higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

QUANTITY SURVEYING N6

27 November 2024

This marking guideline consists of 11 pages.

Copyright reserved

QUESTION 1

1.1

Waste calculations

Area A	Area B	Area G	Area H
86,20	87,30	86,80	85,70
88,30	91,20	91,30	89,50
84,00	88,30	89,50	87,80
87,60	86,20	85,70	83,50
346,10 ÷ 4	353,00 ÷ 4	353,30 ÷ 4	346,50 ÷ 4
= 86,53 – 87,60	= 88,25 - 87,60	88,33 – 87,60	86,63 – 87,60
= - 1,08 m✓	= 0,65 m✓	= 0,73 m✓	= - 0,98 m✓

Area C	Area D	Area I	Area J
90,50	91,30	83,50	83,50
92,70	90,50	86,80	85,70
91,20	87,30	85,70	83,50
87,30 ÷ 4	89,50 ÷ 4	83,50	
= 361,70 – 87,60	358,60 – 87,60	339,50 ÷ 4	252,70 ÷ 3✓
= 2,83m ✓	= 2,05 m✓	84,88 – 87,60	84,23 –
		= - 2,73m✓	= - 3,37 m ✓

Area E	Area F
89,50	87,80
87,30	86,20
84,00	84,00
86,20	85,10
350,89 ÷ 4	343,10 ÷ 4
87,70 – 87,60	85,78 – 87,60
= 0,10m✓	= - 1,83m✓

(11)

1.2

	115,00 115,00 0,65	✓	Bulk excav. in open stand to required formation level. ✓ Area B				
	115,00 115,00 2,83	✓	Area C				
	115,00 115,00 2,05	✓	Area D &				
	115,00 115,00 0,10	✓	Area E				
	115,00 115,00 0,73	✓	Area G				
			Excav. mat. avail. for filling. ✓				

(7)

1.3

	115,00 57,50 1,08	✓	Filling to formation level from avail. excav. mat. ✓ Area A				
	115,00 57,50 1,83	✓	Area F				
	115,00 115,00 0,98	✓	Area H				
	86,25 115,00 2,73	✓	115,00 + 57,50 = 172,50 ÷ 2 = 86,25m ✓				
0,5			Area I				
	57,50 115,00 3,37	✓	Area J				

(7)
[25]

QUESTION 2

2.1 Arbitration is a process outside a court of law.✓ to solve a dispute between two parties.✓ (1 × 2) (2)

2.2
- To demolish existing walls.
- Making good existing work.
- Removing exiting windows, doors, etc.
- Closing up openings.
- Creating openings for new doors, windows, etc.

(4)

2.3
- Architect
- Engineer
- Clerk of works
- Quantity surveyor
- Building surveyor
- Contract supervisor/manage
- Nominated sub-contractor

(Any 4 × 1) (4)

2.4 2.4.1 Squaring

	1,61		*74 x 44 mm Meranti solid tbr. twice rebated & once grooved*	2			
			head	2	0,41		*2Cts. clr. varnish to tbr. window sash.*
			56 x 44 mm Meranti solid tbr. once rebated & once grooved.		0,81	1,33	
	1,61						
2			*Cill*	2			*3mm Thk. clr. float glass exce 0,1m² n.e. 0,5m².*
	0,90		*Stiles*		0,74		
					0,34	0,50	
			56 x 44 mm Meranti solid tbr. Twice rebated.		0,64		*Ditto, but exce. 0,5m² n.e. 2m².*
2	0,90		*Mul.*		0,83	0,53	
			406 x 812 mm Meranti tbr. Sash, side hanged.				
	2						
			Prime backs of frame.				
	5,02	5,02	*2/1,611 + 2/0,900 = 5,022m*				
	1,61		*2Cts. clr. varnish to exposed tbr. of window.*				
	0,16	0,26	*Head = 2/44 + 74 = 0,162m*				
	1,61		*Cill & stiles = 2/44 + 56 = 0,144m*				
2	0,14	0,23	*Mullion = 2/44 + 2/56 = 0,200m*				
	0,90						
2	0,14	0,25					
	0,90						
	0,20	0,36					
		1,10					

(3)

2.4.2 Abstracting

Timber casement window

Paintwork

M²

2Cts. clr. Varnish to exposed tbr. surf.

