



**higher education
& training**

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

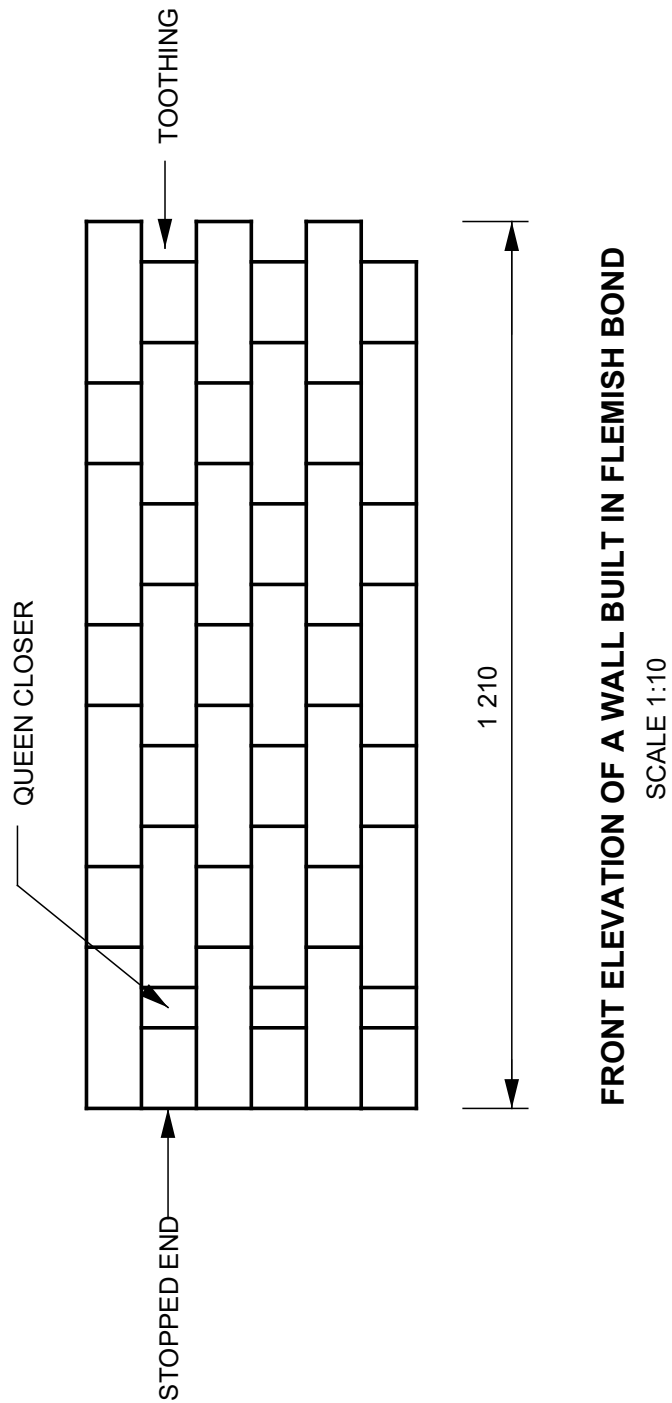
NATIONAL CERTIFICATE

BUILDING DRAWING N3

25 JULY 2019

This marking guideline consists of 17 pages.

QUESTION 1: BRICKWORK



RUBRIC FOR QUESTION 1

Part of drawing	Correct position	Correct shape	Hatching	Labels	Total
Wall	1	1		1	3
Bricks	1	1		1	3
Queen closer	1	1		1	3
Bonding	1	1			2
Title					1
Scale					1
Accuracy					1
Line work					2
Subtotal					16
Divide by					2
TOTAL:					8

