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higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T241**(E)**(N19)T
NOVEMBER 2010

NATIONAL CERTIFICATE

BUILDING DRAWING N1

(8090001)

19 November (X-Paper)
09:00 – 13:00

REQUIREMENTS: A2 drawing paper.

This question paper consists of 4 pages and a diagram sheet.

DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE
BUILDING DRAWING N1
TIME: 4 HOURS
MARKS: 100

INSTRUCTIONS AND INFORMATION

1. Answer ALL the questions.
2. Read ALL the questions carefully.
3. Number the answers correctly according to the numbering system used in this question paper.
4. ALL the drawings must be fully dimensioned and labelled.
5. Marks will be deducted for untidy work.
6. ALL the drawings must be in accordance with the National Building Regulations and the SABS Practice for Building Drawing.
7. Fold the sheets to A4 when completed.
8. Write neatly and legibly.

QUESTION 1

Draw an isometric view of a THREE QUARTER BAT.

NOTE: Your preferred view may be illustrated.
Do not show hidden details.
SCALE 1:2 **[8]**

PTO

QUESTION 2

Draw FOUR rectangles of 75 mm x 50 mm, showing the following hatching symbols:

2.1 Insulation (4)

2.2 Hard core (4)

2.3 Concrete (4)

2.4 Screed (4)

SCALE 1:1 **[16]**

QUESTION 3

Draw the orthographic of the isometric drawing attached (DIAGRAM SHEET).

SCALE 1:1 **[8]**

QUESTION 4

4.1 Draw the front elevation of a one-brick wall in stretcher bond, six courses high. The bottom layer must be seven bricks long. Show a stopped end on the left side and raking back on the right side.
SCALE 1:10 (6)

4.2 Draw the front elevation of a one-brick wall in English bond, six courses high. The bottom layer must be seven bricks long. Show a stopped end on the left side and raking back on the right side.
SCALE 1:10 (6)
[12]

QUESTION 5

5.1 Draw the front elevation of a standard two panelled wooden door with a middle lock rail. The overall dimensions of the door are 2032 mm x 813 mm.

The following must be included:

Stile	100 x 44
Top rail	200 x 44
Middle rail	200 x 44
Bottom rail	200 x 44
Beading	15 x 15

SCALE 1:10 (18)

5.2 Draw a horizontal cross section through one of the stiles and part of the panel.

The following must be included:

Stile	100 × 44
Beading	15 × 15
Panel	15 thick

SCALE 1:2 (12)
[30]

QUESTION 6

Draw a horizontal cross section of a steel casement window. Show the following details:

* A portion of the adjacent brick opening
* Internal plaster
* Steel fixing lug
* Steel casement style
* 3 mm glass
* Sealing compound (putty)

SCALE 1:1

NOTE: Show only ONE side of the opening. **[14]**

QUESTION 7

Draw an elliptical gauged arch. The span is 1 200 mm and the rise is 400 mm.

SCALE 1:10

NOTE: Show the keybrick.

[12]

TOTAL: 100

DIAGRAM SHEET

QUESTION 3