higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

BUILDING AND STRUCTURAL CONSTRUCTION N4

9 APRIL 2018

This marking guideline consists of 14 pages.

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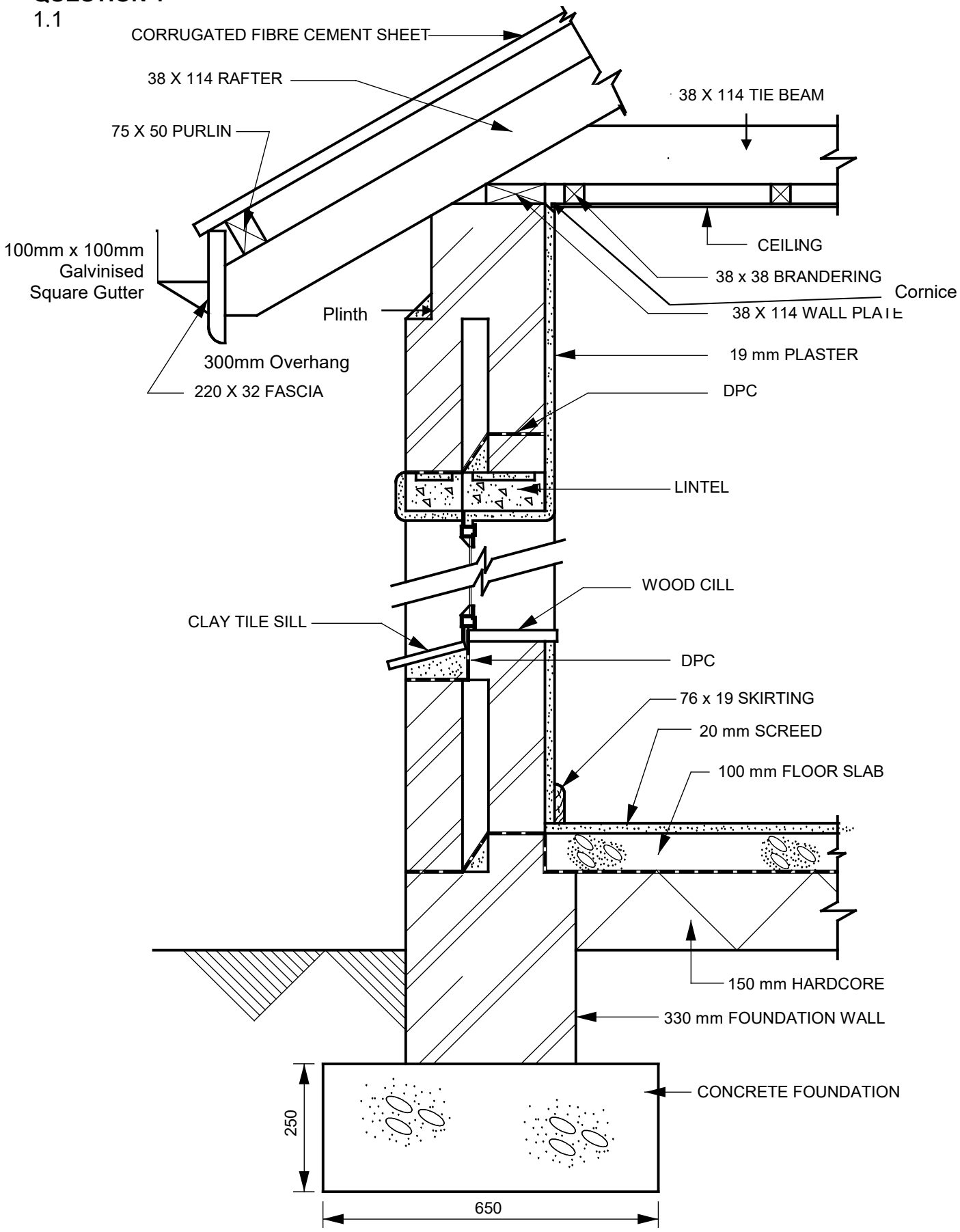
QUESTION 1

1.1



VERTICAL SECTION THROUGH EAVES, STEEL WINDOW AND FOUNDATION

SCALE 1:10

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SEE DRAWINGS FOR MODEL ANSWER