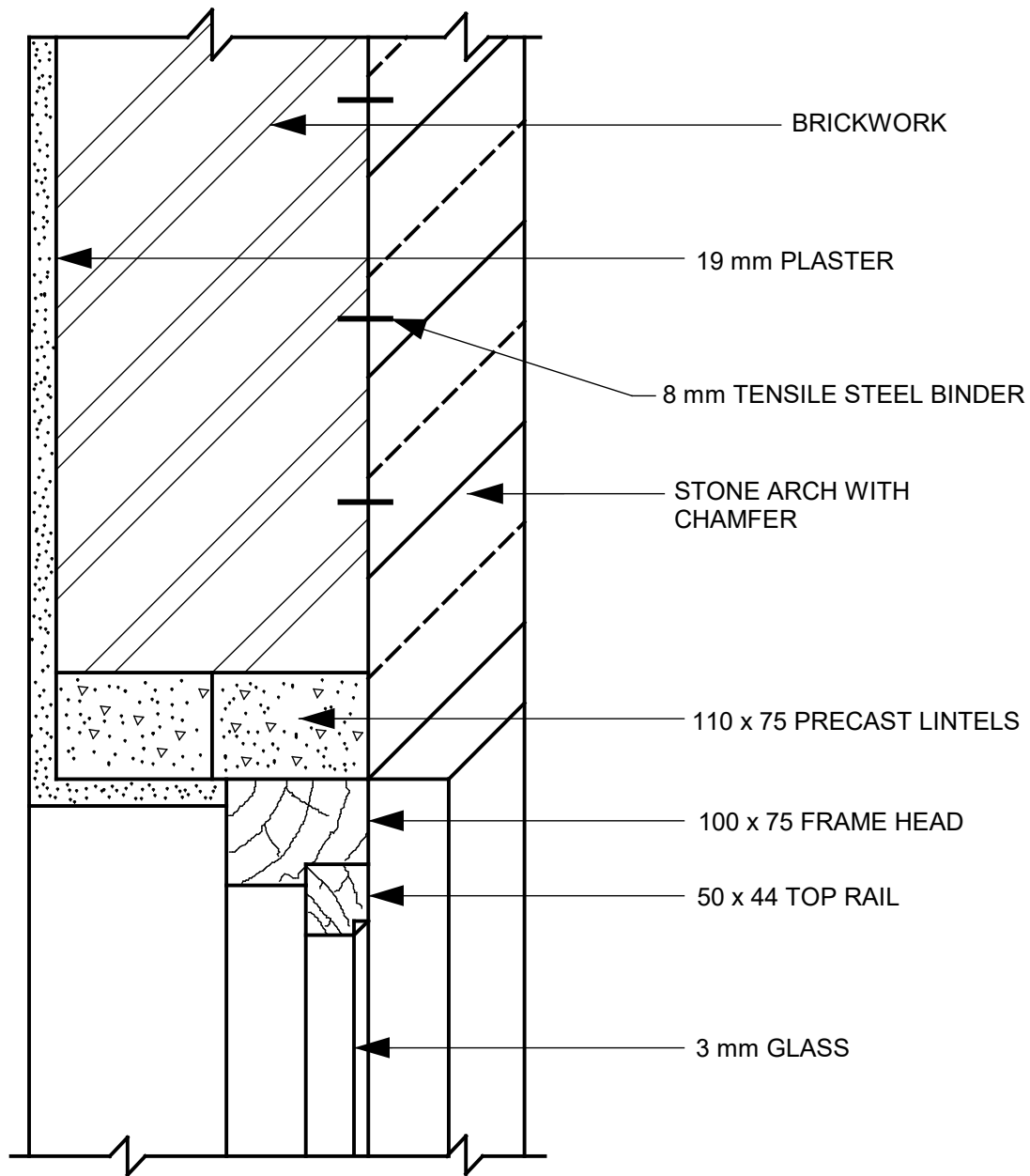
SUMMARY QUESTION 1

Marking criteria	Possible mark	Marker	Internal moderator	External moderator
Correct position	4			
Correct shape	4			
Hatching				
Labels	3			
Title	1			
Scale	1			
Accuracy	1			
Line work	2			
Subtotal	16			
Divide by	2			
TOTAL:	8			

NB: If any part of the drawing is drawn in the incorrect position NO marks should be allocated for this part of the drawing.

[8]

