higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE (VOCATIONAL)

ARCHITECTURAL GRAPHICS AND TECHNOLOGY
NQF LEVEL 4
(Second paper)

20 November 2024

This marking guideline consists of 4 pages.

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QUESTION 1: ADMINISTRATION, LEGISLATION AND REGULATIONS

1.1
1.1.1 NHBRC – National Home Builders Regulation Council✓✓
1.1.2 SABS – South African Bureau of Standards✓✓
1.1.3 VA – Voluntary Association✓✓
1.1.4 SACAP – South African Council For The Architectural Profession✓✓
1.1.5 SAIBD – South African Institute of Building Design✓✓
(5 × 2) (10)

1.2
- Construct according to prescribed rules and regulations. (Deem to satisfy)
- Submit a rational design.
- Build with a product that has an agreement certificate. (Any 2 × 2) (4)

1.3
1.3.1 Quantity surveyor✓✓
1.3.2 Conveyancer✓✓
1.3.3 Structural engineer✓✓
(3 × 2) (6)
[20]

QUESTION 2: STAIRCASES AND LADDERS

2.1
2.1.1 A = Newel post✓✓
2.1.2 B = Tread✓✓
2.1.3 C = Balustrade✓✓
2.1.4 D = Riser✓✓
2.1.5 E = Typical dogleg staircase✓✓
(5 × 2) (10)

2.2
2.2.1 A = Dogleg staircase✓✓
2.2.2 B = Straight staircase✓✓
2.2.3 C = Spiral staircase✓✓
(3 × 2) (6)

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

[20]

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QUESTION 3: BUILDING PLANS

3.1 3.1.1 210 m^2 + 36 m^2 = 246 m^2 divided by erf size 750 × 100 = 32.8% coverage.✓✓✓✓✓

3.1.2 120 m^2 + 36 m^2 = 156 m^2 divided by erf size 420 m^2 × 100 = 37.1% coverage.✓✓✓✓✓

3.1.3 430 m^2 + 300 m^2 + 52 m^2 = 782 m^2 divided by 1 520 m^2 erf × 100 = 51.4%.✓✓✓✓✓

3.1.4 180 m^2 + 120 m^2 + 40 m^2 = 340 m^2 divided by 638 m^2 erf × 100 = 53.2%.✓✓✓✓✓

(4 × 5) (20)

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

(5 × 2) (10)

3.3 3.3.1 A = 550✓✓
3.3.2 B = 11 200✓✓
3.3.3 C = Gradient✓✓
3.3.4 D = Gully trap✓✓
3.3.5 E = Toilet (WC)✓✓

(5 × 2) (10)
[40]

QUESTION 4: QUANTITIES AND COSTING IN A BUILDING PLAN

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)

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4.2	4.2.1	A = Substructure✓✓
	4.2.2	B = Strip foundation✓✓
	4.2.3	C = Weep hole✓✓
	4.2.4	D = Concrete lintel✓✓
	4.2.5	E – Brick tie✓✓

(5 × 2) (10)
[20]

TOTAL: 100

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