



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T20(E)(N22)T
NOVEMBER EXAMINATION

NATIONAL CERTIFICATE

BRICKLAYING AND PLASTERING THEORY N2

(11010102)

22 November 2016 (X-Paper)
09:00–12:00

Drawing instruments may be used.

This question paper consists of 6 pages and 2 diagram sheets.

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.
-

QUESTION 1

Choose an item from COLUMN B that matches a description in COLUMN A. Write only the letter (A–L) next to the question number (1.1–1.10) in the ANSWER BOOK.

COLUMN A		COLUMN B	
1.1	Offers a better key for plaster mortar	A	wood-wool slabs
1.2	Interior metal lath	B	corner beads, screeds
1.3	Recommended for use over old plaster	C	slipper, plate, stock
1.4	Accessories used with metal laths	D	wall boards
1.5	They vary from 6,4 mm – 12,7 mm in thickness	E	chicken mesh
1.6	Made from furnace clinkers and cement	F	gypsum boards
1.7	Made from broken bricks and rubble	G	collars
1.8	One against the wall and one against the ceiling	H	pumice blocks
1.9	Boards are fire, vermin and rot proof	I	diamond mesh
1.10	Parts of a running mould	J	metal lathing
		K	breeze blocks
		L	Scotch bracketing

(10 × 1)

[10]

QUESTION 2

2.1 FIGURE 1 (DIAGRAM SHEET 1) shows course 1 of a TWO-AND-A-HALF brick right-angled corner in English bond.

Draw to a scale of 1 : 10 the alternating plan (course 2) of the given sketch in the ANSWER BOOK. (10)

2.2 FIGURE 2 (DIAGRAM SHEET 2) shows course 2 of a TWO-AND-A-HALF brick right-angled corner in Flemish bond.

Draw to a scale of 1 : 10 the alternating plan (course 1) of the given sketch in the ANSWER BOOK. (10) [20]

QUESTION 3

3.1 Briefly explain what will happen to an area that is poorly paved. (3)

3.2 Name TWO materials and TWO tools that will be specifically needed before any tiling work can commence. (4)

3.3 What is the recommended thickness of the screed below the terrazzo on the following:

- 3.3.1 Floor finishes
- 3.3.2 Stair treads
- 3.3.3 Skirting
- 3.3.4 Stair risers
- 3.3.5 Stair strings

(5 × 1) (5)

3.4 Explain what is meant by *curing the terrazzo*. (2) [14]

QUESTION 4

4.1 Give a detailed description of how silica bricks are manufactured. (7)

4.2 Name FOUR external factors that may cause a chimney to smoke. (4)

4.3 Briefly explain the difference between the following:

- 4.3.1 Chimney shaft
- 4.3.2 Chimney back

(2 × 2) (4) [15]

QUESTION 5

Draw to a scale of 1 : 10 the vertical section through a 270 mm cavity wall construction.

Show the following details:

- Concrete strip foundation 600 mm × 200 mm.
- Concrete floor slab 75 mm
- Screed 25 mm
- Hard core 150 mm
- Internal plaster 19 mm
- Ground level
- D.P.C. at floor level height
- Wall ties
- Cavity filled with concrete
- Weep hole

[20]**QUESTION 6**

- 6.1 Complete the following sentences by using the words in the list below. Write only the word next to the question number (6.1.1–6.1.4) in the ANSWER BOOK.

double; bottom; sideways; top; length; height; constant; accuracy; end

The most satisfactory results on the setting out of an entasis are obtained by means of a method known as 'The use of (6.1.1) ... distances'. Mark off the (6.1.2) ... and the (6.1.3) ... diameters as well as the (6.1.4) ... of the column. (4)

- 6.2 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'true' or 'false' next to the question number (6.2.1–6.2.6) in the ANSWER BOOK.

6.2.1 A column is an upright shaft generally rectangular or round.

6.2.2 A pilaster and a pier can serve the same purpose.

6.2.3 Entasis is a load-bearing brickwork between openings.

6.2.4 The outward swelling in the shaft is known as architrave.

6.2.5 Tall fluted columns do not require intermediate flute collars.

6.2.6 Columns are made of steel, bricks, stone or concrete.

(6 × 1)

(6)

[10]

QUESTION 7

- 7.1 What is *trestle scaffold*? (1)
- 7.2 List SEVEN steps to follow when dismantling trestle scaffolding. (7)
- 7.3 Give ONE function of each of the following scaffolding components:

7.3.1 Base plates

7.3.2 Base jacks

7.3.3 Toe board

(3 × 1) (3)
[11]