QUESTION 2: MASONRY



**VERTICAL SECTION AT B-B
SCALE 1:5**

RUBRIC FOR QUESTION 2

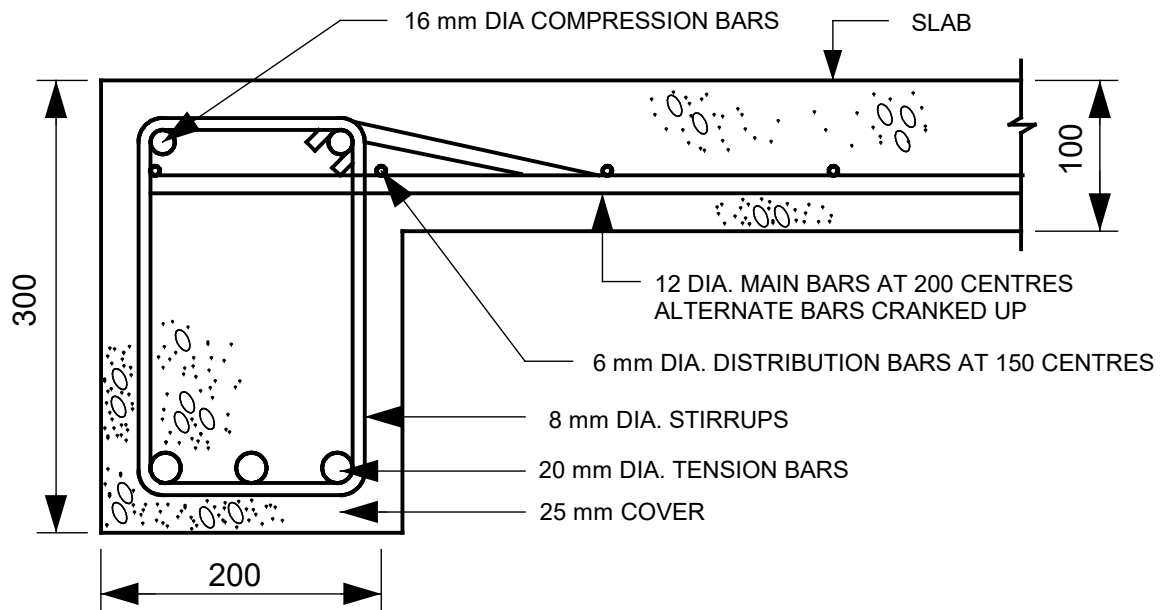
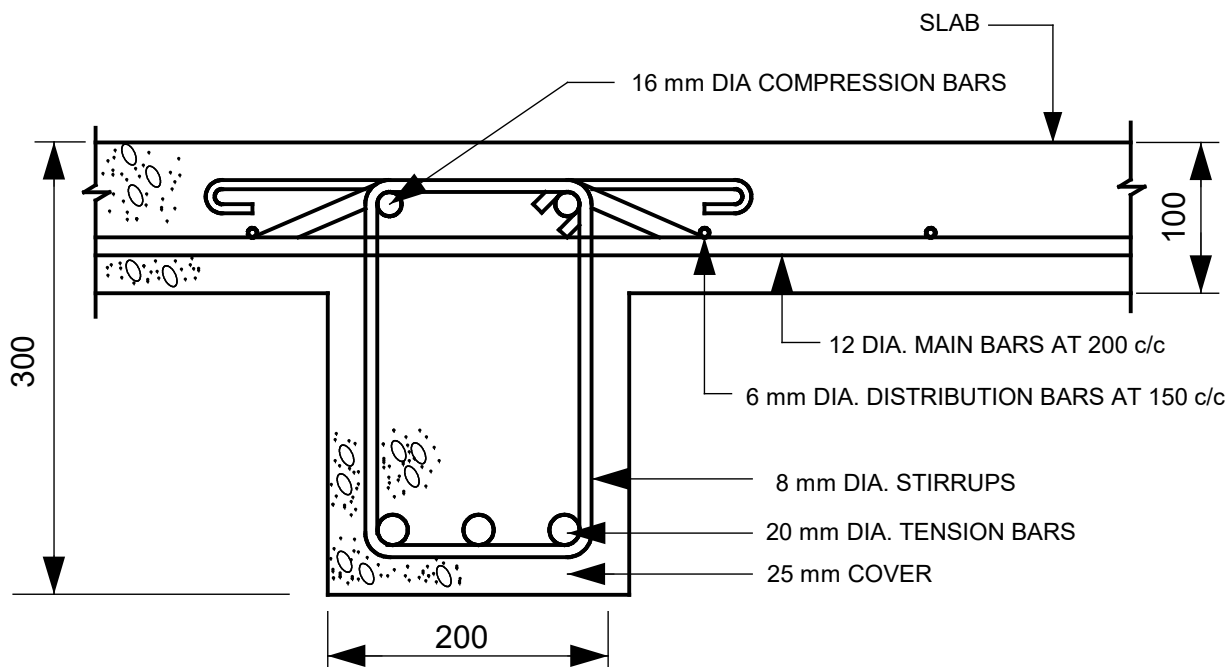
Part of drawing	Correct position	Correct shape	Hatching	Labels	Total
Stonework	1	1	1	1	4
Bricks					
Plaster					
External and internal walls	1	1	1	1	4
Frame and stile					
Top rail	1	1	1	1	4
Glass					
Ties and DPC	1	1	1	1	4
Title					1
Scale					1
Accuracy					1
Line work					1
Subtotal					20
Divide by					2
TOTAL:					10

SUMMARY QUESTION 2

Marking criteria	Possible mark	Marker	Internal moderator	External moderator
Correct position	4			
Correct shape	4			
Hatching	4			
Labels	4			
Title	1			
Scale	1			
Accuracy	1			
Line work	1			
Subtotal	20			
Divide by	2			
TOTAL:	10			

NB: If any part of the drawing is drawn in the incorrect position NO marks should be allocated for this part of the drawing.

