



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

CIVIL TECHNOLOGY: WOODWORKING

EXEMPLAR 2018

MARKING GUIDELINES

MARKS: 200

This marking guideline consists of 15 pages.

QUESTION 1: OHS, MATERIALS, TOOLS, EQUIPMENT AND JOINING (GENERIC)

- 1.1 1.1.1 H ✓ (1)
- 1.1.2 A ✓ (1)
- 1.1.3 E ✓ (1)
- 1.1.4 C ✓ (1)
- 1.1.5 D ✓ (1)
- 1.1.6 J ✓ (1)
- 1.1.7 I ✓ (1)
- 1.1.8 G ✓ (1)
- 1.1.9 B ✓ (1)
- 1.1.10 F ✓ (1)
- 1.2 1.2.1 A – Laser level ✓
B – Measuring staff ✓
C – Tripod ✓ (3)
- 1.2.2
- Place the laser level in its case after use. ✓
 - Do not bump the instrument against objects or drop it.
 - Never open the housing or attempt to disassemble the instrument.
 - Never store the laser level in hot or extremely cold areas. (1)
- ANY ONE OF THE ABOVE OR ANY OTHER ACCEPTABLE ANSWER**
- 1.3 1.3.1
- Do not throw any tools or materials from a scaffold. ✓
 - Never jump on a scaffold. ✓
 - Never overload a scaffold.
 - Remove or cover sharp edges or corners
 - Always attach free-standing scaffoldings to a building
 - Never jump on and off a scaffold.
 - Use a ladder to get on and off a scaffold. (2)
- ANY TWO OF THE ABOVE OR ANY OTHER ACCEPTABLE ANSWERS**
- 1.3.2
- It prevents workers from falling off the scaffold. ✓
 - To prevent materials from falling off the scaffold.
 - It is used as a hand rail.
 - It is used to strap on safety harnesses. (1)
- ANY ONE OF THE ABOVE OR ANY OTHER ACCEPTABLE ANSWER**

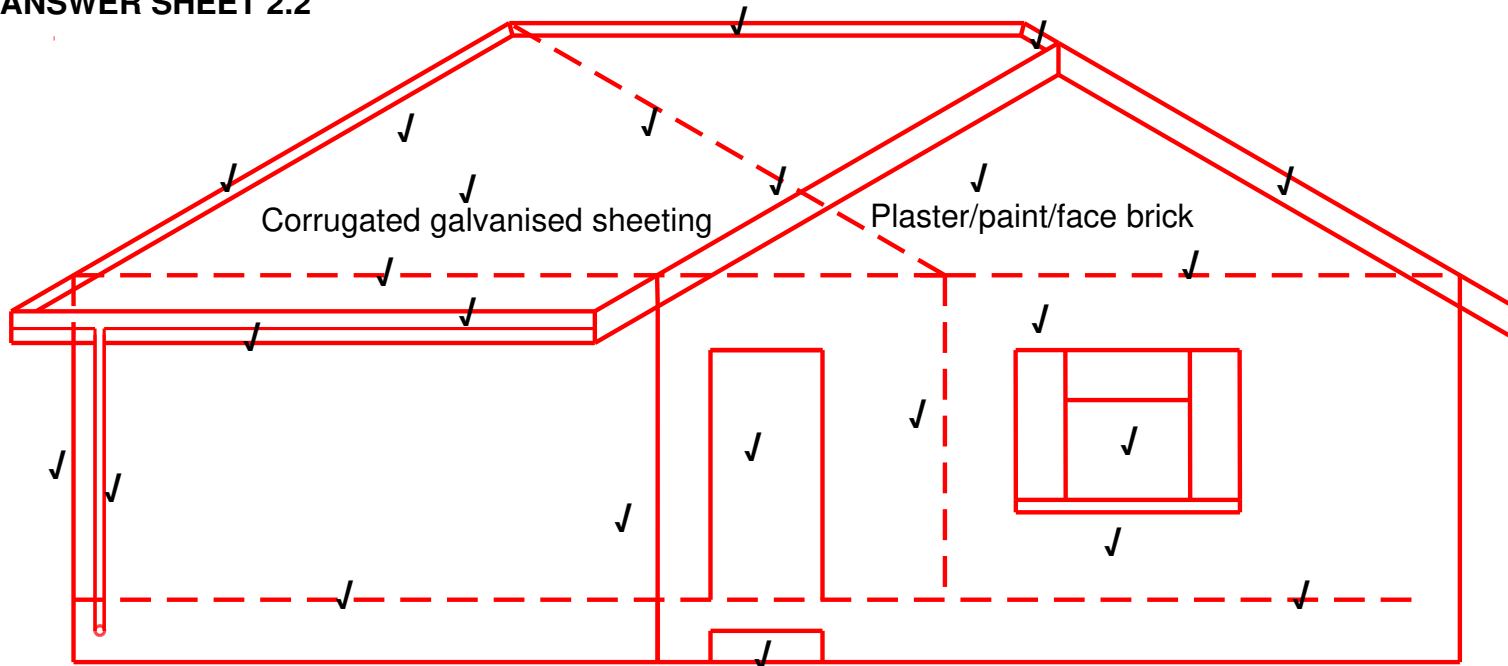
- 1.3.3
- The toe board will prevent tools from sliding of the scaffold. ✓
 - The toe board will prevent workmen from stepping off the scaffold.
- ANY ONE OF THE ABOVE OR ANY OTHER ACCEPTABLE ANSWER**
- (1)
- 1.3.4
- Vertical standards can sink into the ground. ✓
 - The scaffold may rock to and fro.
- ANY ONE OF THE ABOVE OR ANY OTHER ACCEPTABLE ANSWER**
- (1)
- 1.4 Bolts and nuts
- (1)
[20]

