



**higher education
& training**

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

QUANTITY SURVEYING N5

16 August 2023

This marking guideline consists of 8 pages.

SECTION A**QUESTION 1**

		1.1 $\begin{array}{r} 9000 \\ 2/220 \\ \underline{2/3000\checkmark} \\ 15440\checkmark \end{array}$ $\begin{array}{r} 60000 \\ 2/220 \\ \underline{2/3000\checkmark} \\ 12440\checkmark \end{array}$ 1.2 $\begin{array}{r} 2/9440 \\ 2/6440 \\ \underline{18880\checkmark} \\ \underline{12880\checkmark} \\ 31760\checkmark \end{array}$ 1.3 $\begin{array}{r} 3000 \\ + 150\checkmark \\ \hline 3150\checkmark \end{array}$ 1.4 $\begin{array}{r} 31760\checkmark \\ -4/1000\checkmark \\ \hline 27760\checkmark \end{array}$ 1.5 $\begin{array}{r} 31760 \\ -8/430\checkmark \\ \hline 28320\checkmark \end{array}$ 1.6 External $\begin{array}{r} 31760 \\ -4/110 \\ \hline 31320\checkmark \end{array}$ Internal $\begin{array}{r} 28320 \\ +4/110 \\ \hline 28760\checkmark \end{array}$			1.7 $\begin{array}{r} 31760 \\ - 8/ 110\checkmark \\ - 4/190\checkmark \\ \hline 30120\checkmark \end{array}$ 1.8 $\begin{array}{r} 31760 \\ -8/1000\checkmark\checkmark \\ \hline 23760\checkmark \end{array}$ [10]
		(1)			(2)

QUESTION 2

27,76	✓	2.1
1,00		30 MPa reinf. conc. ✓
0,20		- ftgs.
9,44	✓	
6,44		
0,15		
Or	✓	- Sub-base
27,76		9440 6440
1,00		<u>-2/1000</u> <u>2/1000</u>
0,35		7440 7440
7,44		2.2
4,44		30 Mpa reinf. conc. to
0,15		the bsmnt. flr. ✓
9,18	✓	9440 6440
6,18		<u>-2/130</u> <u>-2/130</u>
0,25		9180 6180
30,12	✓	2.3
2,66		25 Mpa reinf. conc. to
0,19		the bsmnt. wall. ✓
		3000 – 75 – 250 – 20 =
		2655
30,72	✓	2.4
2,68		Frmwrk to the sides of
		the bsmnt wls. ✓
29,20	✓	28320
2,68		<u>+8/110</u>
		29.200
Or		3000 – 75 – 20 = 2905
29,68		
2,91		
		[10]

(3)

QUESTION 3

9.18	✓	3.1
6.18		25 MPa concrete to the slabs.
0.15	✓	✓ 9440 6440
		<u>2/130</u> <u>2/130</u>
		9180 6180
2/	✓	3.2
6		25 MPa concrete cubes ✓
		&
		30 MPa concrete tubes
31.32	✓	3.3
3.18	✓	110 mm brick skin leaf ✓
		- Externally
28.76	✓	3000 + 200 – 20 = 3180
2.66	✓	- Internally
		3000 – 250 – 75 – 20 = 2655
		[10]

(4)

QUESTION 4.1

	9,18 6,18 0,15	8,51	3.1 25 MPa concrete to the slabs. ✓ 9440 6440 <u>2/130</u> <u>2/130</u> 9180 6180				
	6	6	3.2 // // 25 MPa concrete cubes ✓ & 30 MPa concrete tubes 3.3 110 mm brick skin leaf ✓ - Externally 3000 + 200 = 3200 28,76 2,66 76,50 - Internally 3000 – 250 – 75 = 2675				<u>Mark allocation</u> Check side cast 1 Check dims 1 Squaring 1 Check squaring 1 Check run-through 1 (5)
	31,32 3,18	99,66					
		176,10					