RUBRIC FOR DRAWING QUESTION 1: FOUNDATIONS AND CAVITY WALLS			
PART OF THE DRAWING	**MARKING CRITERIA**	**POSSIBLE MARK**	**REMARKS**
Concrete foundation, foundation wall, hard core and floor	Correct position	4	
	Hatching	4	
	Labelling	4	
Cavity wall, screed, skirting, mortar and plinth brick	Correct position	8	Wall × 1, DPC × 4
	Hatching	5	
	Labelling	7	
Vertical and horizontal DPC, ground	Correct position	5	
	Hatching	1	
	Labelling	5	
Lintel, plaster	Correct position	4	
	Hatching	4	
	Labelling	4	
Clay tile sill, wood sill, glass	Correct position	4	
	Hatching	4	
	Labelling	4	
Rafter, wall plate, tie beam, purlin, brandering, ceiling	Correct position	**8**	
	Hatching	**3**	
	Labelling	**7**	
	Line work	**5**	
	Accuracy	**5**	
	Neatness	**3**	
	Title	**1**	
	Scale	**1**	
	Subtotal	**100**	
	Divide by	**3,3**	
	TOTAL	**30**	

NOTE: NO marks should be allocated for any part of the drawing in the incorrect position except the marks allocated for the hatching of that component.

Marks should be allocated for neatness, correct title and scale even if the drawing is completely incorrect.

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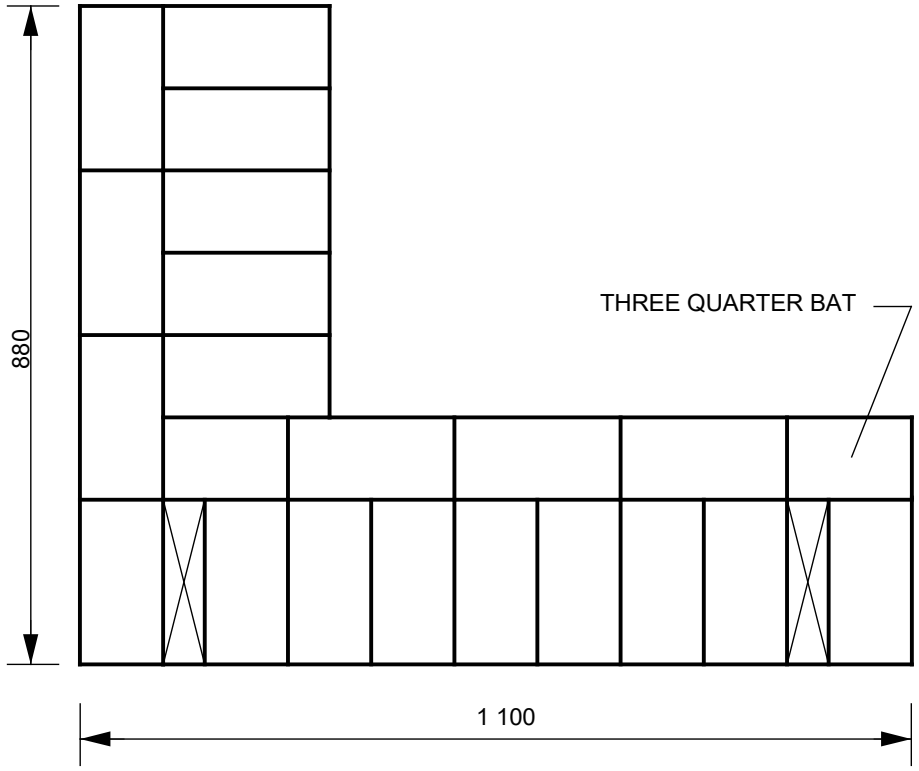
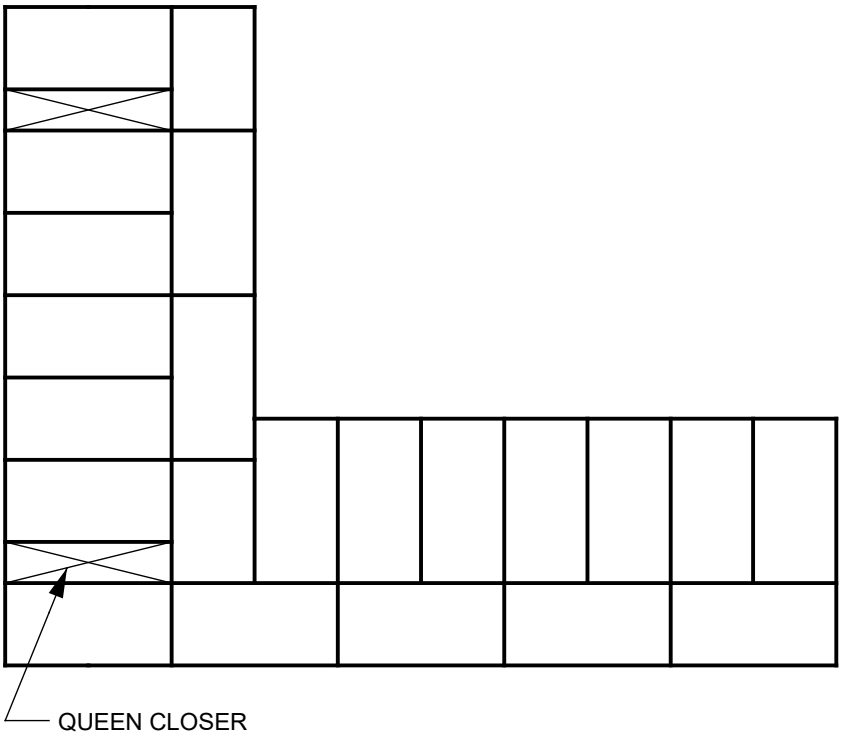
1.2
- It serves as a levelled base for walling.
- Overturning in soft soil is prevented.
- It provides a wider area over which the weight of the wall and its supporting parts can be spread.
- A linked frame is provided for the building to rest upon.
- An indirect support is provided for the floors (Any 5 × 1) (5)