1,10 1

1M²

M²

2Cts. clr. varnish to tbr. sash

1,33 2

1M²

M

Prime backs of tbr. frame.

5,02 1

5M

Timber casement window

Glazing

M²

3mm Clear float glass exce. 0,1m² n.e. 0,5m²

0,5 2

0,5M²

M²

3mm Clear float glass exce. 0,5m² n.e. 2m²

0,53 2

1M²

(5)

2.4.3 Billing

	Timber casement window Bill No. 1 Paintwork				
1.	Two coats clear varnish to exposed timber window surfaces.	M²	1		
2.	Two coats clear varnish to timber window sashes.	M²	1		
3.	Prime backs of timber window frame.	M	5		
	Carried to summary			R	

	Timber casement window Bill No. 2 Glazing				
1.	3 mm clear float glass exceeding 0,1 m² not exceeding 0,5 m².	M²	0,5		
2.	3 mm clear float glass exceeding 0,5 m² not exceeding 2 m².	M²	1		
	Carried to summary			R	

(7)
[25]

Working up mark allocation

Squaring		
Check side casts	0,5	
Square dimensions.	1	
Check final answers	0,5	(3)
Transfers to abstract.	0,5	
Check transfers	0,5	
Abstracting		
Section of work.	0,5	
Trade. 1	0,5	
Trade 2	0,5	
Sub-divisions	0,5	(5)
Units.	1	
Page referencing.	0,5	
Reducing.	1	
Transfers to bill.	0,5	
Billing		
Section of work.	0,5	
Bill no. 1	0,5	
Bill no. 2	0,5	(7)
Trade.	1	
Sub-divisions	0,5	
Item no.	1	
Descriptions. (no abbreviations)	1	
Units.	0,5	
Quantities. (correct column)	1	
Summary	0,5	

Copyright reserved

QUESTION 3

3.1

	1,30 ✓ 1,20 ✓ 6,20 ✓ 7,80 ✓ 3,10 ✓ 3,00 ✓		Excav. in earth for trench approx.. 310 mm wide ✓ and lay 110 mm drainpipe n.e 1m dp. ✓ from g.l. incl backfilling of excav. mat. & keeping excav. dry. ✓ 0,110 + 2/0,100 = 0,310 m ✓				
	2	✓	Universal gulley with p-trap and grid cover. ✓				

(12)

3.2

	1,80	✓	110 mm pvc plastic vent pipe incl. brackets plugged & screwed to vert. bk. wl. ✓ 1,500 + 0,300 = 1,800 m✓				
	1	✓	✓ Extra for 110 mm vent cowl.				
	2	✓	Extra for 110 mm dia. Plain bend. ✓				

(7)

3.3

	Item	✓	Allow the prov. sum of R1500,00 (One Thousand Five Hundred Rand) ✓ for mun. connection. ✓ & ✓ Allow for att. upon mun. workers. ✓ & Allow for profit. ✓				

(6)
[25]

QUESTION 4

4.1 Volume of foundation = 10,000 × 0,600 × 0,230 = 1,38 m³✓

Total part = 1 + 3 + 6 = 10 parts✓

1,54 ÷ 10 = 0,154 ✓

. ✓

Cement = 1 x 0,154 ÷ 0,033 ✓ = 4,67 pockets × R90,00 = R420,30✓

Sand = 3 × 0,154 ✓ = 0,462 m³ ✓ × R300,00 = R138,60✓

Stone = 6 × 0,154 ✓ = 0,924 m³ ✓ × R450,00 = R415,80✓

Labour = 3 × 3 × R32,00 ✓ = R288,00✓

R1262,70✓

\+ 25% profit R 315,68✓

R1578,38✓

\+ 15 Vat R 236,76✓

Cost of 1 m³ of concrete R 2051,89✓

Cost of concrete foundation = R2051,89 × 1,38 = R 2831,61✓ (20)

4.2 390 + 10 = 400

190 + 10 = 200

1000 ÷ 400 = 2,5

1000 ÷ 200 = 5

Number of blocks/m² = 2,5 × 5 = 12,5 blocks. (5)

[25]

TOTAL: 100

Copyright reserved