QUESTION 4.2

SECTION FOR A SMALL DWELLING ✓									
CONCRETE, FORMWORK AND REINFORCEMENT					MASONRY				
M ³ ✓					M ²				
25 MPa concrete to the slabs.	✓				110 mm brick skin leaf				
					176.10	4			
					178				
8.51	✓	4	✓						
9 M ³									
NO									
25 MPa concrete cubes									
6		4							
6 no									
NO									
30 MPa concrete cubes									
6		4							
6 no									

Mark allocation

Section	1
Trade	1
Unit	1
Page ref.	1
Cols.	1
Reducing	1
Transfers	1
	7

(7)

QUESTION 4.3

	<u>SECTION OF SMALL DWELLING</u> ✓ <u>BILL No. 1</u> ✓				
✓	<u>CONCRETE, FORMWORK AND REINFORCEMENT</u> ✓	✓	✓		
1	25 MPa concrete cubes ✓	No	6		
2	25 MPa concrete cubes	No	6		
3	25 MPa concrete to the slabs	m ³	9		
	<u>MASONRY</u>				
4	110 mm brick skin leaf	m ²	177		
	✓ BILL carried to summary			R	

Mark allocation

Section	1
Bill no.	1
Trade	1
Item no.	1
Descriptions	1
Units	1
Quantities	1
Summary	1
	<u>8</u>

(8)
[20]**TOTAL SECTION A: 60**

SECTION B**QUESTION 5**

- 5.1
- Construction contract agreement
 - Scope of work
 - Construction schedule
 - General conditions of contract
 - Special conditions
 - Specifications
 - Bill of quantities
 - Cost estimate
 - Contract drawings
 - Construction insurance
- (Any 8 × 1) (8)
- 5.2
- Open tendering
 - Selective tendering
 - Negotiation
 - Tendering on bill of quantities
- (Any 2 × 1) (2)
- [10]**

QUESTION 6

- 6.1
- Describe the quality of every product required for the project.
 - Describe the requirements for the fabrication, erection, application, installation, and finishing.
 - Describe the quality of workmanship necessary for the project.
 - Give the cost of a unit quantity of work.
 - Work is carried out according to specifications.
 - Provide guidance re payment for work.
 - The tender rate without specifications is baseless, invalid, and incomplete.
- (Any 6 × 1) (6)
- 6.2
- Unit method
 - Square metre method
 - Elemental method
 - Approximate method
- (4)
- [10]**

QUESTION 7

- 7.1 Retention fund: An amount✓ withheld from the interim payments until the final and satisfactory project completion. ✓
 Extras: Items that to a certain extent have already been measured, but have not been priced at the full value of all their labour and materials. ✓
 Variations: A change from the original construction contract in the form of addition, substitution, or omission from the scope of works. ✓ (6)
- 7.2
- Preliminaries
 - Executed work
 - Variations
 - Work executed (by nominated sub-contractor and suppliers)
 - Material on site
 - Material stored off site (if terms of contract allow it)
 - Re-measurement of approximated work
 - Fluctuations
- (4)
[10]

QUESTION 8

- 8.1
- Estimate: The probable cost of work,✓ determined by mathematical calculation based on the plans, drawings and current rates for a project✓
 - Estimation: The process of calculating the cost of the project✓ (3)
- 8.2
- | | | |
|--------------------------------------|--------------------|---|
| Preliminaries | R48 890,00 | |
| Earthworks | R150 430,00 | |
| Concrete, formwork and reinforcement | R105 250,00 | |
| Masonry | R120 000,00 | |
| Waterproofing | <u>R15 150,00</u> | |
| Builders work complete | R439 720,00 | ✓ |
| Add material on site | <u>R8 500,00</u> | |
| | R448 220,00 | ✓ |
| Increased costs | <u>R6 200,00</u> | |
| | R451 420,00 | ✓ |
| Less 10% of retention fund | <u>R45 140,00</u> | ✓ |
| | R496 280,00 | ✓ |
| Less previous payment | <u>R250 120,00</u> | ✓ |
| Amount due to contractor | R246 160,00 | ✓ |
- (7)
[10]

TOTAL SECTION B: 40
GRAND TOTAL: 100