higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

BRICKLAYING AND PLASTERING THEORY N2

(11010102)

1 December 2023 (X-paper)
09:00–12:00

Drawing instruments may be used.

This question paper consists of 7 pages.

183Q1G2301

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
BRICKLAYING AND PLASTERING 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. All the drawings must be drawn to the required scale.
5. Use your own discretion where dimensions are not given.
6. Use only a black or blue pen.
7. Write neatly and legibly.

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QUESTION 1

1.1 Explain *resource-oriented scheduling.* (2)

1.2 List THREE common scheduling tools that are used in construction planning. (3)

1.3 When planning a Gantt chart for a project, certain elements must be shown.

State any FOUR elements to be shown on a Gantt chart. (4)

1.4 State any FOUR advantages of using concrete blocks. (4)

1.5 Name TWO methods of moulding used to manufacture concrete blocks. (2)

[15]

QUESTION 2

2.1 Complete the following paragraph by choosing a word or words from the list below. Write only the answer next to the question number (2.1.1–2.1.5) in the ANSWER BOOK.

uniformly; toppling over; two; displacement; evenly

Bracing prevents swaying and (2.1.1) … . Ties are used to fasten the scaffold to a rigid body, thus preventing it from (2.1.2) ... . Base plates ensures that loads are spread (2.1.3) ... on the sole plates. Sole plates distribute the scaffold load more (2.1.4) ... over a larger area than the base plate only. Sole plates should be level and should support the (2.1.5) ... standards. (5)

2.2 Define the terminology as used in B.P.T. N2 based on shoring and brick bonding.

2.2.1 Dogs

2.2.2 Wedge

2.2.3 Needles

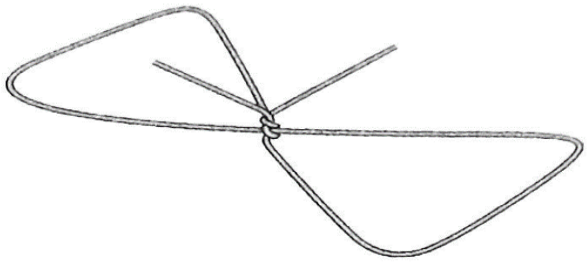
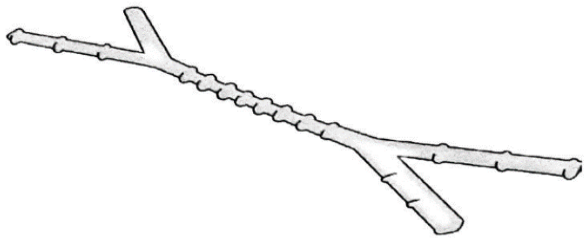
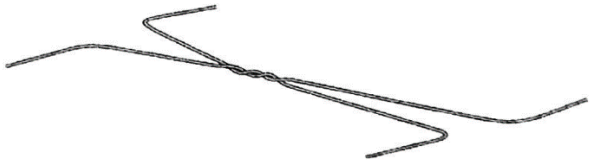
2.2.4 Toothing

2.2.5 Racking back

(5 × 2) (10)

2.3 The drawings below show different types of wall ties used in cavity walls.

Name the type of ties shown in (2.3.1–2.3.4)