[10]

QUESTION 3: FLOORS**L - BEAM** SCALE 1:5**T - BEAM** SCALE 1:5

RUBRIC FOR QUESTION 3

Part of drawing	Correct position	Correct shape	Hatching	Labels	Total
L-beam Beam and slab	2	2	2	2	8
T-beam Beam and slab	2	2	2	2	8
L-beam Main bars, distribution bars, tension bars, stirrups and cover	4	2		2	8
T-beam Main bars, distribution bars, tension bars, stirrups and cover	4	2		2	8
Title					1
Scale					1
Accuracy					1
Line work					1
Subtotal					36
Divide by					2
TOTAL:					18

SUMMARY QUESTION 3

Marking criteria	Possible mark	Marker	Internal moderator	External moderator
Correct position	12			
Correct shape	8			
Hatching	4			
Labels	8			
Title	1			
Scale	1			
Accuracy	1			
Line work	1			
Subtotal	36			
Divide by	2			
TOTAL:	18			

[18]

Technical cross-section drawing of a roof structure. The drawing shows the following components and dimensions:

- Polished Cement Coping**: The top surface of the roof.
- Flashing**: The material at the edge of the roof.
- 375 Micron**: The thickness of the coping.
- 75 x 50 mm Purlins**: The horizontal structural members.
- 38 x 38 Hangers at 500 c/c**: The vertical structural members.
- 114 x 38 Rafters**: The diagonal structural members.
- 38 x 38 Batten**: The horizontal members supporting the ceiling.
- 6 mm Rhino Board Ceiling**: The ceiling material.
- 75 mm Cove Cornice**: The decorative molding at the edge.
- 12 mm Quadrant**: The curved section of the cornice.
- 5 000**: The overall length of the roof section.
- 100 m Halfround Gutter**: The gutter at the edge.
- 230 x 32 Fascia**: The horizontal board at the edge.
- 3 mm Fibre Cement Board**: The board at the edge.
- 75 mm Dia. Down Pipe**: The pipe for water drainage.
- 300**: The distance from the fascia to the down pipe.
- 11°**: The angle of the rafters.

