



# 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

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**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**

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.

| <b>COLUMN A</b> |  | <b>COLUMN B</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]**

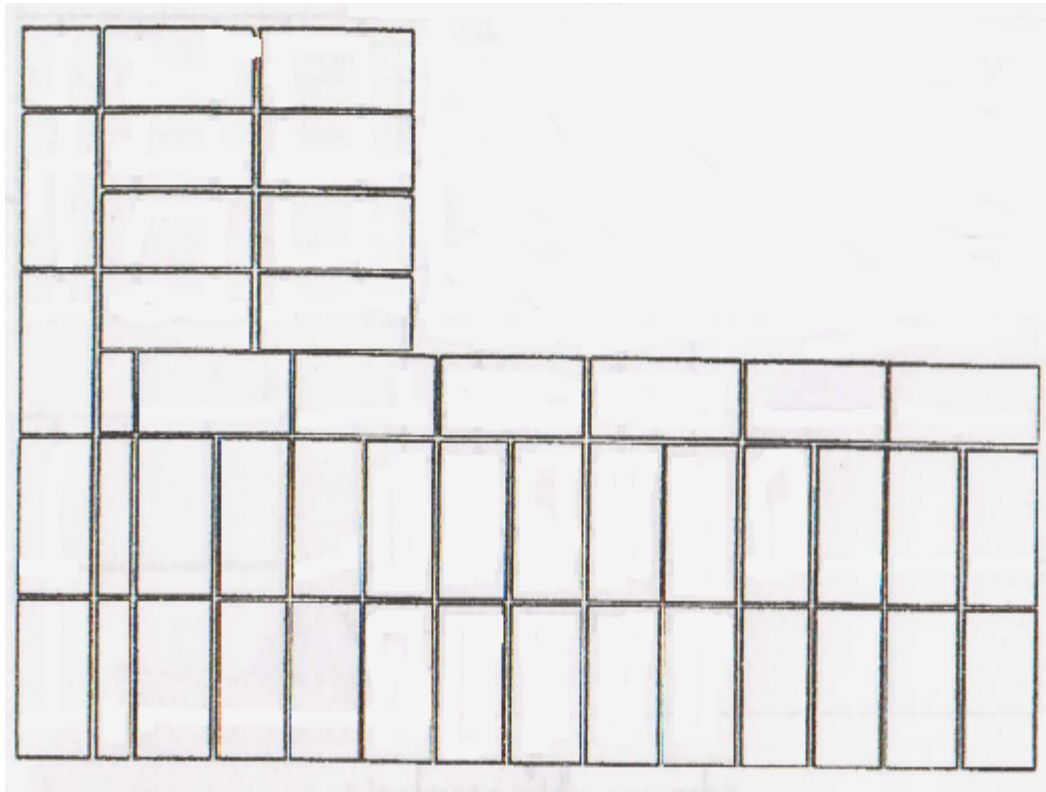
**QUESTION 7**

- 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]

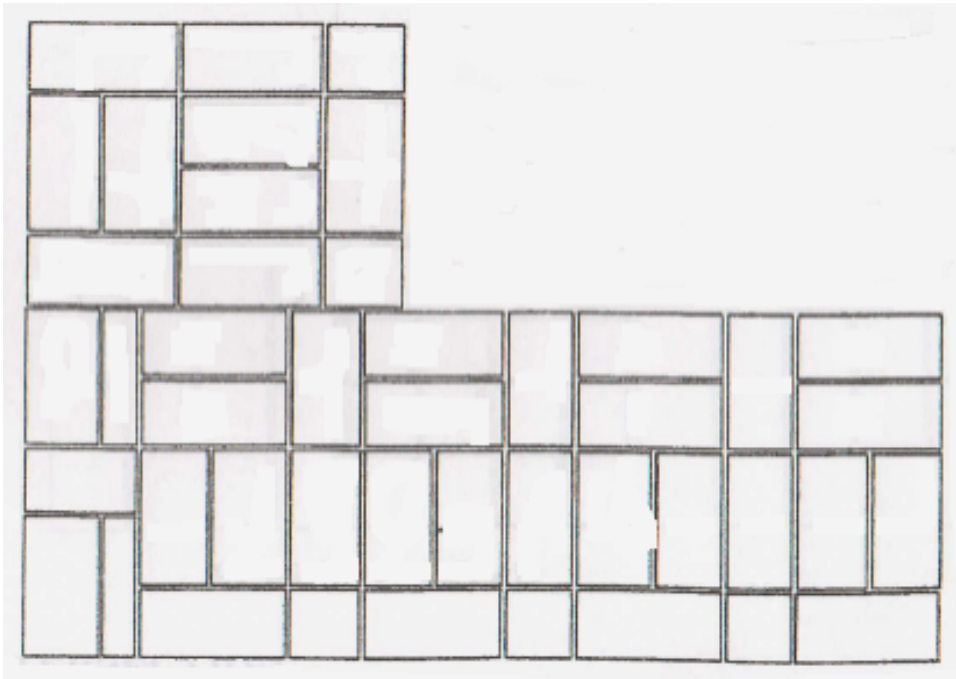
**TOTAL: 100**

**DIAGRAM SHEET 1**



**FIGURE 1**

**DIAGRAM SHEET 2**



**FIGURE 2**