[35]

QUESTION 2



COURSE B



COURSE A

ALTERNATE PLAN COURSE OF ONE-AND-HALF BRICK WALL CORNER BUILT IN ENGLISH BOND
SCALE 1 : 10

SEE DRAWINGS FOR MODEL ANSWER

RUBRIC FOR DRAWING QUESTION 2: BRICKWORK			
PART OF THE DRAWING	**MARKING CRITERIA**	**POSSIBLE MARK**	**REMARKS**
Course A	Correct position	1	Alternate plan of English bond
	Brick pattern	1	
	Brick size	1	
	Queen closure	2	
Course B	Correct position	1	Alternate plan of English bond
	Brick pattern	1	
	Brick size	1	
	Queen closure	2	
	Alignment of plan views	1	
	Labelling	4	
	Dimensions	2	
	Accuracy	5	
	Line work	4	
	Neatness	2	
	Title	1	
	Scale	1	
	Subtotal	30	
	Divide by	**3**	
	TOTAL	**10**	

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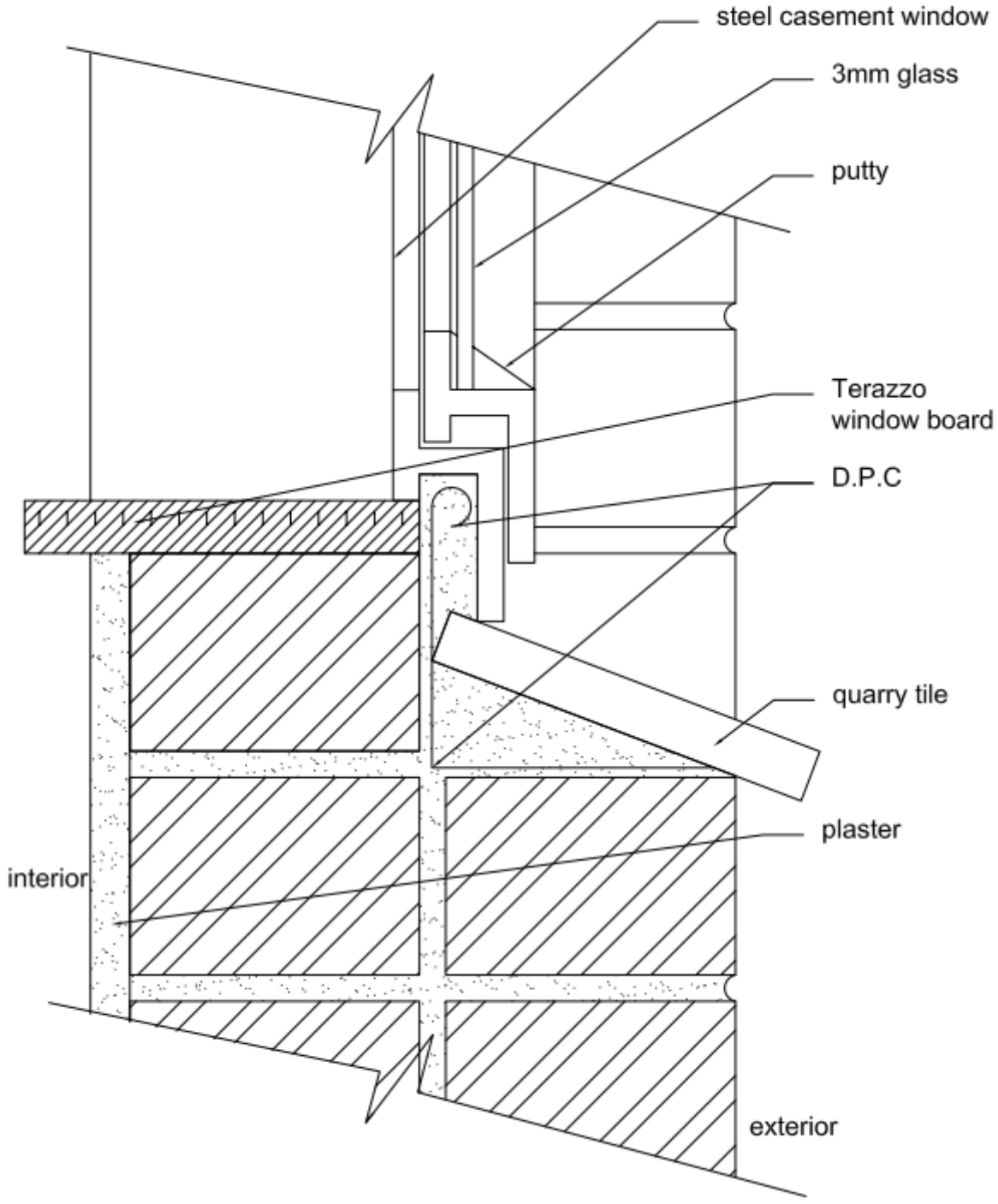
QUESTION 3



SECTION THORUGH CASEMENT WINDOW
SCALE 1 : 2

SEE DRAWINGS FOR MODEL ANSWER

RUBRIC FOR DRAWING QUESTION 3: STEEL CASEMENT WINDOW			
PART OF THE DRAWING	**MARKING CRITERIA**	**POSSIBLE MARK**	**REMARKS**
Steel casement window	Correct position	1	
	Correct shape	1	
	Labelling	1	
Terrazzo window board	Correct position	1	
	Correct shape	1	
	Labelling	1	
Quarry tile sill	Correct position	1	
	Correct shape	1	
	Labelling	1	
Plaster	Correct position	1	
	Hatching	1	
	Labelling	1	
Glass	Correct position	1	
	Correct shape	1	
	Labelling	1	
Putty	Correct position	**1**	
	Hatching	**1**	
	Labelling	**1**	
	Line work	**5**	
	Accuracy	**5**	
	Neatness	**3**	
	Title	**1**	
	Scale	**1**	
	Subtotal	**33**	
	Divide by	**3,3**	
	TOTAL	**10**	