QUESTION 2: GRAPHICS AS METHOD OF COMMUNICATION (GENERIC)

NO.	QUESTIONS	ANSWERS	MARKS
1	Identify FIGURE A.	Floor plan of ground floor	1
2	Identify FIGURE B.	Floor plan of first floor	1
3	Identify FIGURE D.	Site plan	1
4	What do the short dashed lines in FIGURE B indicate?	The roof line of the building	1
5	What type of roof is used on this building?	Gable roof	1
6	Name the scale that was used to draw FIGURE B.	1 : 100	1
7	Name the scale that was used to draw FIGURE D	1 : 500	1
8	On what side of the building is the bathrooms situated?	South side	1
9	What is indicated by number 1?	Proposed building	1
10	What is indicated by number 2?	Gully	1
11	What is indicated by number 3?	Existing building	1
12	What is indicated by number 4?	North direction	1
13	What is indicated by number 5?	Gable wall	1
14	What is indicated by number 6?	Finished floor level of ground floor	1
15	What is indicated by number 7?	One-way switch double pole	1
		TOTAL	15

2.2 GRAPHICS AND COMMUNICATION (GENERIC)

ANSWER SHEET 2.2



Application of scale ✓ ✓ ✓

NOT TO SCALE: USE A MASK TO MARK THIS QUESTION

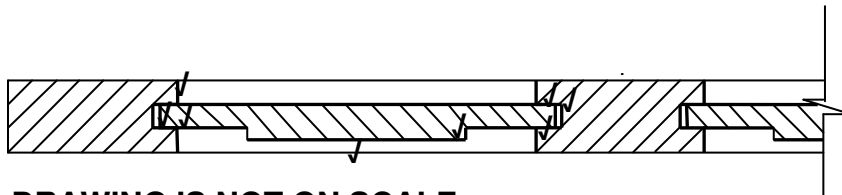
ASSESSMENT CRITERIA	MARKS	LM
External Walls	3	
NGL (correctly indicated)	1	
FFL (correctly indicated)	1	
Window	1	
Window sill	1	
Door opening	1	
Step	1	
Fascia board	1	
Barge board	2	
Roof (correctly drawn)	3	
Gutter	1	
Rain-water down pipe	1	
Ridge capping	1	
Determining roof height	2	
Any two labels	2	
Application of scale One or two incorrect = 3 Three or four incorrect = 2 More than five incorrect = 1 No measurement correct = 0	3	
TOTAL	25	

[40]

QUESTION 3: CASEMENTS, DOORS, WALLPANELLING AND CUPBOARDS (SPECIFIC)

