higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

BRICKLAYING AND PLASTERING THEORY N1

2 August 2021

This marking guideline consists of 6 pages.

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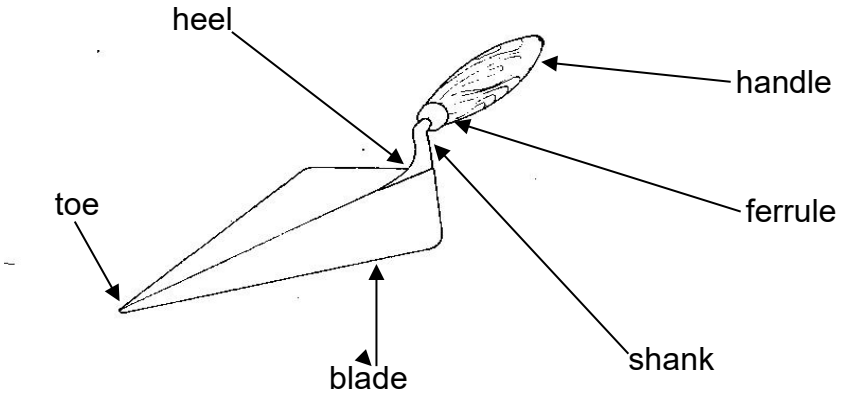
QUESTION 1

1.1
1.1.1 C
1.1.2 B
1.1.3 C
1.1.4 D
1.1.5 B

(5 × 1) (5)

1.2 Good housekeeping refers to the routine operations that are necessary to ensure a neat, tidy, productive and safe workplace. (2)

1.3



Labelling: 3
Correctness: 2
Total: 5

(5)

1.4
- Long jointer.
- Short jointer.
- Pointing trowel. (3)

1.5
- Rapid-hardening Portland cement (RHPC).
- Portland blast-furnace cement (PBFC).
- Sulphate-resisting Portland cement (SRPC).
- High-alumina cement (HAC).
- White cement.
- Portland cement.
- Ordinary Portland cement. (Any 5 × 1) (5)

[20]

QUESTION 2

2.1
- Glazing with putty in the case of wood or metal frames.
- Glazing with special beads.
- Glazing with sealants.
- Glazing into grooves with gaskets. (Any 2 × 1) (2)

2.2
- Check that the interior of the mould is clean.
- Place the base plate on the floor.
- Place the mould on the base plate.
- Fill the mould with a sample of concrete in four layers.
- Tamp each layer with 25 strokes of the steel tamping rod.
- Remove the mould vertically and place the mould upside down next to the concrete on the base plate.
- Lay the rod on the mould and measure the distance between the rod and the concrete. (7)

2.3
- Temporary structures
- Walling in houses
- Driveways
- Roof screed
- Reservoir walls
- Retaining walls
- Garden walling (Any 4 × 1) (4)

2.4
2.4.1 Weathering
2.4.2 Cohesion
2.4.3 Properties
2.4.4 Dry
2.4.5 Greater
(5 × 1) (5)

2.5
- Floor plans
- Elevations
- Site plans
- Sections (Any 2 × 1) (2)

[20]

