higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

APRIL EXAMINATION

CARPENTRY AND ROOFING THEORY N2

17 APRIL 2015

This marking guideline consists of 9 pages.

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QUESTION 1: SETTING OUT OF BUILDINGS

1.1 1.1.1 D √

1.1.2 B √

1.1.3 A √

1.1.4 E √

1.1.5 C √

(5 x 1) (5)

1.2 Working drawings are the main documentation prepared by the architect from which the quantity surveyor prepares the bills of quantities. √
A good set of drawings is comprehensive with descriptive notes, and supplemented by details to larger scales as necessary. √.
Engineers design and prepare their working drawings from the architect's working plans. . √
Working drawings are the drawings which the contractor uses to construct the work on site.

(Any 3 x 1) (3)

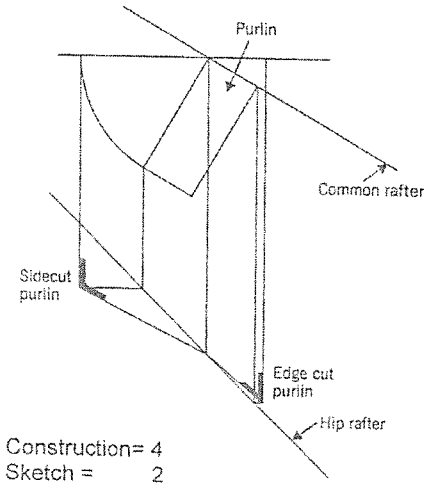
1.3
- The water level is used to determine the difference in height between two or more points√
- The water level is used to transfer levels from one level point to another point√.

(2)
[10]

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QUESTION 2: ROOF CONSTRUCTION

2.1



Construction= 4
Sketch = 2
Labels = 4
Total = 10

(10)

2.2
- By means of hurricane clips√
- By using a combination of wire and nails√
- By using a combination of wire clips and nails
- By using a combination of nails and hoop iron

(Any 2 x 1) (2)

2.3 Nail the truss from both sides with 100 mm nails into the wall plate√
Strap hoop iron firmly over the truss and nail securely√
Ensure that the hoop iron is long enough to tie down both the wall plate and the truss. √ (3)

2.4 2.4.1 Rafter: 38 mm x 228 mm √ ; Grade: 8 √ (2)

2.4.2 Tie beam:: 38 mm x 228 mm√
Grade: 6 or 8√ (2)

2.4.3 Maximum spacing: 1 400 mm√ (1)
[20]

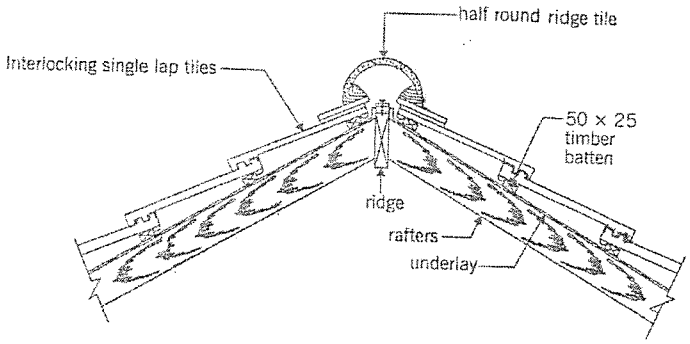
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QUESTION 3: ROOF COVERING

3.1
- That the roof covering is water and hail resistant. √
- The influence of climatic conditions and changes√.
- Reflection and absorption of heat and cold. √
- That it is sound proof√.
- That it is resistant to rust and corrosion. √
- The cost – economical.
- The availability of the roof covering.
- The attractiveness.
- Durability and mass
- The roof construction

(Any 5 x 1) (5)

3.2



Sketch = 4
Labels = 6
Total = 10

(10)
[15]

QUESTION 4: CEILINGS

4.1
4.1.1 E√
4.1.2 F√
4.1.3 G√
4.1.4 A√
4.1.5 H√
4.1.6 C√
4.1.7 B√
4.1.8 D√

(8 x 1) **[8]**

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QUESTION 5: DORMER-ROOF CONSTRUCTION