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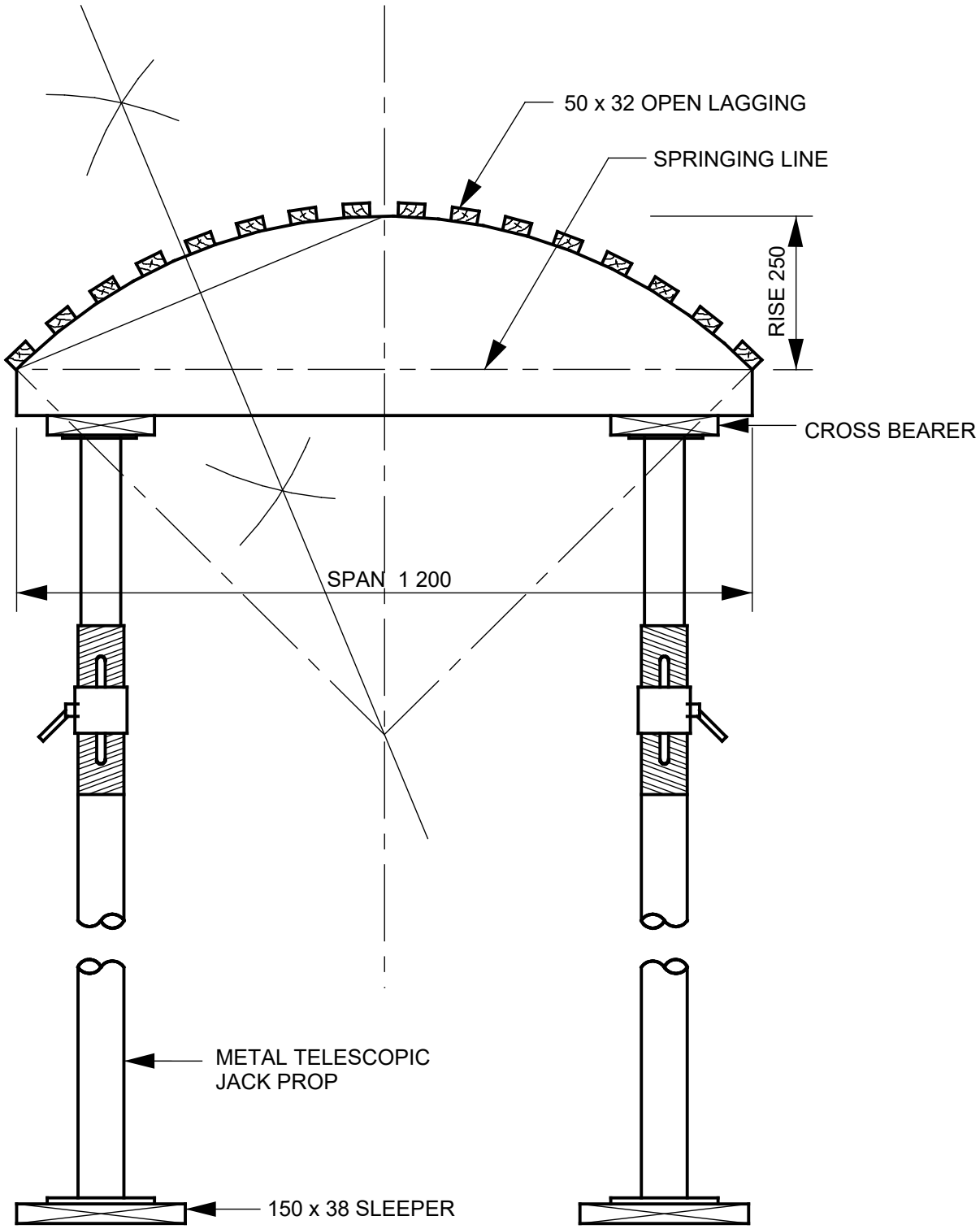
QUESTION 4



TEMPORARY SUPPORT
SCALE 1 : 10

SEE DRAWINGS FOR MODEL ANSWER

RUBRIC FOR DRAWING QUESTION 4: ARCH WORK

PART OF THE DRAWING	MARKING CRITERIA	POSSIBLE MARK	REMARKS
Temporary Support arch, metaltelescopic/ sleeper	Correct position	3	
	Correct shape	3	
	Labelling	1	
Cross bearer, open lagging, springing line	Correct position	3	
	Labelling	2	
Span	Correct position	1	
	Dimension	1	
	Labelling	**1**	
	Accuracy	**4**	
	Line work	**4**	
	Construction Lines	**2**	
	Neatness	**3**	
	Title	**1**	
	Scale	**1**	
	Subtotal	**30**	
	Divide by	**2**	
	TOTAL	**15**	

NOTE: NO marks should be allocated for any part of the drawing in the incorrect position except the marks allocated for the hatching of that component.