- 3.1 3.1.1 A transom is a horizontal member ✓ that separates ✓ the casement ✓ and fanlight ✓ (4)
- 3.1.2 A glazing bar separate the window panes ✓
A glazing bar provides a rebate into which window panes are fitted. (1)
- 3.2 3.2.1 Fanlights improve the appearance ✓ of casements and can open separately for ventilation. (1)
- ANY ONE OF THE ABOVE**
- 3.2.2 A Mullion ✓
B Frame stile ✓
C Putty or glazing beads ✓
D Window pane/glass ✓
E Sill ✓ (5)
- 3.2.3 Horn – The wall must be built around the horn to secure the frame into the wall. ✓ (1)
- 3.2.4 Router ✓ (1)
- 3.2.5 Hinge ✓ (1)

3.3

**DRAWING IS NOT ON SCALE**

ASSESSMENT CRITERIA	MARK	CANDIDATE'S MARK
Tongue	3	
Groove	3	
Raised panel	2	
TOTAL	8	

(8)

- 3.4 A Wall ✓
B Capping ✓
C Tong-and-groove board ✓

D Horizontal rough grounds ✓

E Skirting ✓

(5)

3.5 Built-in cupboards are fixed ✓ to walls and free standing cupboards can be moved around the room. ✓

(2)

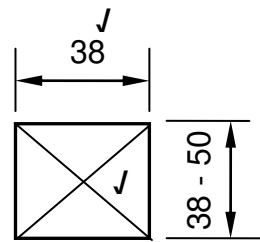
3.6 An oval rail does not bend easily with the load of clothes. ✓

(1)

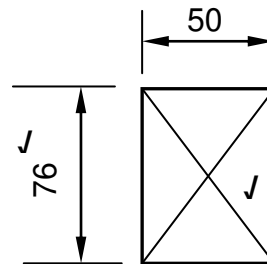
[30]

QUESTION 4: ROOFS AND CEILINGS (SPECIFIC)

4.1



BATTEN

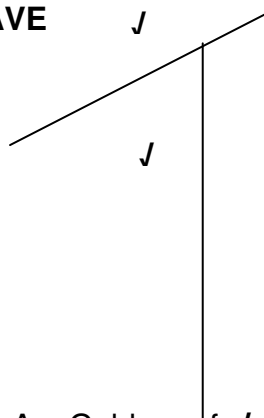


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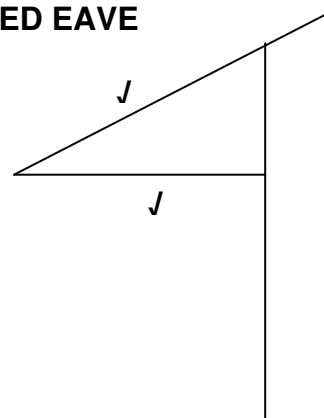
(4)

4.2

OPEN EAVE



CLOSED EAVE



(4)

4.3

4.3.1

- A – Gable roof ✓
- B – Hipped roof ✓

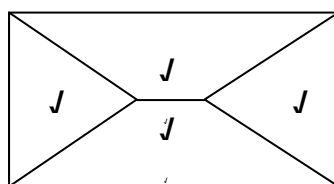
(2)

4.3.2

More roofing material will be required. ✓
It is more labour intensive

(1)

4.3.3



(4)

4.3.4

- The roof truss must be sturdy enough to carry the roof covering safely. ✓
- The roof truss must be able to withstand wind and other forces that act on them.
- The roof truss must provide adequate height in any room immediately below the roof and ceiling assembly.
- The roof truss should not allow the accumulation of rainwater upon the roof surface.
- The roof truss must be neat and solid to enhance the appearance of the building.