VERTICAL SECTION THROUGH A FLAT ROOF

SCALE 1:20

RUBRIC FOR QUESTION 4

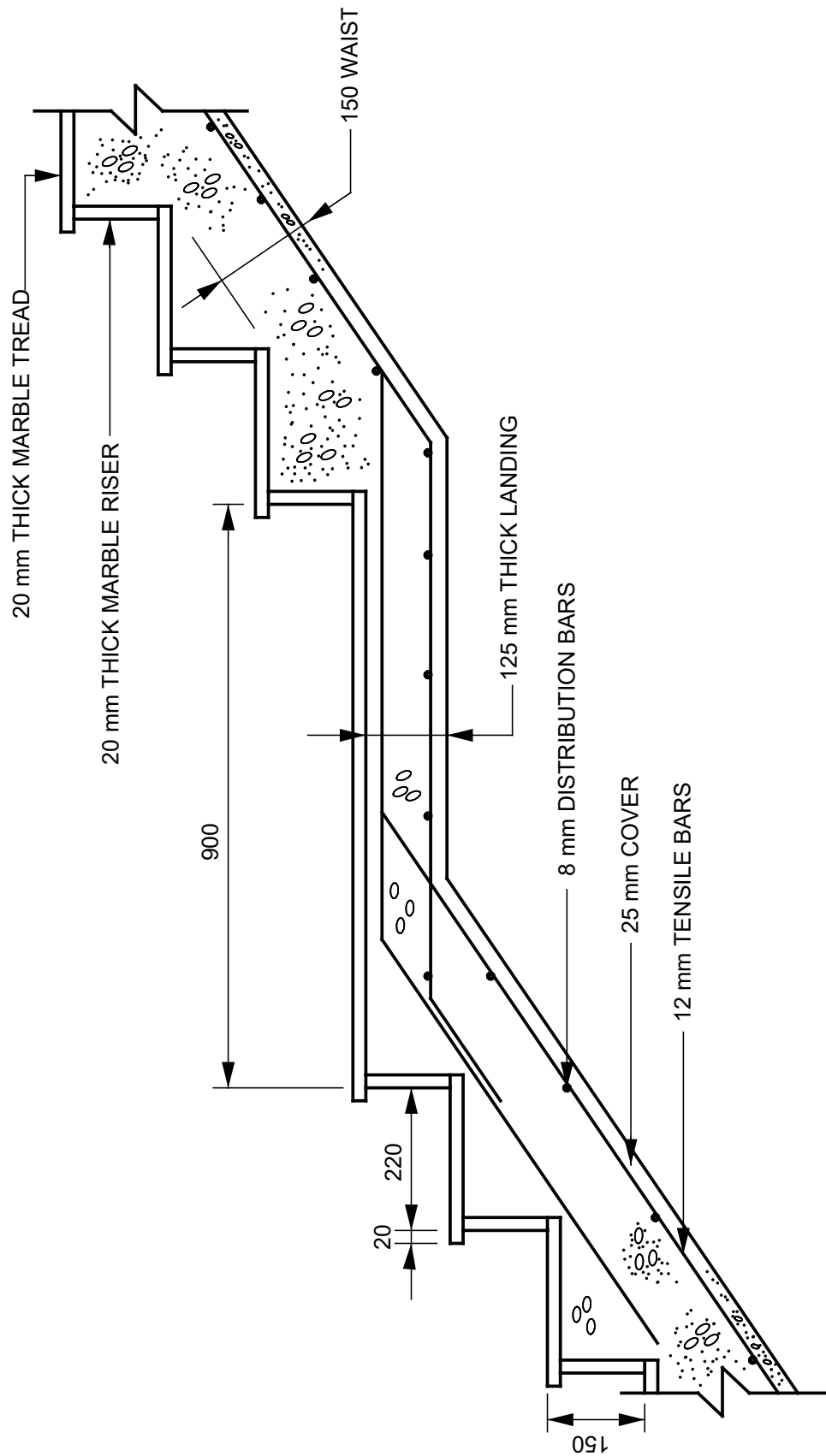
Part of drawing	Correct position	Correct shape	Hatching	Labels	Total
Rafters, purlins, sheeting, pitch and flashing	4	2	2	2	10
Battens, hangers, ceiling board and cornice	4	2	2	2	10
Overhang, fibre board, fascia, gutter and downpipe	2	2	2	2	8
Walls and coping	2	2	2	2	8
Title					1
Scale					1
Accuracy					1
Line work					1
Subtotal					40
Divide by					2
TOTAL:					20

SUMMARY QUESTION 4

Marking criteria	Possible mark	Marker	Internal moderator	External moderator
Correct position	12			
Correct shape	8			
Hatching	8			
Labels	8			
Title	1			
Scale	1			
Accuracy	1			
Line work	1			
Subtotal	40			
Divide by	2			
TOTAL:	20			

NB: If any part of the drawing is drawn in the incorrect position NO marks should be allocated for this part of the drawing.

[20]