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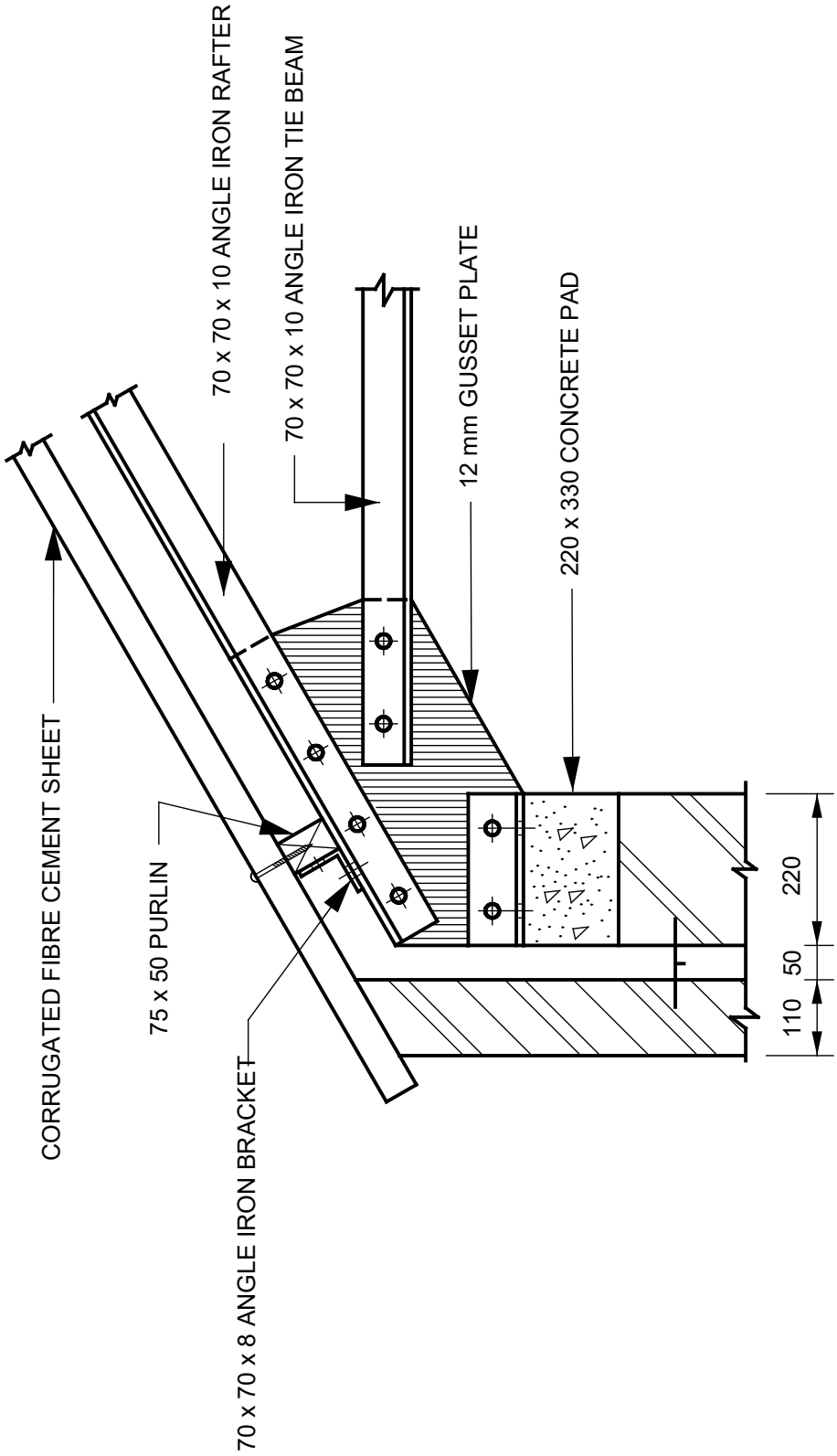
QUESTION 5



VERTICAL SECTION THROUGH FOOT OF THE ROOF

SCALE 1:10

SEE DRAWINGS FOR MODEL ANSWER

RUBRIC FOR DRAWING QUESTION 5: ROOF

PART OF THE DRAWING	MARKING CRITERIA	POSSIBLE MARK	REMARKS
Wall	Correct position	2	
	Hatching	1	
Rafter, foot of the roof, purlin,	Correct position	3	
	Correct size	2	
	Labelling	2	
	Hatching	1	
Gusset plate, angle iron bracket	**Correct position**	**2**	
	Hatching	**1**	
Roof sheeting	**Correct position**	**2**	
	Hatching	**1**	
	Line work	**2**	
	Accuracy	**3**	
	Title	**1**	
	Scale	**1**	
	Subtotal	**24**	
	Divide by	**2.4**	
	TOTAL	**10**	

NOTE: NO marks should be allocated for any part of the drawing in the incorrect position except the marks allocated for the hatching of that component.

