



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NATIONAL CERTIFICATE QUANTITY SURVEYING N6

(2050026)

**13 August 2021 (X-paper)
09:00–13:00**

REQUIREMENTS: Dimension paper (OE 8/12)
Abstract paper (OE 8/10)
Billing paper (OE 8/11)

**Candidates will require their own unmarked Standard System of
Measuring Building Work**

Nonprogrammable calculators may be used.

This question paper consists of 4 pages and 3 addenda.



319Q1G2113

DEPARTMENT OF HIGHER EDUCATION AND TRAINING
REPUBLIC OF SOUTH AFRICA
NATIONAL CERTIFICATE
QUANTITY SURVEYING N6
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. Start each question on a new page.
 5. Only use a black or blue pen.
 6. QUESTIONS 1, 2.2–2.4 and 4 must be done in the ANSWER BOOK.
 7. All the work for QUESTIONS 2.1 and 3 must be done on the appropriate sheets provided.
 8. All loose sheets must be numbered correctly and placed in sequence inside the ANSWER BOOK.
 9. Candidates must strictly apply the rules and methods stipulated in the Standard System Of Measuring Building Work.
 10. Write neatly and legibly.
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QUESTION 1

- 1.1 Draw up a typical list of items to be discussed at a site meeting. (5)
- 1.2 Briefly discuss the duties of the chairperson. (3)
- 1.3 Name THREE communication methods used by the architect to convey messages.  (3)
- 1.4 Briefly explain the difference between:
- 1.4.1 A site instruction
- 1.4.2 A variation order (2 × 2) (4)
- 1.5 List FIVE examples of typical site instructions issued by an architect. (5)
- 1.6 Explain the difference between:
- 1.6.1 Arbitration  (3)
- 1.6.2 An arbitrator (2)
- [25]**


QUESTION 2

ADDENDUM B shows a vertical section through one wall of a basement. ADDENDUM C shows the measurements of only the earthwork items for this basement.

Remove ADDENDUM C from your question paper, write your examination number in the space provided in the top right-hand corner and hand it in with your ANSWER BOOK after completing the working-up steps below: 

- 2.1 2.1.1 Square only the site clearance and the risk of collapse. (4)
- 2.1.2 Abstract only the squared items to the abstract sheet. (4)
- 2.1.3 Draw up a bill for the abstracted items on the bill sheet. (7)
- 2.2 Name FOUR uses of bills of quantities. (4)
- 2.3 What is a quantity surveyor? (2)
- 2.4 Explain the difference between:
- 2.4.1 A measuring list 
- 2.4.2 A taking-off list (2 × 2) (4)
- [25]**

QUESTION 3

- 3.1 A reinforced concrete structure is shown on ADDENDUM A of this question paper. The structure has two rectangular, two square and two L-shaped columns cast on square concrete bases below, and are and on top of a slab on a ring beam and an intermediate beam. You are required to take off all the items of the work in the superstructure only. 

NOTE: Measure the columns from the top surface of the concrete bases to the underside of the concrete beams. (20)

- 3.2 Measure the items for the steel rod reinforcement.



SPECIFICATIONS: 

Concrete: 25 Mpa.

Reinforcement: Provisional sum of R25 000,00

(5)
[25]