QUESTION 5: STAIRS

SECTION THROUGH REINFORCED CONCRETE STAIRS
SCALE 1:10

RUBRIC FOR QUESTION 5

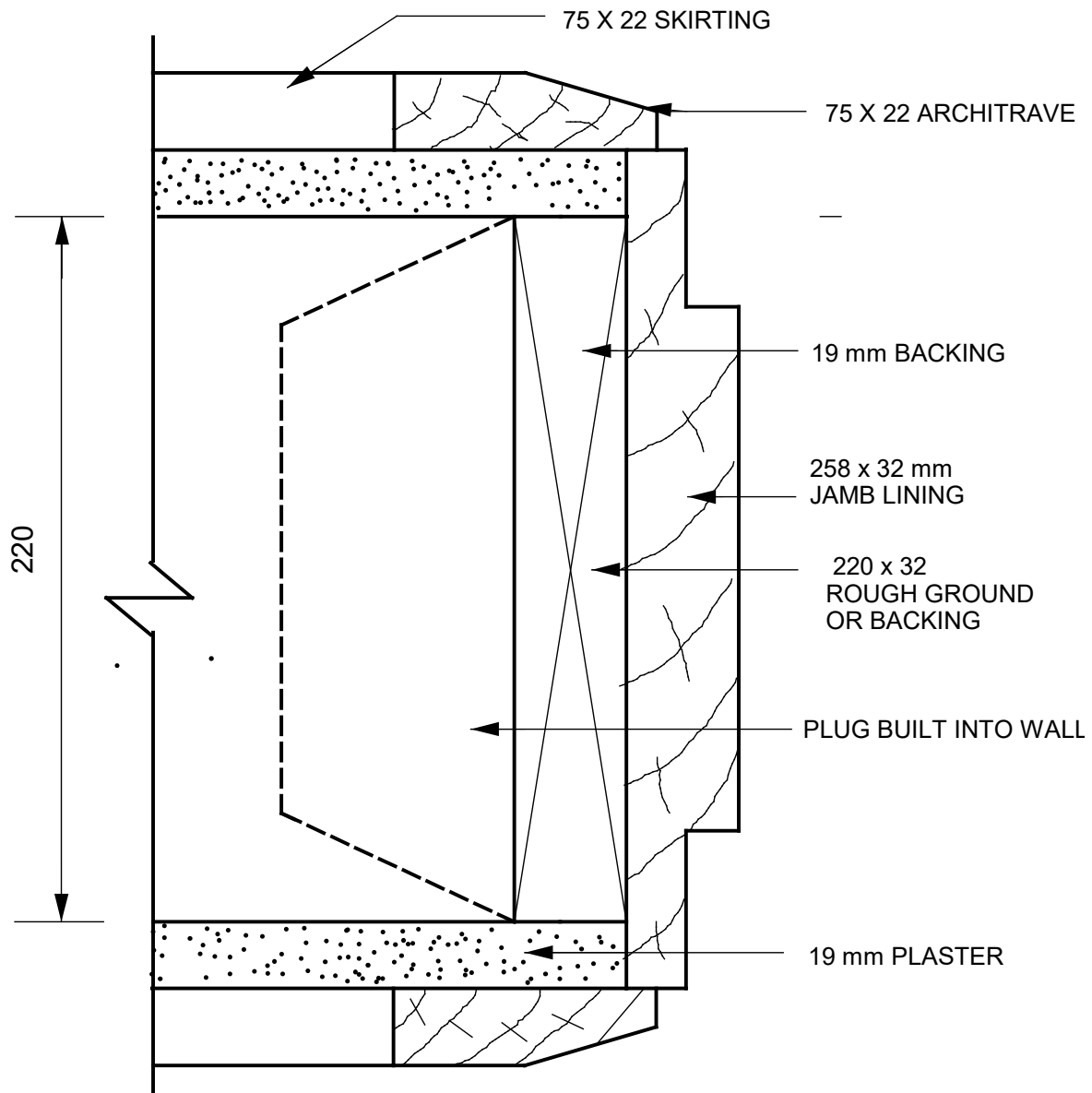
Part of drawing	Correct position	Correct shape	Hatching	Labels/ Practicality	Total
Landing, treads and risers	3	2	1	2	8
Waist and cover	3	2		2	7
Distribution and tensile bars	3	2		2	7
Marble balustrade	3	2	1	2	8
Title					2
Scale					2
Accuracy					2
Line work					2
Subtotal					38
Divide by					2
TOTAL:					16

SUMMARY QUESTION 5

Marking criteria	Possible mark	Marker	Internal moderator	External moderator
Correct position	12			
Correct shape	8			
Hatching	2			
Labels	8			
Title	2			
Scale	2			
Accuracy	2			
Line work	2			
Subtotal	38			
Divide by	2			
TOTAL:	16			

NB: If any part of the drawing is drawn in the incorrect position NO marks should be allocated for this part of the drawing.

[16]

QUESTION 6: JOINERY

HORIZONTAL SECTION THROUGH A DOUBLE-REBATED SOLID JAMB
SCALE 1:2

RUBRIC FOR QUESTION 6

Part of drawing	Correct position	Correct shape	Hatching	Labels/ Practicality	Total
Wall and plaster	2	1	1	1	5
Backing and wall plug	2	1	1	1	5
Jamb and rebate	2	1	1	1	5
Architrave and skirting balustrade	2	1	1	1	5
Title					1
Scale					1
Accuracy					1
Line work					1
Subtotal					24
Divide by					2
TOTAL:					12