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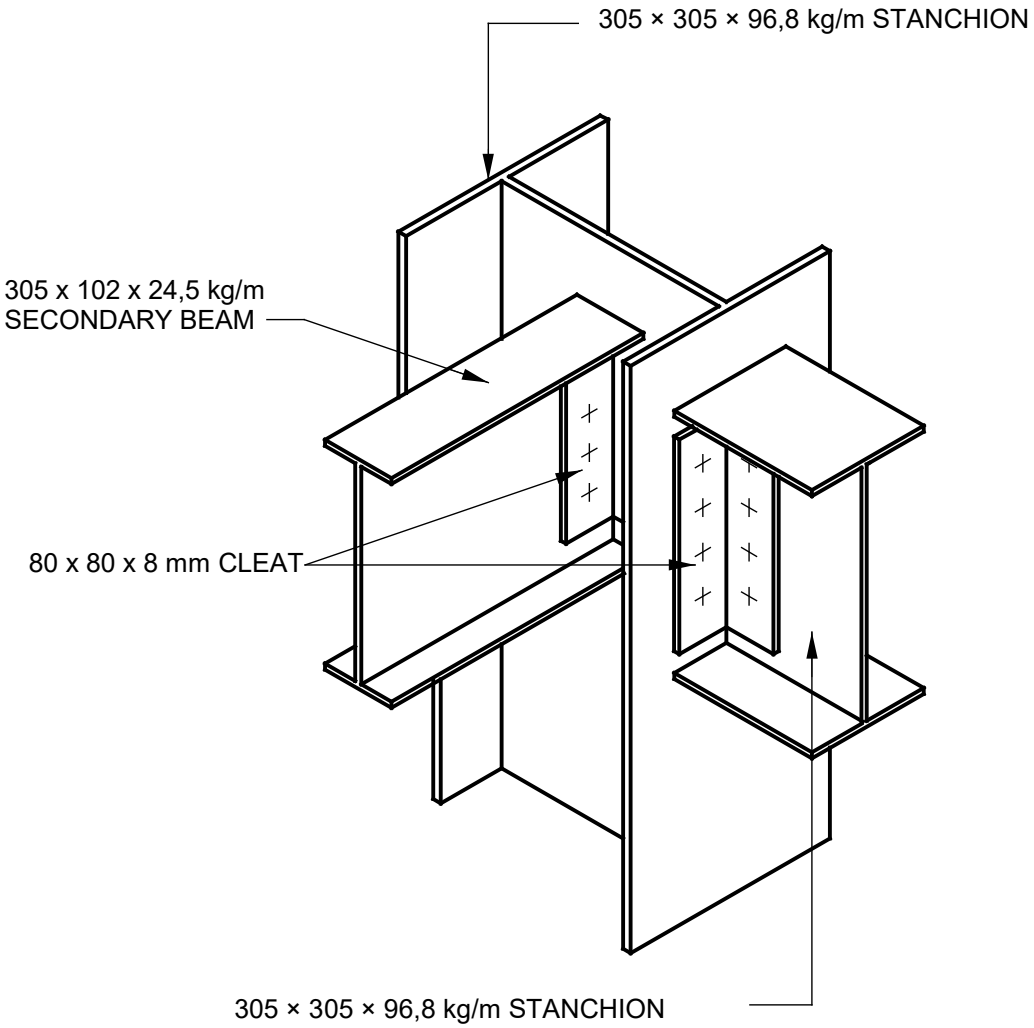
QUESTION 6



ISOMETRIC VIEW OF A STANCHION AND BEAMS CONNECTION
SCALE 1 : 5

SEE DRAWINGS FOR MODEL ANSWER

RUBRIC FOR DRAWING QUESTION 6: STRUCTURAL STEEL			
PART OF THE DRAWING	**MARKING CRITERIA**	**POSSIBLE MARK**	**REMARKS**
Stanchion	Correct position	3	
	Correct size	2	
	Labelling	2	
Main beam, secondary beam	Correct position	3	
	Correct size	2	
	Labelling	2	
Cleat	Correct position	2	
	Correct size	2	
	Labelling	2	
	Accuracy	4	
	Line work	4	
	Neatness	2	
	Title	1	
	Scale	1	
	Subtotal	32	
	Divided	1.6	
	TOTAL	20	

NOTE: NO marks should be allocated for any part of the drawing in the incorrect position except the marks allocated for the hatching of that component.

Marks should be allocated for neatness, correct title and scale even if the drawing is completely incorrect.

TOTAL: 100

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