TOTAL: 100

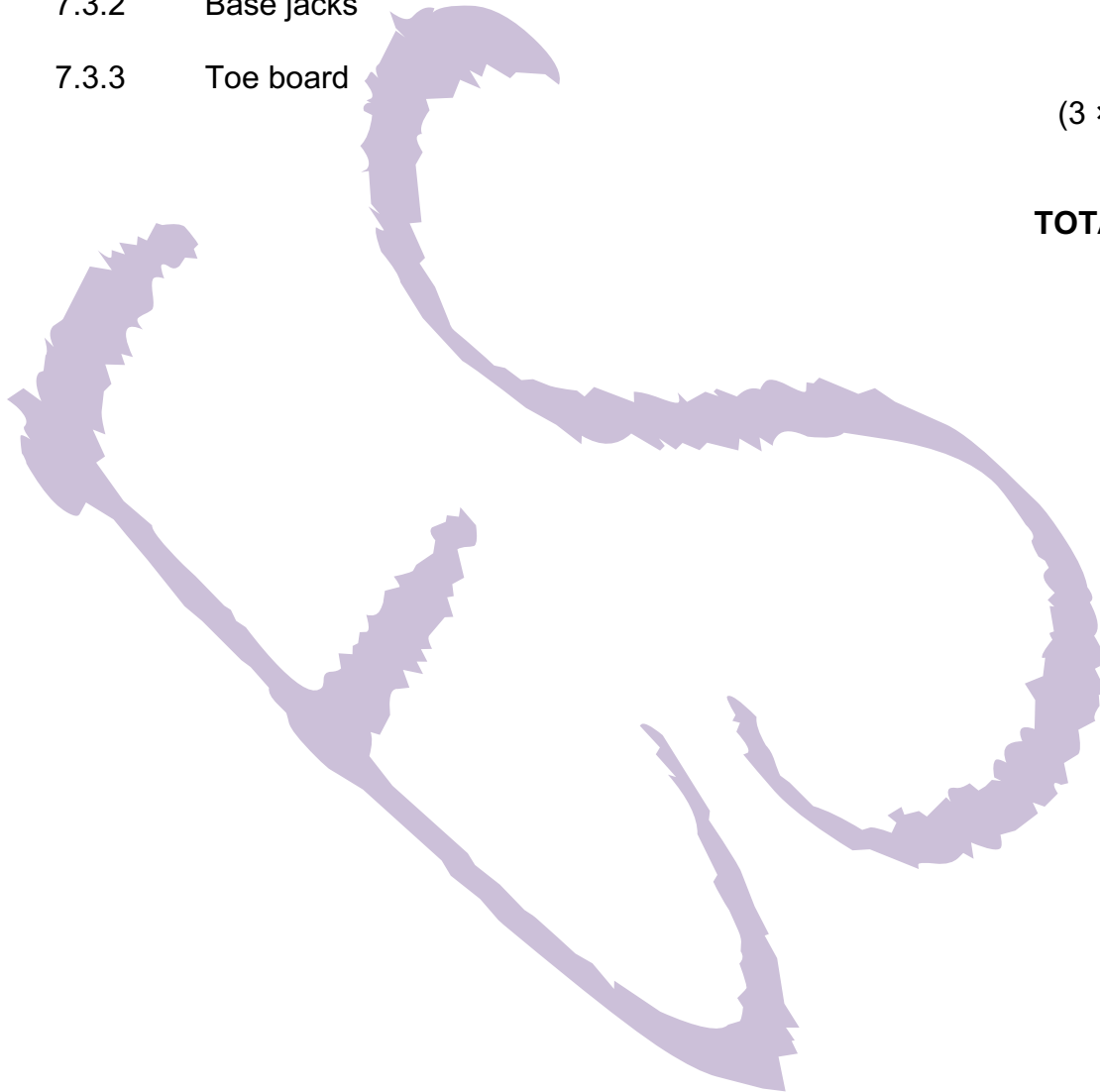


DIAGRAM SHEET 1

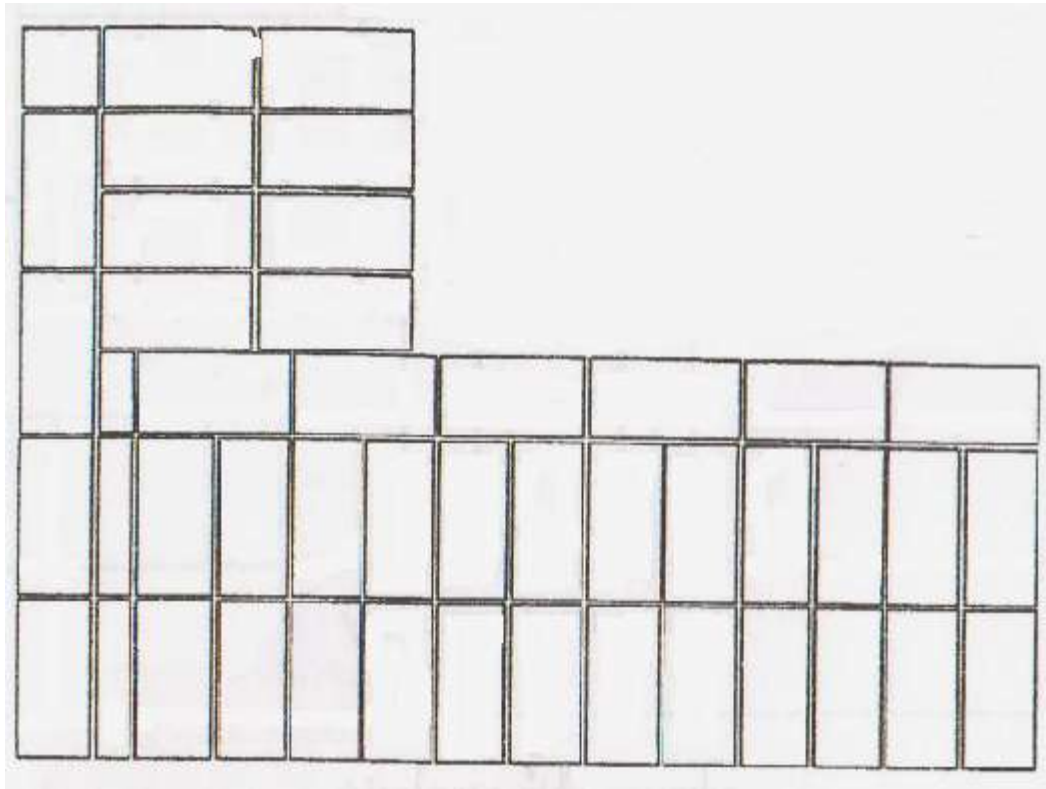


