higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T70**(E)**(J31)T

NATIONAL CERTIFICATE

BRICKLAYING AND PLASTERING THEORY N1

(11010091)

31 July 2018 (X-Paper)
09:00–12:00

This question paper consists of 4 pages.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
BRICKLAYERING AND PLASTERING THEORY N1
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

1.1 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'true' or 'false' next to the question number (1.1.1–1.1.10) in the ANSWER BOOK.

1.1.1 A steel square is used for squaring corners.

1.1.2 A gauge rod is used to ensure that all the corners of the building are of equal height upon completion.

1.1.3 A short jointer is used to strike bed joints.

1.1.4 Block brushes are used for finishing off floor screeds.

1.1.5 Chalk lines are used to mark a straight line on a surface.

1.1.6 Jointing is the process of finishing the face of the joint as the work proceeds.

1.1.7 Span is the distance between extrados and intrados.

1.1.8 A damp-proof course is used to prevent moisture under concrete slab.

1.1.9 When constructing a rough arch the voussoirs are marked on the extrados.

1.1.10 Mortar is a mixture of sand, stone, cement and water.

(10 × 1) (10)

1.2 Name FIVE brick-cutting tools. (5)

1.3 It is most important as a contractor to ensure that the walls of a building are of equal heights upon completion. Therefore a gauge rod must be used to determine the height.

Describe how you would mark off a gauge rod. (5)

[20]

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QUESTION 2

2.1 Compression tests are done to check the quality of the concrete that is needed. To conduct this test THREE test need to be tested.

Explain the procedure on how to make these test cubes. (14)

2.2 Define the term *admixtures*. (3)

2.3 List any THREE types of admixtures which are added to concrete. (3)
[20]

QUESTION 3

Draw to an approximate scale 1 : 10 the alternate plan course of a one-brick T-Junction in stretcher bond. **[20]**

QUESTION 4

4.1 Explain the difference between *pre-cast* concrete and *in-situ* concrete. (4)

4.2 Explain FOUR points to remember when constructing an arch. (4)

4.3 Name the THREE classifications of arches. (3)

4.4 When removing the cone after having performed the slump test, the concrete tested can take on one of THREE shapes.

Name and draw the THREE possible shapes. (9)
[20]

QUESTION 5

5.1 Describe how cement is manufactured. (4)

5.2 Name SIX different types of cement. (6)

5.3 List EIGHT basic forms of Greek mouldings. (8)

5.4 Give the dimensions of a three-quarter bat. (2)
[20]

TOTAL: 100

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