higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

BRICKLAYING AND PLASTERING THEORY N1

(11010091)

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09:00–12:00

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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. Sketches must be large, neat and fully labelled.
5. Write neatly and legibly.

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QUESTION 1

1.1 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'True' or 'False' next to the question number (1.1.1–1.1.10) in the ANSWER BOOK.

1.1.1 A steel square is also called a builder's square.

1.1.2 A spirit level is an instrument designed to indicate whether a surface is level or plumb.

1.1.3 A gauge rod is a curved piece of timber, marked off at regular intervals.

1.1.4 A hand hawk is used to carry plastering mortar.

1.1.5 A block brush is used to wet a wall when floating.

1.1.6 Long jointers are used to finish off the vertical joints.

1.1.7 Wooden floats are used to finish float plaster or concrete surfaces.

1.1.8 Mortar is a mixture of sand, stone, cement and water.

1.1.9 The key brick is the centre of the circle of intrados and extrados.

1.1.10 The crown is the highest point on the extrado.

(10 × 1) (10)

1.2 A tiler requires a variety of tools in order to fix tiles onto walls and floors.

Name FIVE tools that can be used by a tiler for doing tiling. (5)

1.3 State THREE ways in which hand tools should be cared for. (3)

1.4 Give the function of a short jointer. (2)

[20]

QUESTION 2

2.1 A slump test is conducted to measure the workability of concrete and test for the consistency of the concrete throughout the job.

Name FIVE materials that will be required when performing a slump test. (5)

2.2 Briefly explain the procedure to mix concrete with a machine. (5)

2.3 Name TWO methods of compaction. (2)

2.4 Explain the following terminology used in civil engineering:

2.4.1 Curing

2.4.2 No-fines concrete

2.4.3 Compaction

2.4.4 Batching of concrete

(4 × 2) (8)

[20]

QUESTION 3

3.1 Briefly explain the procedure to plaster and float a blank wall. (8)

3.2 State TWO reasons why building lime is added to cement mortar. (2)

3.3 Explain the difference between *plastering* and *rendering*. (4)

3.4 Name THREE types of plaster. (3)

3.5 Name THREE defects found in plasterwork. (3)

[20]

QUESTION 4

4.1 Admixtures are substances other than cement, water and aggregate are added to the mixture immediately before or during mixing to change the property of the mixture.

Give FIVE reasons why admixtures may be used. (5)

4.2 Name FIVE materials that can be used for damp-proof courses. (5)

4.3 Define the term *control joint.* (2)

4.4 Explain the difference between a *single-leaf wall* and a *double-leaf wall*. (4)

4.5 State any FOUR properties of a good quality clay brick. (4)

[20]

QUESTION 5

Draw to scale 1:10 the alternate plan course of a one-and-half brick T-junction in Flemish bond. **[20]**

TOTAL: 100

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