higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

CONSTRUCTION PLANNING
NQF LEVEL 4

27 FEBRUARY 2020

This marking guideline consists of 6 pages.

QUESTION 1: CONSTRUCTION CONTRACTS

1.1 1.1.1 Penalties for late completion
1.1.2 Direct contractor
1.1.3 Prime cost amount
1.1.4 Nominated subcontractor
1.1.5 Breach of contract

(5 × 1) (5)

1.2
- Caveat subscriptor is a Latin term that means signatory beware. ✓It is used as a warning to those who sign a contract that, unless expressly provided for in the document, they are liable for the consequences. ✓

or

- It means that whoever has signed the document is legally responsible for what they have signed, ✓ even if they have not read or understood the contract. ✓ (2)

1.3 1.3.1
- Description of the work to be executed
- The duration of the contract detailing the start and end dates
- The conditions and procedure for the payment to the contractor
- How delays or changes will be accommodated
- What methods and quality of work must apply (5)

1.3.2 Failed to:
- Comply with a contract instruction
- Provide the relevant security
- Provide the relevant insurances (3)

[15]

QUESTION 2: BASIC COMMON LAWS APPLICABLE TO CONSTRUCTION

2.1 2.1.1 False
2.1.2 False
2.1.3 False
2.1.4 False
2.1.5 True

(5 × 1) (5)

2.2 2.2.1 B
2.2.2 A
2.2.3 E
2.2.4 G
2.2.5 C

(5)
(5 × 1) **[10]**

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QUESTION 3: STANDARD CONSTRUCTION CONTRACTS

3.1
- Previous record of poor quality of work of the subcontractor
- The subcontractor refuses to sign the agreement
- The subcontractor cannot provide security as agreed to in the agreement (3)

3.2 3.2.1
- Variation orders are formal requests from the employer for variations to the original plan.
- The employer or designated agent supplies the variation request in duplicate and the contractor receives a signed copy. (2)

3.2.2 Signed variation orders are very important to the contractor as they are proof✓that the employer has requested variations to the original plan. ✓
This proof is necessary as the contactor has a right to submit a price for alterations and variations✓ if the changes to the project are outside the scope of the contract documents. ✓
If such work impacts on the duration of the contract, an extension of time for completion of the contract must be granted. ✓ (5)
[10]

QUESTION 4: TENDERS AND QUOTES

4.1 4.1.1 Invited/Selected tender

4.1.2 Public Open Tender

4.1.3 Labour only Tender

4.1.4 Cost Plus Tender

4.1.5 Day works Contract (5)

4.2 The contractor will put together a tender for the available job by preparing a quotation or bill of quantities. ✓ The idea is to provide a quotation that is both reasonable yet profitable to the contractor. ✓ (2)

4.3
- A contractor should keep detailed records of costs of all aspects of his/her projects.
- He/she uses these details when he/she tenders for similar projects.
- With these details at hand, the contractor can calculate a realistic tender price.
- He/she can also keep an accurate database of costs and this gives him/her an advantage over less experienced contractors when it comes to tendering. (4)

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4.4
- This refers to when the contractor has to cover some of the expenses for the project from his own pocket.
- This happens when the construction expenses exceed the tender price. (2)

4.5
- Reference Column
- Description Column
- Unit Column
- Quantity Column
- Rate Column
- Total Column (Any 2 × 1) (2)

[15]

QUESTION 5: QUANTITIES AND COSTING

NOTE: Alternate method is accepted provided the final calculation is correct.

5.1 $$Volume\ \ excavated = \left[2\times\left(7.1\times 0.7\times 0.45\right)\right]+\left[2\times\left[\left(4.2-1.4\right)\times 0.7\times 0.45\right]\right]$$
$$= 4.473+1.764$$
$$= 6.237m^3$$ (5)

5.2 $$Total\ Cost = 220\times 6.237$$
$$= R1372.14$$ (3)

5.3 *Volume of concrete required*:

[2 × (7,1 × 0,70 × 0,25) + [2 × (4,20- 1,40) × 0,70 × 0,25]

= 2,485 + 0,98

= 3,465 (4)

5.4 $$Vol.concrete\ required = \left[(6.6-0.4)\times(3.7-0.4)\times 0.15\right]$$
$$= 3.069m^3$$ (4)

5.5 *Concrete total*: 3,465 + 3,069

= 6,534

Total costs = R3250 × 6,534

= R21 236.00 (4)

[20]

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QUESTION 6: PLANNING AND ORGANISING CONSTRUCTION ACTIVITIES

6.1
- Critical activities
- Non-critical activities (2)

6.2
- Excavations
- Casting of concrete footings (2)

6.3 6.3.1
- The agreed starting
- The agreed final completion date
- The provisional completion date
- The construction period
- Weekends and public holidays
- Builders holidays. (Any 3 × 1) (3)

6.3.2
- List all the tasks required to complete the project
- List the tasks in the correct sequence
- Consider the tasks that can be done simultaneously
- Consider the curing time for certain tasks, like concrete footings, concrete slabs and plaster. (Any 3 × 1) (3)

6.3.3
- The efficient rate that the workers will take to complete an item.
- The number of man hours required to complete each task
- The duration for each subcontract and other specialist task. (3)

6.3.4
- The correct ordering dates.
- The correct delivery dates of the material
- Some material may have a longer manufacturing period.
- Consider the storage capacity for the material.
- Know when specialist plant must be in place (Any 3 × 1) (3)

6.4
- Painting any plastered area.
- Cleaning any face bricks
- Seal around windows and doors
- Fixing gutters and rainwater down pipes
- Completing landscaping
- Remove all rubble (Any 4 × 1) (4)

[20]

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QUESTION 7: PROJECTIONS AND CASH FLOW

7.1
- Starting date.
- Calendar dates including weekends.
- Public holidays and the annual builders holidays.
- Critical Activities.
- Start and end date for each task.
- Optimistic /provisional completion date.
- Final Completion date.
- Handover date. (Any 5 × 1) (5)

7.2
- Start the business with an injection of working capital.
- Use a credit card to pay for materials.
- Pay workers monthly instead of weekly.
- Negotiate interim payments.
- Use bank overdraft.
- Use bridging finance. (Any 5 × 1) (5)

[10]

TOTAL: 100

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