5.1 5.1.1 Trimmer √

5.1.2 Wall plate√

5.1.3 Studs√

5.1.4 Rafter √

5.1.5 Line of cheek √

5.1.6 Bearer √

5.1.7 Post √

5.1.8 Trimmer √

5.1.9 Cill √

5.1.10 Sash √

5.1.11 Head √

5.1.12 Fascia board √

5.1.13 Cladding √

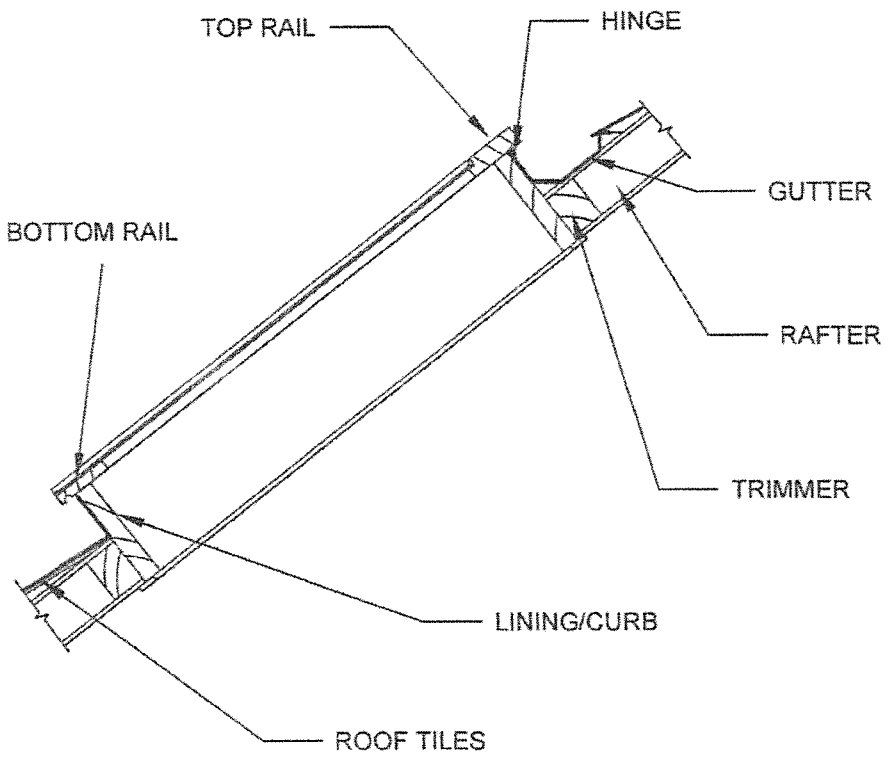
5.1.14 Ridge √

5.1.15 Spars √

(15 x 1) **[15]**

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QUESTION 6: ROOF-LIGHT CONSTRUCTION

