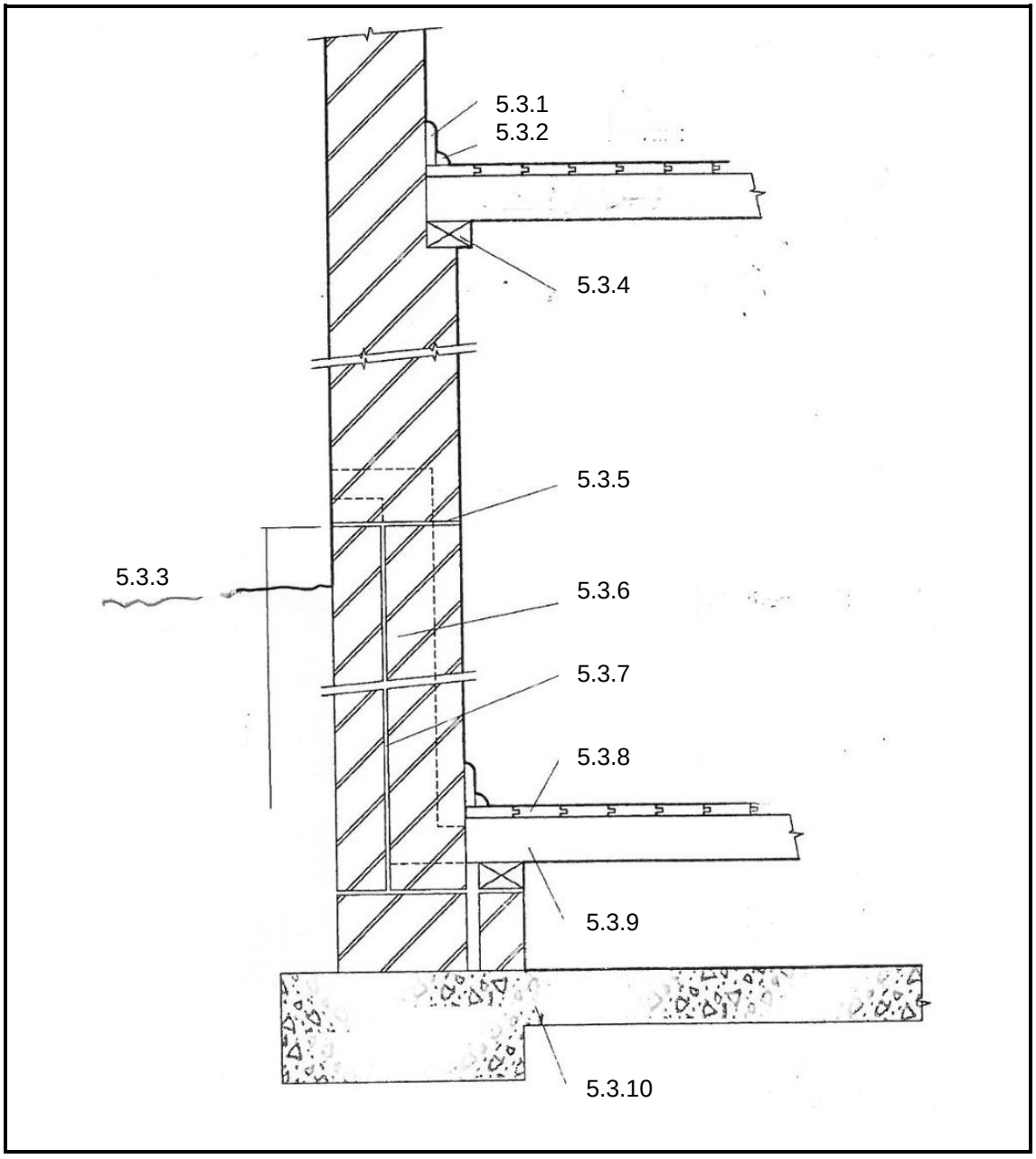
4.4 Define the term *concrete*. (2)
[20]

QUESTION 5

5.1 Explain the term *cavity wall.* (3)

5.2 Name FIVE types of arches used in the building industry. (5)

5.3 Complete the following drawing by filling in the correct word from (5.3.1–5.3.10). Write only the word next to the correct number.



(10 × 1) (10)

5.4 What do you understand by the term *segregation*? (2)

[20]

TOTAL: 100

Copyright reserved