higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE

BRICKLAYING AND PLASTERING THEORY N2

(11010102)

5 August 2021 (X-paper)
09:00–12:00

Drawing instruments may be used.

This question paper consists of 6 pages.

191Q1G2105

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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. Only use a black or blue pen.
5. Write neatly and legibly.

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QUESTION 1

Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (1.1–1.10) in the ANSWER BOOK.

1.1 One-centre arch, also known as flat arch:

A Gauged
B Camber
C Semi-elliptical
D Span

1.2 Arch built over lintel on shaped brick core:

A Relieving
B Springing line
C Axed
D Ringed

1.3 Arch normally used where appearance is not important:

A Relieving
B Axed
C Ringed
D Camber

1.4 Underside of arch:

A Span
B Soffit
C Springing line
D Semi-elliptical

1.5 Method used to construct entasis:

A Changing-distance method
B Constant-distance method
C Mixed-distance method
D One-distance method

1.6 Freestanding or attached to wall:

A Pier
B Wall plate
C Pilaster
D Swelling

1.7 Made of concrete, stone, brick or steel:

A Shaft
B Column
C Cap
D Wall plate

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1.8 Type of arch formed by bricks cut to wedge shape from ordinary face bricks:

A Camber
B Ringed
C Relieving
D Axed

1.9 ….in the shaft of the column is called entasis.

A Joint
B Cap
C Swelling
D Span

1.10 Soft bricks known as rubbers rubbed on flat stone and cut to desired shape to form this arch:

A Gauged
B Semi-elliptical
C Camber
D Joint

(10 × 1) **[10]**

QUESTION 2

2.1 Indicate whether the following statements are TRUE or FALSE by writing only 'True' or 'False' next to the question number (2.1.1–2.1.6) in the ANSWER BOOK.

2.1.1 A club hammer is not a brick-cutting tool.

2.1.2 The steel square or mason's square is not a useful tool because a builder can build a square building without a square.

2.1.3 A spirit level is used to ensure that the walls are built straight and plumb.

2.1.4 In an accuracy test the spirit level is placed on a level surface and the position of the bubble is noted.

2.1.5 A club hammer is not heavier than a brick hammer.

2.1.6 A half-tile is used as skirting against a wall to round off edges.

(6 × 1) (6)

2.2 State SIX properties of light-weight concrete. (6)
[12]

QUESTION 3

Choose a term from COLUMN B that matches a description in COLUMN A. Write only the letter (A–L) next to the question number (3.1–3.10) in the ANSWER BOOK.

COLUMN A		COLUMN B	
3.1	Outward swelling on shaft of column	A	paving
3.2	Prevents collapse or movement as result of excavation	B	edge restraints
3.3	Made of dense aggregates such as sand and fine aggregate	C	diamond mesh
3.4	Easy to handle and can be coloured to suit requirements of structure	D	broken bond
3.5	Expanded metal laths	E	blocks
3.6	Recommended for use over old plaster	F	chicken mesh
3.7	Used at joints when 140–190 blocks are used	G	exterior units
3.8	Consists of kerbs and channels	H	entasis
3.9	Either made by clay or concrete masonry products	I	ties
3.10	Final layer upon which paving units are laid	J	bedding surface
		K	column
		L	shoring
	(10 × 1)		**[10]**

QUESTION 4

4.1 Give, in chronological order, the rules for running a mould. (5)

4.2 List SIX types of roof covering materials. (6)

4.3 Name THREE types of metal lathing accessories. (3)

4.4 Give the height above ground level at which damp-proof course (DPC) should be inserted? (2)

4.5 List THREE main types of damp in buildings. (6)

[22]

QUESTION 5

5.1 Draw, to scale 1:10, an alternating plan course of a two-brick obtuse quion's corner in English bond indicated in the figure below.

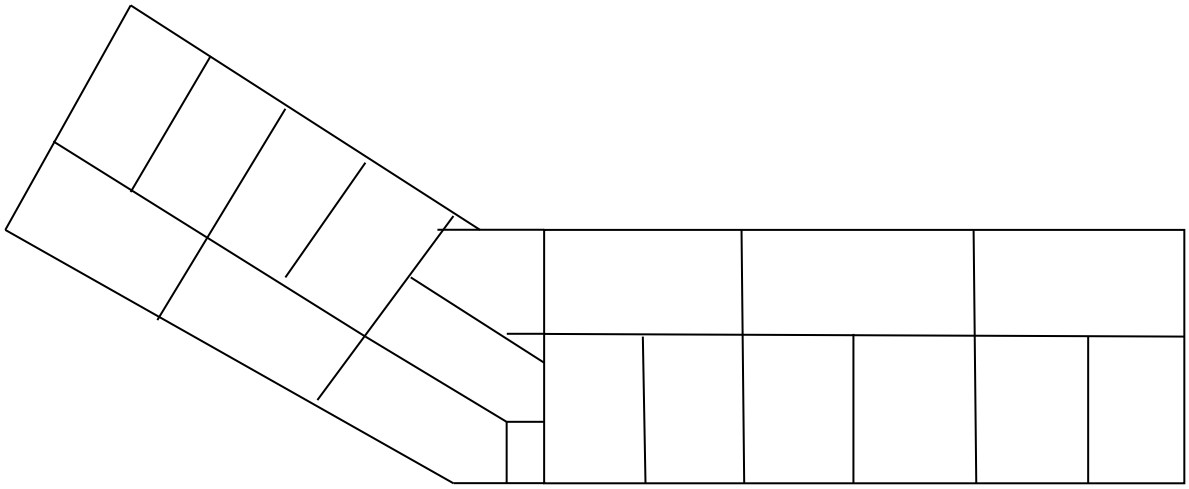

FIGURE (10)

5.2 List NINE different parts of a putlog scaffold. (9)

5.3 List FOUR types of concrete blocks. (4)

5.4 Explain the *caring of terrazzo* after having laid it. (3)

5.5 Name TWO areas where terrazzo can be used. (2)
[28]

QUESTION 6

6.1 Give THREE requirements for fireplaces. (3)

6.2 Define the following terminology as used in bricklaying and plastering theory:

6.2.1 Chimney breast (2)

6.2.2 Shoring (2)

6.2.3 Bar chart planning (2)

6.3 List SEVEN steps to determine the time frame of the bar chart. (7)

6.4 State TWO advantages of interlocking pavers. (2)
[18]

TOTAL: 100

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