higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T80**(E)**(A6)T

NATIONAL CERTIFICATE

BRICKLAYING AND PLASTERING THEORY N2

(11010102)

6 August 2019 (X-Paper)
09:00–12:00

Drawing instruments may be used.

This question paper consists of 6 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
BRICKLAYING AND PLASTERING THEORY N2
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. Write neatly and legibly.

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QUESTION 1

Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'True' or 'False' next to the question number (1.1–1.10) in the ANSWER BOOK.

1.1 Corner beads are used to reinforce all exterior plastered corners.

1.2 Tilers' hammers have steel heads ranging from 450 grams to 900 grams.

1.3 Aggregates are materials such as cement, clay soils and loamy soils.

1.4 The size of bays should not exceed 1.0 square metre in an area.

1.5 A running mould is an implement used for forming mouldings in soft plaster, by passing it along or over the plaster.

1.6 Claw hammers have two sharp edges which are used to make holes in glazed tiles.

1.7 A trestle is the part of the wall that forms the back of a fireplace.

1.8 Ensure that the area where the scaffolding is to be erected is level and free of obstructions.

1.9 Clay pavers should be solid, hard-fired and made to a close tolerance.

1.10 Metal scaffolding is a self-supporting stand for boards to make a working platform.

(10 × 1) **[10]**

QUESTION 2

Complete the following paragraph regarding LAYING THE FINISH by using the words in the list below. Write only the word next to the question number (2.1.1–2.1.10) in the ANSWER BOOK.

sand slurry; 16 mm; strips; level; depth; mortar screed; terrazzo; trowelling; cement; temperature; compacted; thickness; tamping

2.1 A 1:1 cement and 2.1.1 ... is brushed over the area of the cleaned floor slab, and is to be completed in one single operation. The cement mortar screed is then spread and 2.1.2 ... to within at least 2.1.3 ... of the finished floor level. Unless the 2.1.4 ..., dividing the finish into bays have been fixed previously, the strips are then set into the mortar screed, to the required 2.1.5 ... and to a 2.1.6 … that is preferable of the full 2.1.7 ... of the screed. While the 2.1.8 … is still plastic, the 2.1.9 ... mix is spread in the bays, to a level slightly above that of the dividing strips and compacted by lightly 2.1.10 ... or rolling with the aid of a solid roller. 2.1.11 ... may be necessary to produce a true surface (depending upon the rate of set of the 2.1.12 ... and the 2.1.13 ... prevailing at the time of laying). Excessive trowelling should be avoided, especially at the early stages. (13)

2.2 Define the term *entasis.* (2)
[15]

QUESTION 3

3.1 Name the THREE parts of which a column consists. (3)

3.2 Draw to scale 1:10, the alternate plan courses of an isolated pier in two-brick Flemish bond. (10)

3.3 Draw to scale 1:10, the alternate plan courses of an isolated pier in two-brick English bond. (10)
[23]

QUESTION 4

4.1 Certain preventative measures are necessary when building on termite-invested ground.

Briefly explain the precautions to be taken before and during building operations. (5)

4.2 Give a description of the essential points a fireplace written by Count Rumford. (4)

4.3 Define the term *rough arch*. (4)
[13]

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QUESTION 5

5.1 Choose a word from COLUMN B that matches a description in COLUMN A. Write only the letter (A–K) next to the question number (5.1.1–5.1.10) in the ANSWER BOOK.

COLUMN A		COLUMN B	
5.1.1	Incline from the perpendicular, taper	A	width of one brick
5.1.2	The curve when forming a segmental arch	B	throat
5.1.3	The part of a fireplace between the gathering and the flue	C	batter
5.1.4	The weathering to the top of the chimney, usually of cement and tiles or slates	D	weathering
5.1.5	To render the inside of a flue with lime-and-cement mortar	E	party wall
5.1.6	The slope given to a horizontal surface to create a run-off for water	F	camber
5.1.7	The partition between two flues in the same stack	G	flaunching
5.1.8	Applying a coat of plaster to brick or stonework	H	gathering
5.1.9	The wall between two houses in which each has an equal interest	I	parget
5.1.10	The upper part of a fireplace that gets smaller as it ascends to the size of a flue	J	rendering
		K	corbel

(10 × 1) (10)

5.2 Explain the method of laying a terrazzo slab. (10)

[20]

QUESTION 6

Make a neat, labelled cross-sectional sketch of a 280 mm cavity wall. Your sketch must include the following detail:

- Concrete strip foundation
- Inner and outer skin of brick wall
- Cavity-filled solid
- All DPC in place
- Galvanised wall ties with drip
- Ground floor level
- Hard core
- Concrete slab
- Weep holes **[10]**



QUESTION 7

Name NINE components or parts of scaffolding. **[9]**

TOTAL: 100

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