FIGURE 1

DIAGRAM SHEET 2

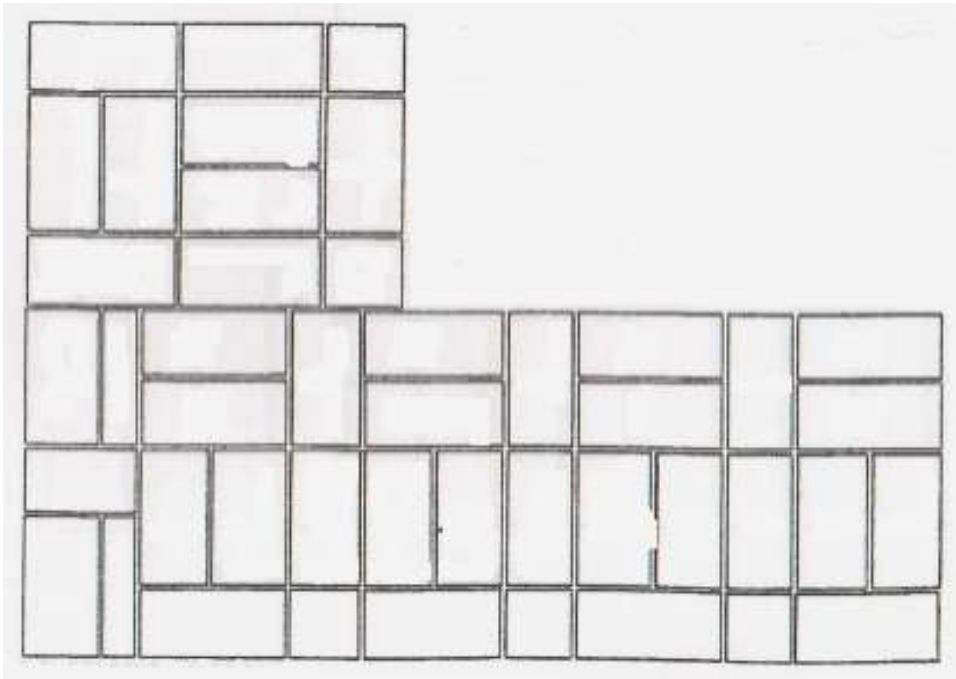


FIGURE 2