higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

T1440**(E)**(A13)T

NATIONAL CERTIFICATE

QUANTITY SURVEYING N4

(2050004)

13 April 2018 (X-Paper)
09:00–12:00

REQUIREMENTS: **Dimension paper BOE/12**
Abstract paper BOE/10
Billing paper BOE/11

Non programmable calculators may be used.

This question paper consists of 6 pages, and 1 diagram sheet.

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DEPARTMENT OF HIGHER EDUCATION AND TRAINING
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NATIONAL CERTIFICATE
QUANTITY SURVEYING N4
TIME: 4 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 work in SECTION A must be done on the appropriate paper.
5. ALL the work in SECTION B must be done in the ANSWER BOOK.
6. ALL the work must be done according to the STANDARD SYSTEM OF MEASURING BUILDING WORK.
7. In QUESTION 1 the word NIL must be used on the dimension paper.
8. Do NOT use red or green ink.
9. Do NOT staple loose pages.
10. ALL work you do not want to be marked must be clearly crossed out.

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SECTION A

QUESTION 1

Study the foundation plan and section of an outbuilding given on the attached DIAGRAM SHEET. The sketches are NOT to scale.

SPECIFICATIONS:

- Clear site 2 m beyond the external wall
- 15 Mpa concrete
- Brickwork in stretcher bond with cement clay
- Stock bricks internally
- Face bricks externally, two courses below the ground level
- Assume any specification not shown

1.1 Take off the foundation up to the underside of the surface bed. (24)

1.2 Square, abstract, reduce and bill only the earthworks. (16)
[40]

SECTION B

QUESTION 2

2.1 Write the abbreviated form for the following as used in taking off:

2.1.1 External cement plaster on brick horizontal surfaces

2.1.2 Extra for fair face

2.1.3 Risk of collapse to sides of trenches

2.1.4 Formwork to edge of slab not exceeding 150 mm high

2.1.5 Knot prime and stop 2 coats enamel on timber doors

(5 × 1) (5)

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2.2 Write down the following abbreviations in full:

2.2.1 Ddt

2.4.2 Msd

2.4.3 PVA

2.4.4 fnds

2.4.5 g.m.s

(5 × 1) (5)

2.3 State FIVE reasons why the quantity surveyor should visit the site prior to his commencement of working on the bill of quantities. (5)

2.4 Give the correct technical term for each of the following statements.

2.4.1 Cutting of common brickwork

2.4.2 Portion of a wall built between the rafters to the underside of the roof covering

2.4.3 Temporary wood framing fixed to support an arch while it is being built

2.4.4 Hoop or wire built into the top portion of a wall

2.4.5 Cutting of faced brickwork

(5 × 1) (5)
[20]

QUESTION 3

3.1 Indicate whether the following statements are TRUE or FALSE. Choose the answer and write only 'true' or 'false' next to the question number (3.1.1–3.1.10) in the ANSWER BOOK.

3.1.1 The bill of quantities is used to find a suitable contractor/ subcontractor.

3.1.2 Reinforcement shall be measured to the design lengths and given in metres.

3.1.3 When measuring, the taker–off colours the plan in red to mark brickwork.

3.1.4 When a dimension has been set down incorrectly correction fluid may be used to alter the incorrect dimension.

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3.1.5 One of the functions of the quantity surveyor is to prepare interim valuations for monthly payments to the contractor.

3.1.6 A half-brick wall is a wall the width of a brick.

3.1.7 The thickness of a half-brick wall is the length of half a brick.

3.1.8 Specifications are used mainly for contracts without a bill of quantities.

3.1.9 The Standard System is issued by the SABS.

3.1.10 The taking-off list is a list of all items that need to be measured.

(10 × 1) (10)

3.2 Complete the following sentences by using the words in the list below. Write only the word next to the question number (3.2.1–3.2.10) in the ANSWER BOOK.

circular; measured net; circular on plan; variation order; interim money; retention fund; casting up; reducing; deductions; red; brown, adjustments; green, blue; yellow; purple; leavings; specifications; drawings

3.2.1 The expression … refers to spherical, elliptical and similar surfaces.

3.2.2 The term … is used if certain measurements are exclusive of any extras for laps, passings, et cetera.

3.2.3 … are done to rectify detail which was ignored earlier when taking off.

3.2.4 The percentage of money due to the contractor and retained for repairs is called the …

3.2.5 … is a written order from the architect authorising a change of work altering the amount shown in the contract.

3.2.6 … is done on abstract paper after the abstract has been checked.