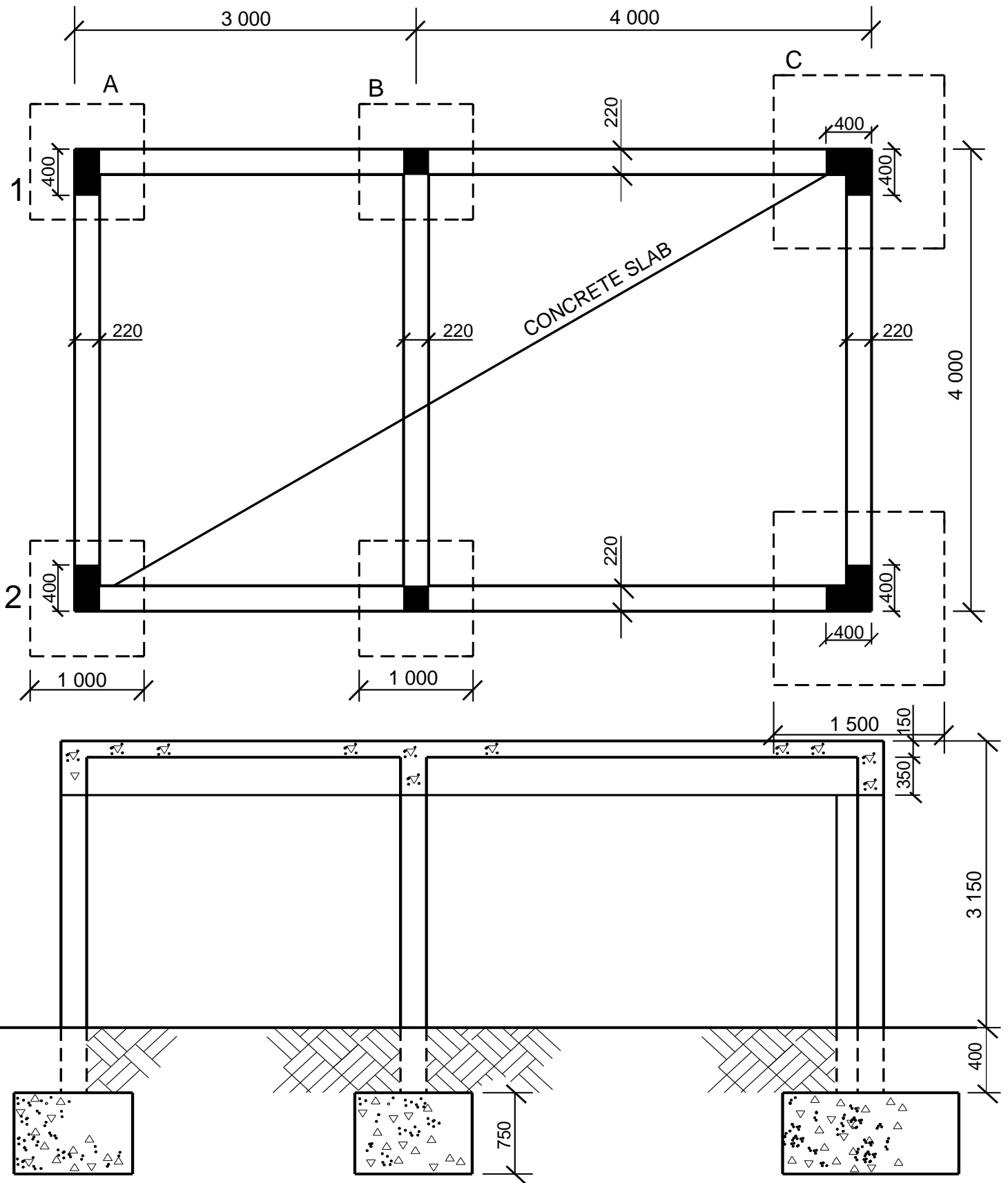
QUESTION 4

- 4.1 Explain what is to be understood by a *plaster mixture*. (3)
- 4.2 Explain the plaster mixture ratio of QUESTION 4.1. (4)
- 4.3 State the sizes of a standard brick.  (3)
- 4.4 Calculate the number of bricks required in a 270 mm thick cavity wall 11 m long and 1,8 m high. Use 55 bricks per m² for a half brick wall. (5)
- 4.5 Define *concrete*.  (2)
- 4.6 Explain what is meant by *curing* of concrete. (4)
- 4.7 Give FOUR methods of how curing is done. (4)