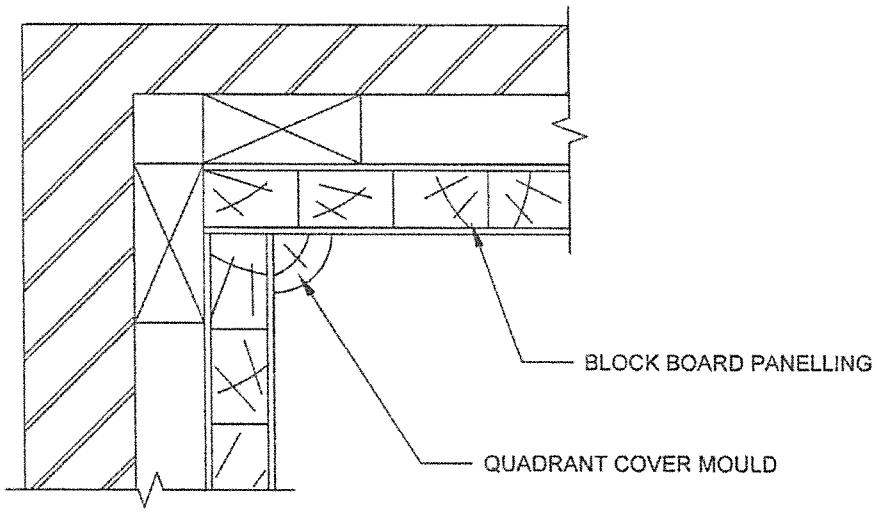


Mark allocation
Labels = 8 (1 mark per label)
Drawing = 4
Total 12 **[12]**

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QUESTION 7: THIS QUESTION IS FOR CARPENTRY CANDIDATES ONLY

7.1.1

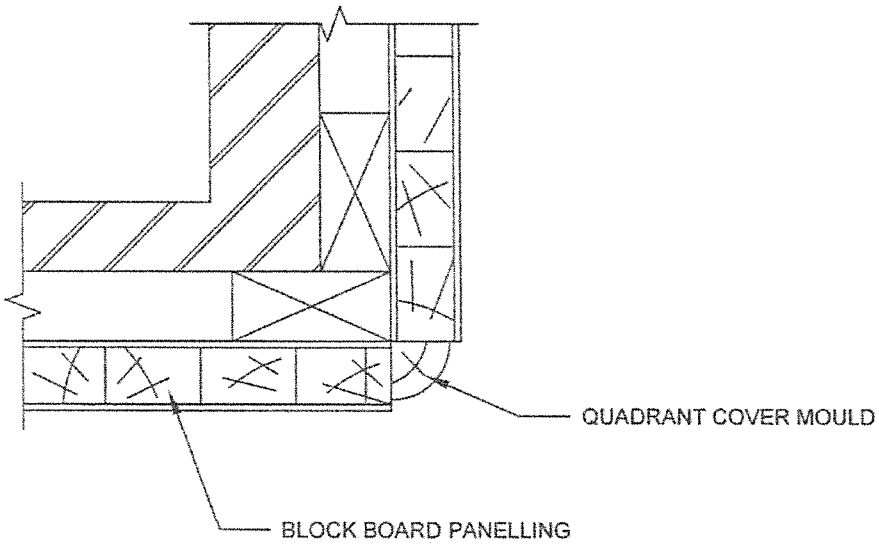


Mark allocation

Labels	=	1 (max)
Drawing correct	=	2
Total		3

(3)

7.1.2



Mark allocation

Labels	=	1 (max)
Drawing correct	=	2
Total		3

(3)

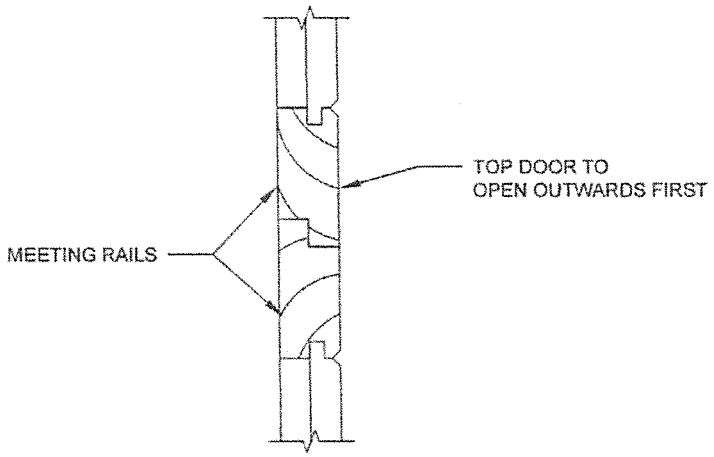
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7.2 7.2.1 Head plate √

7.2.2 Sole plate √

7.2.3 Wall stud √ (3 x 1) (3)

7.3



Mark allocation
Labels = 2 (max)
Drawing correct = 3
Total 5 (5)

7.4 7.4.1 **Easing** and **Striking** means the slackening or slightly lowering√ and the removal of the wedges√, posts and centres. (2)

7.4.2 A **kicker** is a small upstand of concrete or timber√, the same size as plan view of the column, to locate and secure the bottom of the formbox, √and to prevent concrete loss at the base of the column. (2)

7.5
- To support a structure that show signs of weakness due to ground subsidence or foundation sagging√
- To support a structure that has become defective and most probably going to collapse√.
- To give support to an adjacent structure or building where extensive alterations or demolition works are in operation.
- To support the walls of a structure which tends to become bulgy and full of cracks.

(Any 2 x1) (2)
[20]

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QUESTION 8: THIS QUESTION IS FOR ROOFING CANDIDATES ONLY

8.1

	USES	ADVANTAGES
8.1.1	COPPER • Roof covering√ • Flashing√ • Rivets	• Rust-free√ • Fairly soft to work with√ • Bends easily • Malleable (Any 2+2) (4)
8.1.2	LEAD • Flashing√ • Roof coverings√	• Rust-free√ • Very soft√ • Malleable (Any 2+2) (4)

8.2

8.2.1 Overhang into gutter √

8.2.2 Gutter √

8.2.3 Gutter bracket √

8.2.4 Outlet √

8.2.5 Offset √

8.2.6 Downpipe √

8.2.7 Holderbat √

8.2.8 Shoe √

(8 x 1) (8)

8.3

8.3.1 Slater's hammer. √

8.3.2 Slate ripper. √

8.3.3 Parallel shears. √

8.3.4 Slate cutter. √

(4 x 1) (4)

[20]

TOTAL: 100

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