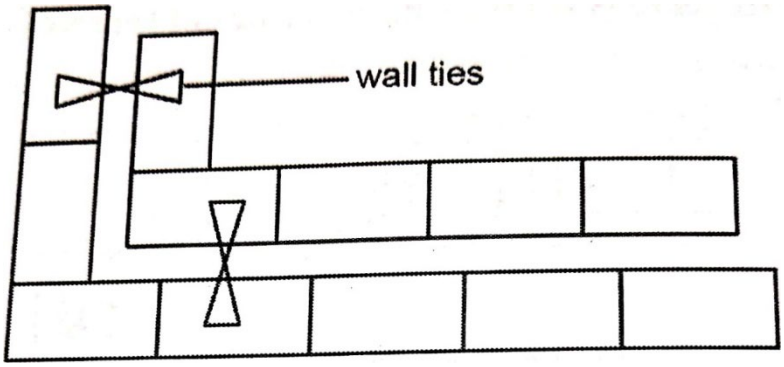
QUESTION 3

3.1 A – Profile boards
B – Datum post
C – Diagonal checks
D – Main setting-out line
E – Base line
F – Site boundary (6)

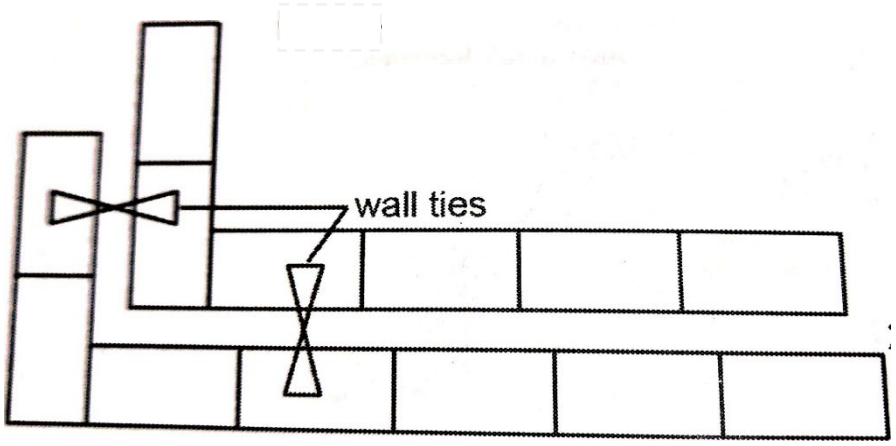
3.2 It varies from 5 m to 10 m. (1)

3.3
- First, half of the stone and water.✓
- Then the cement.✓
- Followed by the sand✓ and the rest of the stone and water.✓
- Mix the materials for two minutes✓ or until grey colour is obtained.✓ (6)

3.4



First course



Second course

Correctness: 2
Bond: 2
Scale: 1
Total: 5

(5)

3.5 Brick bonding is the method applied or pattern followed when a bricklayer constructs a masonry wall. (2)

[20]

QUESTION 4

4.1
- Stretcher course
- Sailor course
- Header course
- Brick-on-edge header course
- Soldier course
- Brick-on-edge stretcher course (Any 3 × 1) (3)

4.2
- Mastic asphalt
- Bituminous
- Polymer
- Bitumen polymer felts
- Plastic membranes
- Elastomeric membranes
- Polyethene (Any 5 × 1) (5)

4.3
- Workable
- Cohesive
- Plastic
- Able to retain water so that it does not dry out too quickly (4)

4.4
- Unglazed tiles
- Ceramic tiles
- Terracotta tiles
- Porcelain tiles
- Glazed tiles
- Listellos or border tiles (Any 3 × 1) (3)

4.5
- Herringbone pattern
- Checkerboard pattern
- Pinwheel and windmill pattern
- Basket weave pattern
- Diamond pattern
- Hexagon pattern (Any 3 × 1) (3)

4.6 A soffit is the underside of an arch. (2)
[20]

QUESTION 5

5.1 The Welsh arch consists of a wedge-shaped bridge✓ that is usually supported by two projecting stretchers.✓ The jack arch is an arch that is intended to be perfectly horizontal, but in order to prevent the optical illusion of sagging.✓ (3)

5.2
- Plane
- Concave
- Convex
- Compound (4)

5.3
- Are heat resistant
- Have low shrinkage
- Provide good cohesion
- Have high strength
- Result in a strong bond
- Are versatile
- Have flexural strength
- Are wear resistant
- Are moisture resistant (Any 4 × 1) (4)

5.4 Area = 6 × 3,5
= 21 m^2 ✓

Number of bricks for double wall = 21 × 107 ✓
= 2247 bricks ✓

Amount of mortar, V = l × h × t
= 6 × 3.5 × 0,019 ✓
= 0,0399 m^3 ✓ (5)

5.5 Area of a tile = 0,35 × 0,35
= 0,123 m^2✓
Number of tiles per square meter = 1 ÷ 0,123
= 8,13 tiles per square meter ✓

Area of a slab = 7 × 2,5
= 17,5 m^2✓

Number of tiles needed = 17,5 × 8,13
= 142,28 tiles✓ (4)
[20]

TOTAL: 100

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