



# Higher Education & Training

Department:  
Higher Education and Training  
**REPUBLIC OF SOUTH AFRICA**

T1590  
AUGUE)(J21)T  
T 2010

NATIONAL CERTIFICATE

QUANTITY SURVEYING N4

(205001

21 July (X-4)  
09:00 – 12:00  
Paper)

**REQUIREMENTS:** Dimension paper (E)  
Abstract paper (BOOE 8/12)  
Billing Paper (BOE 8/10)  
11)

Non-programmable calculators may be used.

**NOTE:** The standard system must NOT be used.

This question paper consists of 5 pages and an annexure.



**DEPARTMENT OF HIGHER EDUCATION AND TRAINING**  
**REPUBLIC OF SOUTH AFRICA**  
NATIONAL CERTIFICATE  
QUANTITY SURVEYING N4  
TIME: 4 HOURS  
MARKS: 100

---

**INSTRUCTIONS AND INFORMATION**

1. Answer ALL the questions.
  2. ALL the work in SECTION A must be done on the appropriate paper.
  3. ALL the work in SECTION B must be done in the ANSWER BOOK.
  4. Read ALL the questions carefully.
  5. Number the answers correctly according to the numbering system used in this question paper.
  6. The work is to be answered according to the STANDARD SYSTEM OF MEASURING BUILDING WORK.
  7. Red and/or green ink is NOT allowed.
  8. Do NOT staple the loose pages.
  9. In QUESTION 1 the word NIL, MUST be used on the dimension paper.
  10. Write neatly and legibly.
-

## SECTION A

### QUESTION 1

Refer to ANNEXURE 1 (attached).

The floor plan and a section of an outbuilding are given (NOT to scale).

#### SPECIFICATIONS:

- Clear site 2 m beyond the building line
- Brickwork in stretcher bond with 1:4 cement mortar
- 15 MPa concrete
- 330 Foundation wall
- Face brick TWO courses below ground level
- Assume ANY specifications not mentioned

- 1.1 Measure ALL the quantities for the foundation up to the underside of the surface bed. (27)
- 1.2 Square, abstract, reduce and bill only the masonry items. (13)

**TOTAL SECTION A: 40**

## SECTION B

### QUESTION 2

- 2.1 Complete the following sentences by using the words provided in the list below. Write only the word(s) next to the question number (2.1.1 – 2.1.10) in the ANSWER BOOK

hard core; primer; interim payment certificate; stopping; knotting; variation order; maintenance period; retention money; general surfaces; retention fund; labour only; purpose made; interim payment

- 2.1.1 If an article is of a special size, design or material, it would have to be specially manufactured to suit the specification and is said to be ...
- 2.1.2 If paint items which usually kept separate, are grouped together, they will be described as paint on ...
- 2.1.3 ... is a written order from the architect authorising a change of work and altering the amount shown in the contract.

2.1.4 After completion of a contract, the period during which a contractor is required to make good at his/her expense any work which needs repairs, is known as ...

2.1.5 ... is a percentage of the money to the contractor and retained for repairs. This money is only paid after the maintenance period and when the owner and his/her advisors are satisfied that the contractor has fulfilled his/her duties.

2.1.6 A document issued by the architect to allow an intermediate payment to the builder, is known as ...

2.1.7 In painting timber, any deepening caused by screws, nails splintering, et cetera, is to be filled with filler and sandpapered to achieve an even surface. This process is called ...

2.1.8 ... is a first coat on new wood or metal to ensure that the paint will stick to the surface.

2.1.9 A suitably graded granular fill used as subbase under floor which is to be fully compacted using vibrating mechanical equipment is called ...

2.1.10 ... is an intermediate payment by the owner to a builder. (10)

2.2 Write full descriptions of each of the following abbreviations used in taking off:

2.2.1 ECP

2.2.2 PVA

2.2.3 PVC

2.2.4 K.P.S

2.2.5 Ddt

(5)

2.3 State the unit of measurement of the following:

2.3.1 Concrete in footing

2.3.2 Steel window frame

2.3.3 Floor covering

2.3.4 Skirting

2.3.5 Paint

(5)

[20]

**QUESTION 3**

- 3.1 Discuss how structural timbers (categories, description and unit of measurement of trusses) should be measured. (5)
- 3.2 Classify the following according to the TRADES/SUB TRADES that appear in the Standard System.  
For example: beamfilling – masonry/brickwork
- 3.2.1 Excavation  
3.2.2 Concrete in foundation footings  
3.2.3 Timber rafters  
3.2.4 Damp proof course  
3.2.5 Roofing tiles (5)
- 3.3 Draw a neat sketch of a vertical cross section through the roof eave and top part of a one brick external wall. Use the following specifications:
- 38 mm x 114 mm rafter and tie beam
  - 38 mm x 114 mm wall plate
  - 50 mm x 76 mm purlins
  - Roof covering: corrugated iron sheet
  - 12 mm x 225 mm fascia board
  - 300 mm overhang at eaves
  - Beam filling
  - Wall finish: plaster internally and externally
  - Roof pitch 30°
- (10)  
[20]

**QUESTION 4**

- 4.1 State the procedure to prepare the bills of quantities. (5)
- 4.2 State the order of items when abstracting, as it appears on the latest Standard System of Measuring Building Work. (5)
- 4.3 Define the following:
- 4.3.1 Drawings  
4.3.2 Specifications  
4.3.3 Bills of quantities  
4.3.4 Standard form of a building contract  
4.3.5 Standard System of Measuring Building Work (10)  
[20]

**TOTAL SECTION B: 60**  
**GRAND TOTAL: 100**

ANNEXURE 1

T1590(E)(J21)T