3.2.7 … is done on abstract paper after the casting has been completed.

3.2.8 When measuring the taker-off colours the plans … to show concrete.

3.2.9 When measuring the taker off colours the plans … to show steel.

3.2.10 The bill of quantities is based on the …, which is an extraction of quantities.

(10 × 1) (10)

[20]

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QUESTION 4

4.1 State FIVE duties of the quantity surveyor, before a bill of quantities is ready for binding. (5)

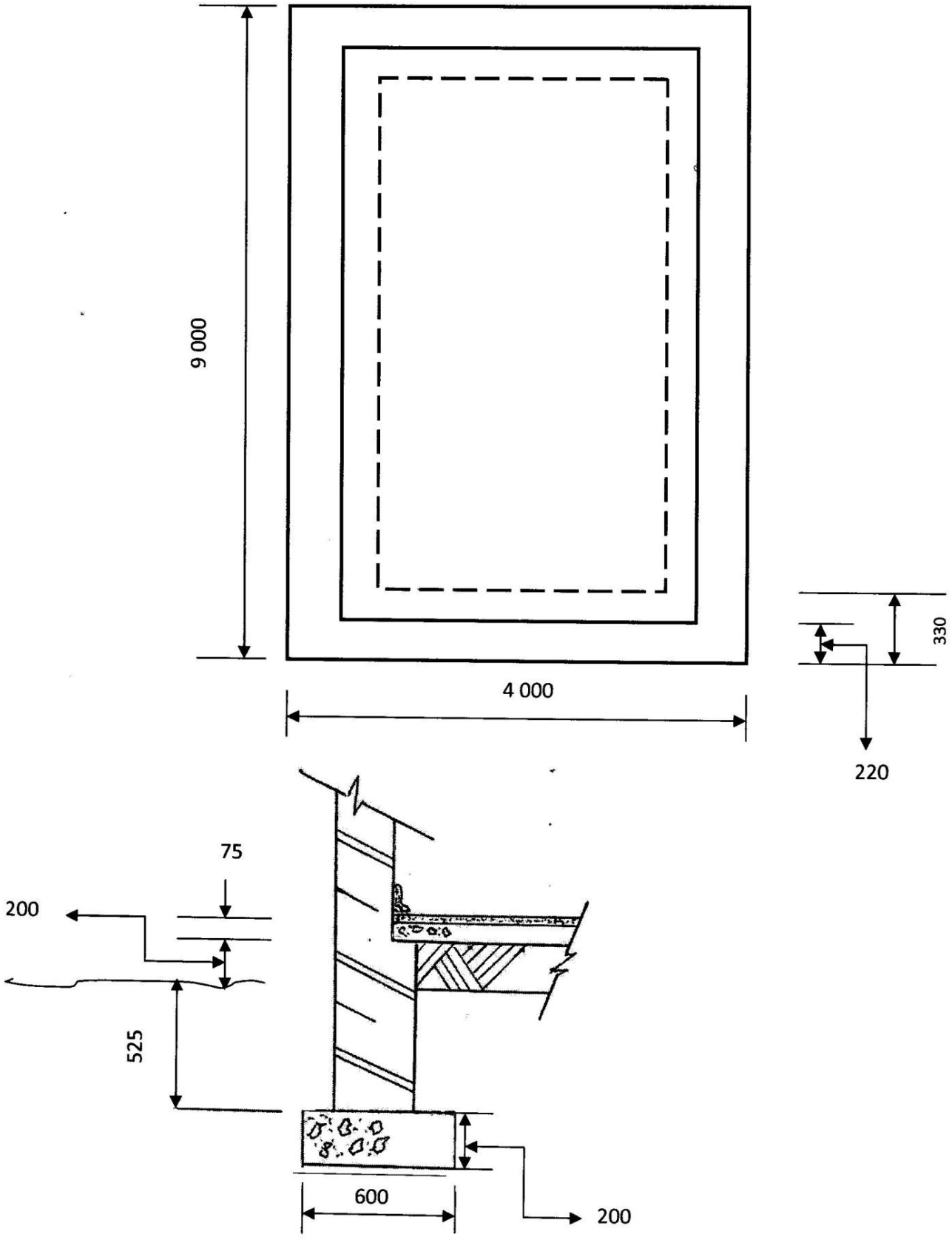
4.2 Explain the function of the abstract. (5)

4.3 Describe the principles for framing good descriptions in the bill of quantities. (10)
[20]

TOTAL SECTION B: 60
GRAND TOTAL: 100

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DIAGRAM SHEET



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