



higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

BUILDING ADMINISTRATION N5

19 April 2024

This marking guideline consists of 5 pages.

QUESTION 1

- 1.1 Preliminaries
- 1.2 Site office
- 1.3 Measured works
- 1.4 Day works
- 1.5 Plastic
- 1.6 Hand and power tools
- 1.7 Glass
- 1.8 Construction vehicle
- 1.9 Copper
- 1.10 Earth-moving equipment

(10 × 1) [10]

QUESTION 2

- 2.1 I
- 2.2 E
- 2.3 G
- 2.4 A
- 2.5 B
- 2.6 J
- 2.7 F
- 2.8 D
- 2.9 L
- 2.10 C

(10 × 1) [10]

QUESTION 3

- 3.1
 - 3.1.1 True
 - 3.1.2 True
 - 3.1.3 False
 - 3.1.4 False
 - 3.1.5 False

(5 × 1) (5)

- 3.2
 - Testing regimes
 - Mock-ups
 - Quality issues
 - Weather reports
 - Issues that have a financial effect
 - Health and safety issues
 - Issues with neighbouring properties
 - Off-site fabrication and the relevant payments
 - Design issues

(Any 5 × 1) (5)

QUESTION 4

- | | | | | |
|-----|-------|--|---------|-------------|
| 4.1 | 4.1.1 | Production requirement | | |
| | 4.1.2 | Ore characteristics | | |
| | 4.1.3 | Capital cost | | |
| | 4.1.4 | Jaw crusher | | |
| | 4.1.5 | Roller crusher | (5 × 1) | (5) |
| 4.2 | 4.2.1 | Safety factor: Construction sites are inherently dangerous, and the safety of everyone on site is first priority. To achieve this, equipment that enhances the safety of all involved is considered above the equipment that does not. | | (2) |
| | 4.2.2 | Company factor: These factors refer to the company's needs and capabilities. If the company has a number of projects lined up, then investing in heavy construction equipment would make sense. However, if there is only one small project, renting might be a better option. The amount of in-house work also influences the decision because if the company outsources a lot of work, it would not make sense to invest in equipment. | | (3) |
| 4.3 | | <ul style="list-style-type: none">• Air• Additives• Fly ash• Silica fumes• Slag | | (5) |
| | | | | [15] |

QUESTION 5

- | | | | | |
|-----|-------|---|---------|-------------|
| 5.1 | 5.1.1 | Low guy line | | |
| | 5.1.2 | Jib load line | | |
| | 5.1.3 | Jib strut | | |
| | 5.1.4 | Upper guy line | | |
| | 5.1.5 | Jib | | |
| | 5.1.6 | Jib strut pin | (6 × 1) | (6) |
| 5.2 | | A planking and strutting or timbering method that is used in loose soil where the excavation depth is no more than 4 m. A box structure is created using sheeting, walling, struts and bracing. | | (4) |
| | | | | [10] |

QUESTION 6

6.1 Average cut surface area = $\frac{2\,680 + 3\,840 + 4\,130}{3} = 3\,550 \text{ m}^2 \checkmark$

Average cut surface area = $\frac{4\,110 + 2\,580 + 4\,800}{3} = 3\,830 \text{ m}^2 \checkmark$

Cut volume = $3\,550 \text{ m}^2 \times 50 \text{ m} \checkmark$

Cut volume = $177\,500 \text{ m}^3 \checkmark$

Fill volume = $3\,830 \text{ m}^2 \times 50 \text{ m} \checkmark$

Fill volume = $191\,500 \text{ m}^3 \checkmark$

$191\,500 \text{ m}^3 - 177\,500 \text{ m}^3 = 14\,000 \text{ m}^3 \checkmark \checkmark$

There will be a shortage of earth with a volume of $14\,000 \text{ m}^3 \checkmark \checkmark$ (10)

6.2

Section	Area	Cut section volume	Fill section volume	Aggregate volume
1	15 m ²	150✓		150
2	37 m ²	370✓		520✓
3	20 m ²	200✓		720
4	50 m ²		500✓	220
5	28 m ²		280✓	-60✓
6	17 m ²	170✓		110
7	8 m ²	80✓		190✓

(10)
[20]

QUESTION 7

7.1 7.1.1 Design changes are usually made as a result of either the continual development of the plan after the construction contract has been awarded to a suitable contractor, or due to a preference change made by the client.

7.1.2 Technological advancement occurs when certain projects may run for a long period of time during which the information and the processes available may change. Should this happen, more advanced information and processes may be used, resulting in a variation.

(2 × 3) (6)

- 7.2
- Time needed to complete the work
 - Materials required
 - Labour required
 - Equipment and machinery required

(4)
[10]

QUESTION 8

8.1	8.1.1	Legislation is a set of laws that are set by the government, such as the various labour acts.		
	8.1.2	Statute is a law passed by a body of legislature, also known as an Act.	(2 × 2)	(4)
8.2	The CIDB sets national standards for construction contracts and delivery by standardising the construction procurement based on best practice. It keeps a national register of contractors and projects.			
	It also focuses on uniformity in construction procurement, efficient and effective infrastructure delivery, construction industry performance improvement, industry transformation and skills development.		(2 × 3)	(6)
8.3	Depending on the specific Act that is not complied with, penalties can range between R1.5 million and up to 10% of an employer's annual turnover.			(2)
8.4	8.4.1	The purpose of the UIF is to provide short-term financial relief to workers who are unemployed or cannot work because of maternity leave or illness.		(2)
	8.4.2	To fund the skills development scheme as set out in the SDAs.		(1)
				[15]
TOTAL:				100