higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

ARCHITECTURAL GRAPHICS AND TECHNOLOGY
(Second paper)
NQF LEVEL 4

24 November 2023

This marking guideline consists of 4 pages.

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QUESTION 1

1.1 1.1.1 South African Institute of Architectural Technology
1.1.2 South African Institute of Architects
1.1.3 South African Council for the Architectural Profession
1.1.4 Engineering Council South Africa
1.1.5 South African Institute of Draughting
(5 × 2) (10)

1.2 SACAP is a council that operates directly under the council for the built environment and oversees voluntary associations (VAs). The SAID is one of these VAs. (2 × 2) (4)

1.3 1.3.1 Land surveyor
1.3.2 Structural engineer
1.3.3 Architectural professional
(3 × 2) (6)
[20]

QUESTION 2

2.1 Refer to DIAGRAM SHEET 1 and label the following elements on the staircase shown.

2.1.1 A − Tread
2.1.2 B − Riser
2.1.3 C − Balustrade
2.1.4 D − Newel post
2.1.5 E − Typical straight stair example
(5 × 2) (10)

2.2
- Dog leg
- Spiral
- Straight stair
- L-shape (Any 3 × 2) (6)

2.3
- Steel
- Concrete
- Timber (Any 2 × 2) (4)

[20]

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QUESTION 3:

3.1 3.1.1 180 m^2 + 46 m^2 = 226 m^2 divided by erf size 900 × 100 = 25% coverage

3.1.2 282 m^2 + 36 m^2 = 318 m^2 divided by erf size 600 m^2 × 100 = 53% coverage

3.1.3 350 m^2 + 120 m^2 + 46 m^2 = 516 m^2 divided by 1150 m^2 erf × 100 = 45%

3.1.4 120 m^2 + 60 m^2 + 20 m^2 = 200 m^2 divided by 450 m^2 erf × 100 = 44%.

(4 × 5) (20)

3.2 3.2.1 A – Building line
3.2.2 B – Boundary line
3.2.3 C – North point
3.2.4 D – Proposed dwelling
3.2.5 E – Boundary peg

(5 × 2) (10)

3.3
- Floor layout plans of all levels
- Elevations
- Section/s
- Window and door schedules
- Drainage on layouts, site plan, elevations and section/s
- Construction details (Any 5 × 1) (5)

3.4 When working with an architect or architectural technologist on an architectural design, they will compile a set of rough conceptual sketches to unpack the architectural design.✓ These sketches are not 100% accurate, however, they start explaining possible directions.✓ These sketches start to detail the scope of works, which are attached to a budget.✓ The architectural designer can possibly compile several designs for comment before the end-product is determined.✓ Then working drawings will start to be compiled after the sketches are approved by the client or the senior architectural design professional.✓ (5)

[40]

QUESTION 4

4.1
- Tendering costs
- NHBRC registration fees
- MBA membership fees
- Professional indemnity
- Storage costs
- Vehicle repayment costs
- Insurance
- Deprecation of machinery and vehicles
- UIF
- Skills training levy
- Security
- Bank overdraft fees
- Bank charges
- Inspection certificates (Any 10 × 1) (10)

4.2
4.2.1 A − Superstructure
4.2.2 B − Weep holes
4.2.3 C − Wall plate
4.2.4 D – Wall tie
4.2.5 E – Sub-structure

(5 × 2) (10)
[20]

TOTAL: 100

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