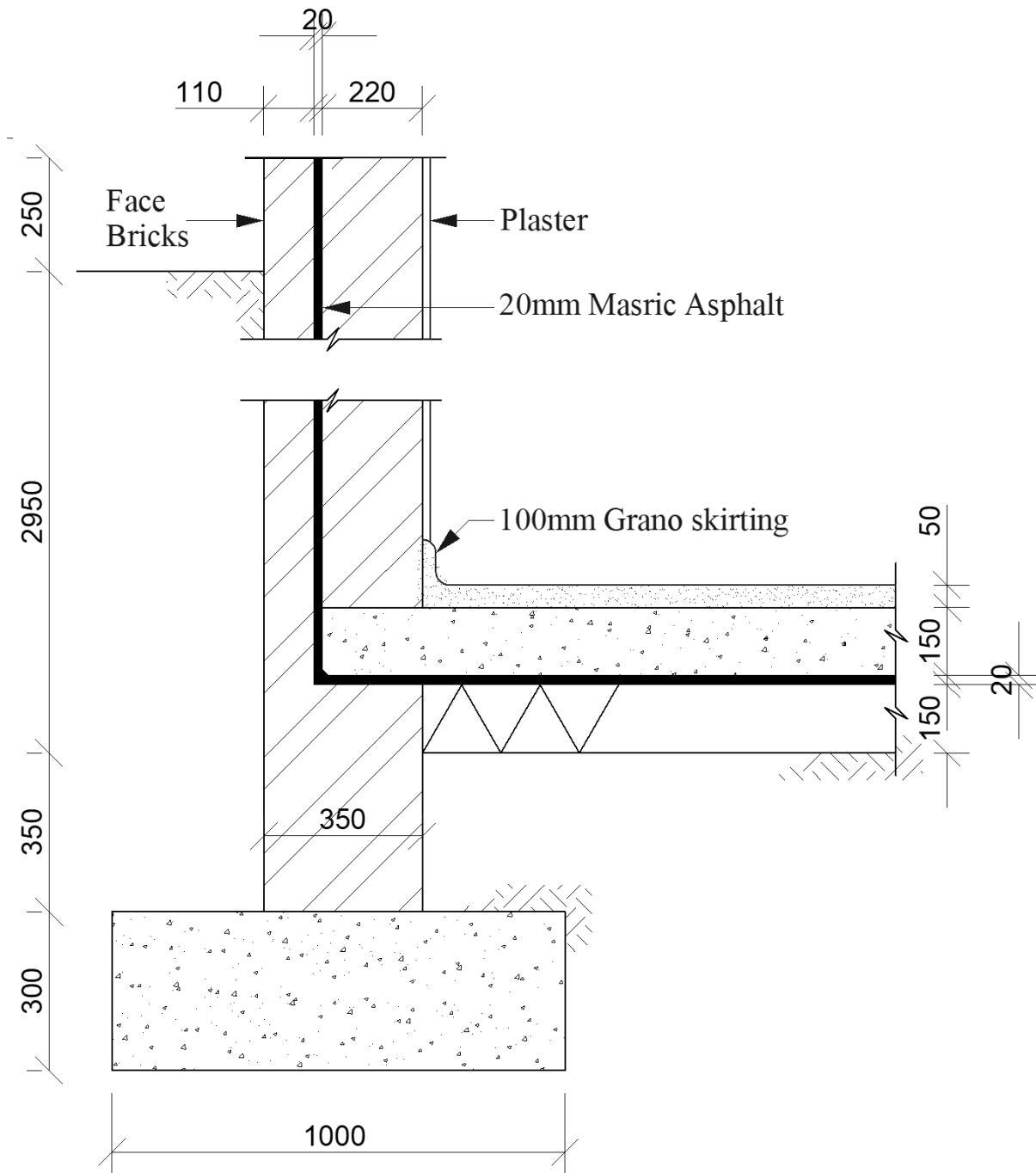
[25]

TOTAL: 100

ADDENDUM A



ADDENDUM B



ADDENDUM C

EXAMINATION NUMBER:

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	19,00 15,50	{ C.s. & prep. site for bldrs. wrk. $1000 - 350 = 650 \div 2$ $= 0,325 \text{ m}$ $15,000 \times 11,500$ $2 \times 2m \frac{4,000}{4,000}$ $19,000 \times 15,500$		53,00 0,50	{ Exc. back from bsmnt. hole for w.s. n.e. 500 mm dp.
				53,00 1,00	
	15,00 11,50 2,00	{ Excav. in ord. earth for bsmnt. Hole n.e. 2 m dp.		53,00 1,50	{ Ditto, but exc. 1,5 m n.e. 3 m dp.
				53,00 0,30	
	15,00 11,50 1,30	{ Ditto, but exc. 2 m n.e. 4 m dp. $2950 + 350 = 3300 - 2000$ $= 1,300 \text{ m}$		53,00 3,60	{ R.o.c. to sides of bsmnt. Hole exc. 1,5 m dp. from g.l. $3.300 + 0,300 = 3,600 \text{ m}$
	49,00 1,00 0,30		{ Excav. for bsmnt. trench exc. 2 m n.e. 4 m from g.l. $2/15,000 = 30,000$ $2/11,500 = 23,000$ $53,000$ Less 4/ 1,000 $4,000$ $49,000 \text{ m}$		

(1)

(2)