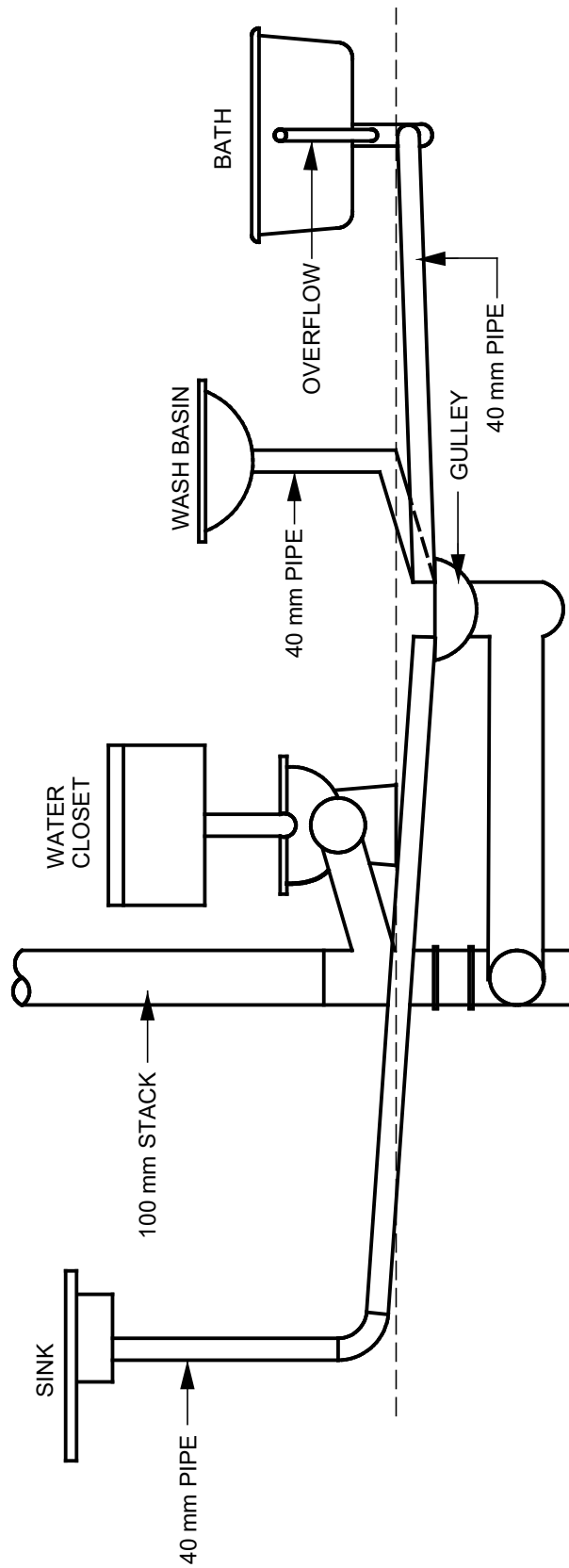
SUMMARY QUESTION 6

Marking criteria	Possible mark	Marker	Internal moderator	External moderator
Correct position	8			
Correct shape	4			
Hatching	4			
Labels	4			
Title	1			
Scale	1			
Accuracy	1			
Line work	1			
Subtotal	24			
Divide by	2			
TOTAL:	12			

NB: If any part of the drawing is drawn in the incorrect position NO marks should be allocated for this part of the drawing.

[12]