2.3.1	
2.3.2	
2.3.3	
2.3.4	

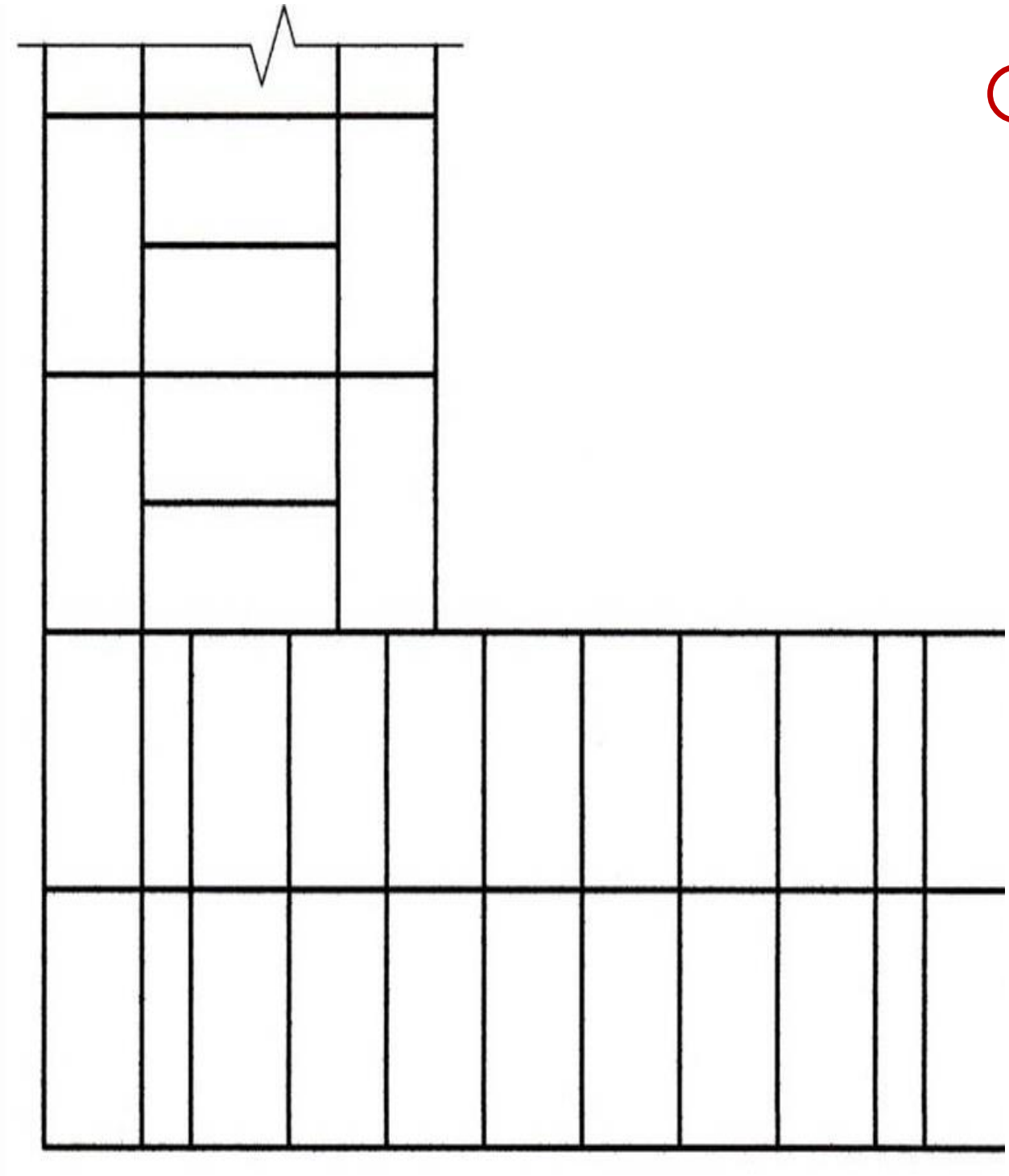
(4)

2.4 State FOUR common accidents caused when using ladders. (4)

[23]

QUESTION 3

The diagram below shows (COURSE 1) of the alternate plan course of a two-brick corner built in English bond with stopped end at one-wall end.



COURSE 1

Draw to scale 1:10 the alternate plan (COURSE 2) of the given diagram above. **[10]**

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QUESTION 4

4.1 State FIVE characteristics of terrazzo flooring. (5)

4.2 State the minimum height of the chimney stack if it passes through the ridge of a roof using standard roofing material. (1)

4.3 Arches are classified into different main groups.

List THREE main groups of arches. (3 × 2) (6)

4.4 Name SIX basic tools used for tiling. (6)

4.5 An angle fireplace may be found in some building designs.

Illustrate by means of a freehand sketch an angle fireplace, showing all construction details. (4)

[22]

QUESTION 5

5.1 Choose a term from COLUMN B that matches a description in COLUMN A. Write only the letter (A–F) next to the question number (5.1.1–5.1.5) in the ANSWER BOOK.

COLUMN A		COLUMN B	
5.1.1	The top of the column which has different elaborated profiles	A	entasis
5.1.2	In architecture this consists of shallow grooves running along a surface	B	base
5.1.3	The lowest part of the column	C	shaft
5.1.4	No less than one-third of the diameter must be built into the wall, and no more than three-quarters may be exposed	D	capital
5.1.5	A long vertical cylinder that may taper slightly so that it is wider at the bottom than at the top	E	engaged
		F	fluted

(5× 1) (5)

5.2 Define the term *metal lathing*. (2)

5.3 List THREE accessories that are used with metal lathing. (3)

5.4 Name any FIVE parts of a running mould. (5)

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5.5 State SIX properties of roof tiles. (6)
[21]

QUESTION 6

6.1 Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (6.1.1–6.1.5) in the ANSWER BOOK.

6.1.1 Clay pavers are cheaper than concrete pavers.

6.1.2 Clay pavers are light and wear with age, while concrete pavers can become cracked or chipped.

6.1.3 Clay pavers resist staining and require less maintenance and cleaning than concrete pavers.

6.1.4 Clay pavers are available in a limited number of colours, shapes, and sizes.

6.1.5 When individual clay pavers have to be replaced, it is easy to find stock that matches the existing paving.

(5 × 1) (5)

6.2 There are various methods of reinforcing concrete blocks depending on the skins used. They may be reinforced either horizontally or vertically.

List TWO methods of reinforcing concrete blocks. (2)

6.3 Describe the purpose of DPC. (2)
[9]

TOTAL: 100

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