higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

QUANTITY SURVEYING N4

26 November 2024

This marking guideline consists of 7 pages.

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SECTION A

QUESTION 1

			1.1.1 Height of triangle 1 020 + 38 Less -270 788	2/3/	8.40		1.2.3 50 mm × 76 mm sawn South African pine purlins
2/½/	3.10 0.79		One brick-wall as before &				1.2.4 76 mm × 76 mm wrought South African pine once splayed eaves purlins
2/	3.10 0.27		Extra over brickwork for external facings	2/	8.40		
			1.1.2				1.3.1 8 000 Less 2/220 440 7 560
2/2/	2.05		Fair-raking cutting and waste on face brick				7 560 ÷ 750 = 10.08 Say 11 + 1 = 12
			1.1.3 8 000 Less 2/220 440 7 560				1.3.2 114 mm × 38 structural timber in lengths not exceeding 2.4 m
2/	7.56 0.27		Half-brick-wall beam filling including cutting around timber	12/2/	0.40		-queen post
			1.1.4	12/	1.02		-king post
2/	8.00 0.27		Extra over brickwork for facings on beam filling	12/2/	0.91		-strut
			1.2.1 114 mm × 38 mm Sawn South African Pine pre-treated wall plate, including bedding in cement mortar	12/2/	2.80		1.3.3 Ditto, but exceeding 2.4 m not exceeding 3.9 m for rafter
2/	7.56			12/2/	1		Splay cuts to ends of rafter & Hoop iron roof ties as usual
			1.2.2 8 000 2/200 400 8 400	12/	2.88		1.3.4 114 mm × 38 structural timber for tie beam tie beam length 3 100 Less 2/110 220 2 880
			-1-				-2-

QUESTION 2

Squaring

	√						
2/½/	3.10 0.79	√ 2.45	One brick-wall as before √				
			&				
2/	3.10 0.27	 1.67	Extra over brickwork for external facings				
		4.12	√				
2/2/	2.05	8.20	Fair-raking cutting and waste on face brick				
		√	√				
2/	7.56 0.27	 4.08	Half-brick-wall beam filling including cutting around timber				
2/	8.00 0.27	 4.32	Extra over brickwork for facings on beam filling				
			-1-				

Abstracting

MASONRY√

m²√ √
One brick-wall as before
&
Extra over brickwork for external facings

4.12 1√
4 m²√

m²
Extra over brickwork for facings on beam filling
4.32 1
4 m²

ROOF
√

m
Fair-raking cutting and waste on face brick

8.20 1
8 m

m²
Half-brick wall beam filling including cutting around timber
4.08 1
4 m²

Billing

NO	DESCRIPTIONS	UNIT	QTY	RATE	RAND	CENTS
	ROOF√					
	Bill no. 1√					
√	Masonry√	√	√			
1	√ One brick-wall as before & extra over brickwork for external facings	m²	4			
2	Fair-raking cutting and waste on face brick	m	8			
3	Half brick-wall beam filling including cutting around timber	m²	4			
4	Extra over brick work for facings on beam filling	m²	4			
	Bill no 1					
	Carried forward to summary √					

TOTAL SECTION A: 50

SECTION B

QUESTION 3

3.1 3.1.1 m^3✓
3.1.2 m✓
3.1.3 m✓
3.1.4 m^2✓
3.1.5 m^3✓

(5 × 1) (5)

3.2 3.2.1 As before✓
3.2.2 Approved✓
3.2.3 Centreline ✓
3.2.4 Formwork✓
3.2.5 Damp proof course✓

(5 × 1) (5)
[10]

QUESTION 4

4.1 4.1.1 D✓
4.1.2 F✓
4.1.3 B✓
4.1.4 A✓
4.1.5 E✓

(5 × 1) (5)

4.2 4.2.1 As has been said before. It is used to indicate something already said.✓

4.2.2 Round or curved shapes measured from radius.✓

4.2.3 A list of all the items of a section or area to be measured.✓

4.2.4 A list of all the section or areas of work of project to be measured.✓

4.2.5 Money paid by the client to the contractor, monthly,✓ once the interim certificate has been issued.

(5 × 1) (5)
[10]

QUESTION 5

5.1 5.1.1 Bill of quantities is a document that is used for the tendering process in construction projects, in which materials, labour and services are itemised. It also details the terms and conditions of the construction contract and itemises all work for sub-contractor.

5.1.2 A specification is a document that gives a detailed description of the dimensions, construction workmanship and materials of the work to be done. It describes what cannot be visualised or explained in drawing.

5.1.3 A guide with a uniform rules for the measuring of building work and ensure that the bill of quantities is fully described and accurately represents the quantity and quality of work to be carried out.

5.1.4 These are terms and conditions that set the rights and obligations of the contracting parties when a contract is awarded to entered to.

5.1.5 Complete set of scaled drawing, prepared by the architect, consisting of floor plans, elevation, sections and detail drawings that provide a complete representation of structure to be built.

(5 × 2) (10)

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5.2
- Provides uniformity in the preparation of bill of quantities.
- Lays down principles for measurement.
- Makes the bill of quantities understandable and pliable.
- Provides guidelines for measurements that are not rigid, set rules.
- Provides the order for setting out the bill of quantities.
- Simplify the measurement of bill of quantities. (Any 5 × 2) (10)

[20]

QUESTION 6

6.1 Sum of ratio = 1 + 6 = 7✓ (1)

6.2 Volume of wall = 17.500 × 2.500 × 0.22✓
= 9.625 m³✓ (2)

6.3 Volume of a brick without mortar = 0.22 × 0.11 × 0.075✓
= 0.00182 m³✓ (2)

6.4 Volume of a brick with mortar = 0.23 × 0.11 × 0.085 ✓
= 0.00215 m³✓ (2)

6.5 Number of bricks = $\frac{9.625}{0.00215}$✓
= 4476.744✓
= 4477✓ (3)

[10]

TOTAL SECTION B: 50
GRAND TOTAL: 100

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