higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

CONSTRUCTION PLANNING
NQF LEVEL 4

21 November 2023

This marking guideline consists of 6 pages.

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QUESTION 1: INTRODUCTION TO CONSTRUCTION CONTRACTS

1.1
1.1.1 C
1.1.2 E
1.1.3 D
1.1.4 A
1.1.5 F
1.1.6 B

(6 × 1) (6)

1.2
- Clear description of what is required.
- Description of the methods and quality of work to apply.
- Clear outline of what will be done if there are delays.
- Clear outline of what will be done if there are variations.
- Duration or timeframe of the project.
- How the employer will pay.
- Start date and end date.
- When the employer will pay.

(Any relevant 5 × 1) (5)

1.3
- Civil engineer
- Electrical engineer
- Mechanical engineer
- Land surveyor
- Health and safety consultant
- Project manager
- Architect
- Quantity surveyor

(Any relevant 4 × 1) (4)
[15]

QUESTION 2: BASIC COMMON AND COMMERCIAL LAW

2.1 2.1.1 A builder's lien is the most powerful tool a contractor has to ensure that the claim for payment is secured.✓ The builder's lien gives the building contractor the right to keep physical possession of the building or site✓ until all the money that is owed has been paid by the client.✓

2.1.2 Lateral support simply means holding back✓ the sides of an excavation to avoid the sides from collapsing✓ and causing damage and additional costs.✓

(2 × 3) (6)

2.2 The landowner has the right to claim for damages✓ and the right to become the new legal owner of the structure. ✓ The landowner has the right to charge the contractor✓ and has no obligation to pay for any costs incurred by the contractor.✓ (4)
[10]

QUESTION 3: STANDARD CONSTRUCTION CONTRACTS

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

(6 × 1) (6)

3.2
- Requesting extension of time.
- Monitoring and evaluating whether the project is going according to schedule.
- Resolving arguments that might occur due to the quality of work.
- Reducing any conflict between the contractor and client.

(Any relevant answer 4 × 1) (4)
[10]

QUESTION 4: TENDERS AND QUOTES

4.1
- Public tenders
- Invited tenders
- Lump-sum contracts
- Labour-only contracts
- Day-work contracts
- Cost-plus contracts

(Any relevant answer 5 × 1) (5)

4.2
- If the contractor fails to specify that the quotation excludes VAT, the law deems VAT included in the contract price.
- The omission of VAT could cost the contractor a large sum of money.
- The contractor cannot withdraw from the tender and must honour the tender amount.

(Any relevant answer 2 × 1) (2)

4.3
- The employer may be suspicious of a price that is too low and worry about inferior work or materials.
- The employer may think that the contractor is inexperienced.
- The employer may worry that the contractor will go out of business before the end of the project due to lack of funds.
- The contractor may lose money if the estimates are not accurate or if no extras are built in for unplanned events.
- The contractor may tarnish his/her reputation.

(5 × 1) (5)

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4.4 A bill of quantities is a very precise, accurate and orderly document consisting of all the materials and activities✓ that go into the construction of a building or structure.✓ This list will include each item needed and the material and labour associated with that particular item.✓ It also carries into effect the intentions of the architect.✓

OR

A bill of quantities reflects the work to be done✓ in sufficient detail in an itemised method✓ according to a set standard and system of measurement.✓

(Any relevant 3 × 1) (3)

[15]

QUESTION 5: QUANTITIES AND COSTING

5.1
- Labour cost
- Electricity and Water
- Storage cost
- Telephone/Cell phone cost
- Delivery charges
- Fuel cost
- Equipment rental
- Security
- Any other relevant cost

(Any relevant answer 3 × 1) (3)

5.2 3 m x 2,276 m =6,828 m²✓
Add 2% waste = 0,137✓ 6,828 + 0,137 = 6,965 m²
6,965 m²✓ x R 250,00 / m² = R 1741,25✓ (4)

5.3 2,276 m x 1,890 m =`4,302 m² ✓
2,376 m x 1,890 m = 4,491 m²✓
4,302 + 4,491 = 8,793 m²✓
Total area = 8,793/m² (3)

5.4 5.4.1 5,772 x 2,4 = 13,853 m²✓
13,853 x 104✓ = 1440,712 say 1441 bricks✓ (3)

5.4.2 1441 x R 2,20 ✓= R3170,20✓ (2)

5.5
- Installing conduits
- Installing the DB board
- Installing the electrical wiring
- Fixing light fittings
- Testing all electrical work
- Issuing the electrical compliance certificate (Any relevant 5 × 1) (5)

[20]

QUESTION 6: PLANNING AND ORGANISING CONSTRUCTION ACTIVITIES

6.1 6.1.1 Critical activity cannot be delayed.✓ If delayed, it would affect the end date of the construction project.✓
No other activity may commence until the critical activity has been completed. ✓ (Any relevant answer)

6.1.2 Non-critical activity can be delayed.✓ If delayed, it will not affect the end date of the construction project.✓
The non-critical activities may commence at the same time as any other activities. ✓ (Any relevant answer)
(2 × 2)_ (4)

6.2 6.2.1 Critical
6.2.2 Non-critical
6.2.3 Non-critical
6.2.4 Critical
6.2.5 Critical
(5 × 1) (5)

6.3
- Establishing the site✓
- Removing all trees✓
- Marking and setting out of building✓
- Excavating foundation trenches✓
- Pouring concrete into trenches✓
- Building foundation walls✓
- Casting concrete slab✓
- Building superstructure walls✓

(8)

6.4
- All building activities must follow in a logical order so that the building can be completed in the shortest possible time period. ✓
- It will eliminate any confusion as to when items must be installed. ✓
- It will eliminate any confusion as to when materials should be delivered to the site.✓
- It will give an indication as to when the workforce will be required on site. ✓

(Any 3 × 1) (3)
[20]

QUESTION 7: PROJECTIONS AND CASH FLOW

		Week 1					Week 2					Week 3					Week 4					Week 5					Week 6					Week 7				
Activity	Days	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Site clearance	5																																			
Setting out of building	2				✓																															
Excavation of trenches	4									✓																										
Casting of concrete foundations and slab	3											✓																								
Super-structure brickwork	9																					✓														
Erection of roof	4																								✓											
Installation of doors and windows	5																													✓						
Plastering of internal walls and floor screeds	4																											✓								
Plastering of external walls	6																																		✓	
Painting of walls	2																																	✓		
	✓																																			

(Overall correct days = 1✓+ 9✓ as shown)

[10]

TOTAL: 100

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