QUESTION 7: PLUMBING



SINGLE STOREY BUILDING STUB STACK PIPE SYSTEM

RUBRIC FOR QUESTION 7

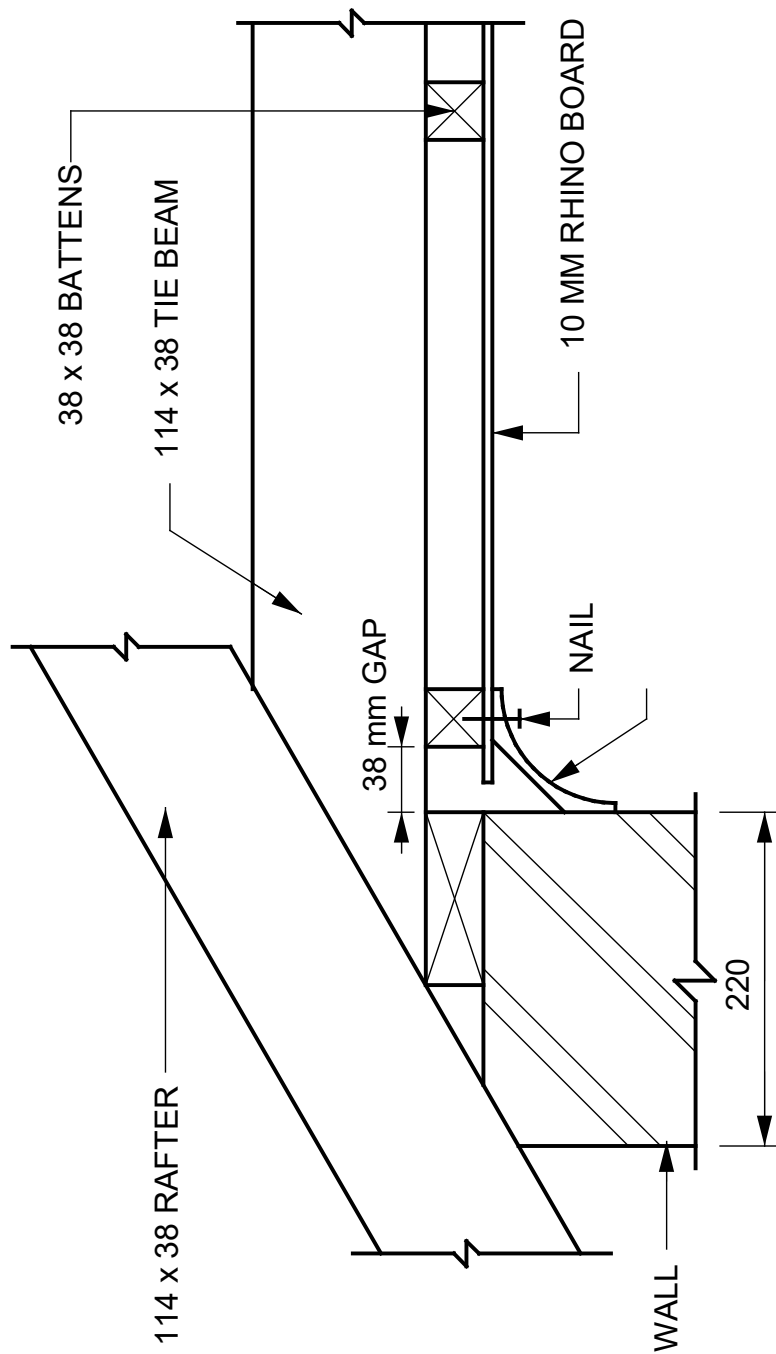
Part of drawing	Correct position	Correct shape	Hatching	Labels	Total
Sink, water closet, wash basin and bath	2	2			4
Sink, water closet, wash basin and bath waste pipes	2	2			4
Gulley and stack	2	2			4
Bath overflow	2	2			4
Title					1
Scale					1
Accuracy					1
Line work					1
Subtotal					20
Divide by					2
TOTAL:					10

SUMMARY QUESTION 7

Marking criteria	Possible mark	Marker	Internal moderator	External moderator
Correct position	8			
Correct shape	8			
Hatching				
Labels				
Title	1			
Scale	1			
Accuracy	1			
Line work	1			
Subtotal	20			
Divide by	2			
TOTAL:	10			

NB: If any part of the drawing is drawn in the incorrect position NO marks should be allocated for this part of the drawing.

[10]

QUESTION 8: PLASTER CEILINGS**METHOD OF FIXING RHINO BOARD CORNICE**

SCALE 1:5

RUBRIC FOR QUESTION 8

Part of drawing	Correct position	Correct shape	Hatching	Labels	Total
Tie beam	1	$\frac{1}{2}$	1	$\frac{1}{2}$	3
Battens	1	$\frac{1}{2}$	1	$\frac{1}{2}$	3
Cornice and ceiling board rim	1	$\frac{1}{2}$		$\frac{1}{2}$	2
Method of fixing	1	$\frac{1}{2}$		$\frac{1}{2}$	2
Title					$\frac{1}{2}$
Scale					$\frac{1}{2}$
Accuracy					$\frac{1}{2}$
Line work					$\frac{1}{2}$
Subtotal					12
Divide by					2
TOTAL:					6

SUMMARY QUESTION 8

Marking criteria	Possible mark	Marker	Internal moderator	External moderator
Correct position	4			
Correct shape	2			
Hatching	2			
Labels	2			
Title	$\frac{1}{2}$			
Scale	$\frac{1}{2}$			
Accuracy	$\frac{1}{2}$			
Line work	$\frac{1}{2}$			
Subtotal	12			
Divide by	2			
TOTAL:	6			

NB: If any part of the drawing is drawn in the incorrect position NO marks should be allocated for this part of the drawing.

[6]**TOTAL: 100**