higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

CONSTRUCTION PLANNING
NQF LEVEL 4

10 November 2022

This marking guideline consists of 6 pages.

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INSTRUCTIONS TO MARKERS

1. Mark all the questions.
2. Follow the answers according to the numbering system used in this question paper.
3. Use only a red pen.
4. Mark your ticks and crosses neatly and legibly.

QUESTION 1: INTRODUCTION TO CONSTRUCTION CONTRACTS

1.1 A payment certificate is the document certifying the amount the client/owner✓ must pay to the contractor. ✓ (2)

1.2 This is the fund established in the name of the contractor and the client with a reputable financial institution for the safekeeping of monies withheld from the contractor. ✓ The maximum value of this fund should not exceed 5% of the contract sum. ✓ The fund is withheld for the purpose to repair any defects that might arise after the contractor has exited the site. ✓ (3)

1.3
- When the contractor fails to carry out all the work.
- When the contractor uses poor quality materials.
- When the contractor does not have the relevant insurance.
- When the contractor does not provide the necessary security.
- When the contractor does not comply with the contract instructions.
- When the contractor does not provide quality workmanship. (Any 4 × 1) (4)

1.4 Additions/Omissions (1)

1.5
- The architect and the contractor must have regular meetings to monitor the quality and the progress.
- The contractor must prepare monthly request for payments to send to the architect
- The employer's representative (architect) will peruse the payment request and will issue a certificate for payment.
- The certificate for payment will be forwarded to the client/employer for payment
- The employer pays the contractor within the stipulated timeframe as stated in the conditions of the contract. (5)

[15]

QUESTION 2: BASIC COMMON AND COMMERCIAL LAW

2.1
2.1.1 Builder's lien
2.1.2 Lateral support
2.1.3 Excavation
2.1.4 Common law
2.1.5 Implied terms in law
2.1.6 Implied term
2.1.7 Title deed

(7 × 1) (7)

2.2
- Both parties must have the capacity to sign the contract.
- The contract must have a fixed time frame.
- A price must be agreed on.
- Agreement on the project to be built on the client's property.

(Any 3 × 1) (3)

[10]

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QUESTION 3: STANDARD CONSTRUCTION CONTRACTS

3.1
- As the main contractor
- As a subcontractor
- As a joint venture partner (3)

3.2 The benefit of using standard contracts in the building is that it is vital for projects to progress smoothly and legally.✓ A standard contract is useful to ensure that all parties involved are fully aware of their responsibilities and rights.✓ It also allows all parties to abide by the same rules and allows all parties involved to be protected✓ and aware of what to do if something should go wrong.✓ (4)

3.3
- Contract site minutes
- Rates in bill of quantities
- Revised contract drawings
- Signed site instructions
- Day work records (Any 3 × 1) (3)

[10]

QUESTION 4: TENDERS AND QUOTES

4.1
4.1.1 document
4.1.2 tendering
4.1.3 materials
4.1.4 price
4.1.5 larger
4.1.6 smaller
4.1.7 five

(7 × 1) (7)

4.2 (Accept any alternate relevant answers for 4.2.1 – 4.2.3)

4.2.1 Invited tenders - a short list of potential bidders is drawn up by the client✓ and they alone are invited to submit bids for providing services.✓

4.2.2 Day works contracts - used when labour and materials are needed for work✓ that requires a day work rate.✓

4.2.3 Public tenders - also known as open tenders,✓ they are advertised in the media requesting the services of a contractor.✓

(3 × 2) (6)

4.3
- Realistic price
- Accurate and clear scope of works
- Validity of the tender
- Approved tender document (Any 2 × 1) (2)

[15]

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QUESTION 5: QUANTITIES AND COSTING

5.1 (Alternate relevant methods accepted for 5.1.1 – 5.1.3)

5.1.1 $A_{windows\,1}$ = 1, 2 m × 1, 2 m ✓
= 1, 44 m^2 ✓ × 6 windows✓
= 8,64 m^2 ✓

$A_{windows\,2}$ = 0,6 m × 0.6 m ✓
= 0, 36 m^2 ✓ × 2 windows✓
= 0,72 m^2 ✓

Total area of all window openings = 8,64 m^2 + 0,72 m^2 ✓
= 9.36 m^2 ✓ (10)

5.1.2 A_{door} = 2,03 m × 0.81 m ✓
= 1,6443 m^2 ✓ × 2 doors✓
= 3.2886 m^2 ✓ total area of door openings (4)

5.1.3 Carried forward: 9.36 m^2 ✓ × 13 blocks per m^2 ✓
= 122✓ blocks will be deducted to accommodate for all the windows. (3)

5.2 3 × 3 × 2 = 18
3 × 4 × 1 = 12✓

18 + 12 = 30✓

8/20 × 30 = 12 hours✓ (3)
[20]

QUESTION 6: PLANNING AND ORGANISING CONSTRUCTION ACTIVITIES

6.1
6.1.1 Non-critical
6.1.2 Critical
6.1.3 Non-critical
6.1.4 Non-critical
6.1.5 Non-critical
6.1.6 Critical
6.1.7 Critical

(7 × 1) (7)

(Accept alternative correct answers)

6.2.1
- Site set up and management
- Setting up of temporary offices
- Checking Boundary pegs and setting out building lines

(3)

6.2.2
- Marking and excavation
- Excavation for foundations
- Casting of concrete foundation

(3)

6.2.3
- Foundation brickwork
- Filling undersurface bed
- Casting of concrete slab

(3)

6.2.4
- Set up corner profiles
- Set up door frames
- Superstructure brickwork
- Installing windows

(4)

[20]

QUESTION 7: PROJECTION AND CASH FLOWS

7.1
- The cost of materials and labour does not increase much over a shorter period.
- The contractor can move to the next project faster.
- More people can be employed.
- Overlapping activities allow for the project to be completed sooner.
- It allows for the project to remain on schedule.
- The construction process is standardized. (Any 5 × 1) (5)

7.2 Number of man hours = 90/15✓
= 6 days × 8✓
= 48 man hours will be required.✓ (3)

7.3 Fast tracking is the process that makes it possible to speed up✓ the construction activities by overlapping these activities. ✓ (2)

[10]

TOTAL: 100

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