(1)

ANY ONE OF THE ABOVE OR ANY OTHER ACCEPTABLE ANSWER

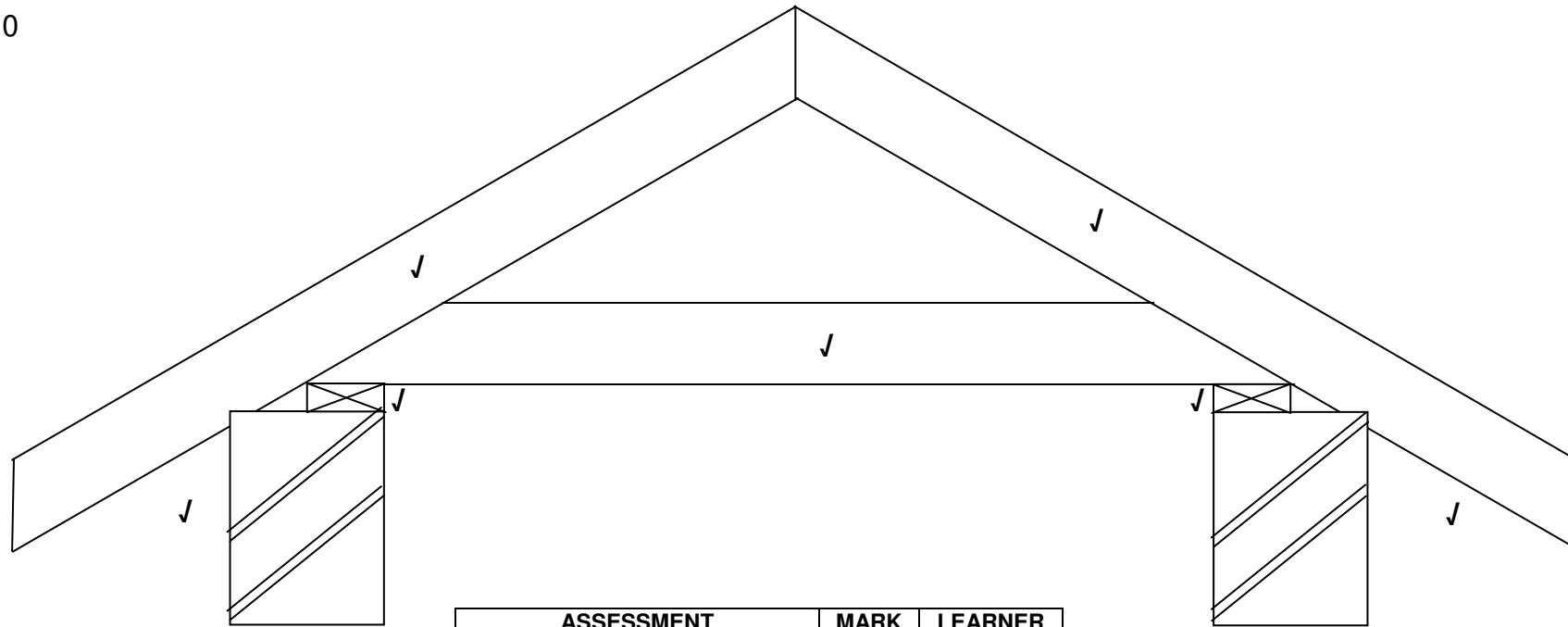
- 4.4 Different types of reed and grass. ✓
Cape thatching reed ✓
Red grass found in the Bushveld and Lowveld (2)
ANY TWO OF THE ABOVE
- 4.5 4.5.1 Truss hangers are used to fix trusses to a wall. ✓ (1)
- 4.5.2 Storm clips prevent the tiles from lifting off the roof on very windy days. ✓ (1)
- 4.6 The trap door allows access into the roof area. ✓ (1)
- 4.7 Push up gypsum-board trapdoor ✓
Hinged trapdoor
ANY ONE OF THE ABOVE (1)
- 4.8 450 mm ✓ (1)

4.9

A	B	C	D
			Length to be covered by tiles
			Length of roof is 9 700 mm
			Width of roof is 3 650 mm
			Area of roof to be tiled x = 35,405 m ²
1/	<u>9,7</u> ✓		Length of roof <u>9,7 m</u>
	<u>3,65</u> ✓	<u>35,41</u> m ² ✓	Width of roof <u>3.65 m</u>
			= <u>35,41</u> m ² roof covering needed
			Number of roof tiles required is
			<u>Area of roof</u> Area of tile ✓
			= <u>35,41</u> <u>0,123</u> ✓
			= <u>287,89</u> number of roof tiles needed
			or = <u>288 roof tiles</u> ✓

(7)

4.10



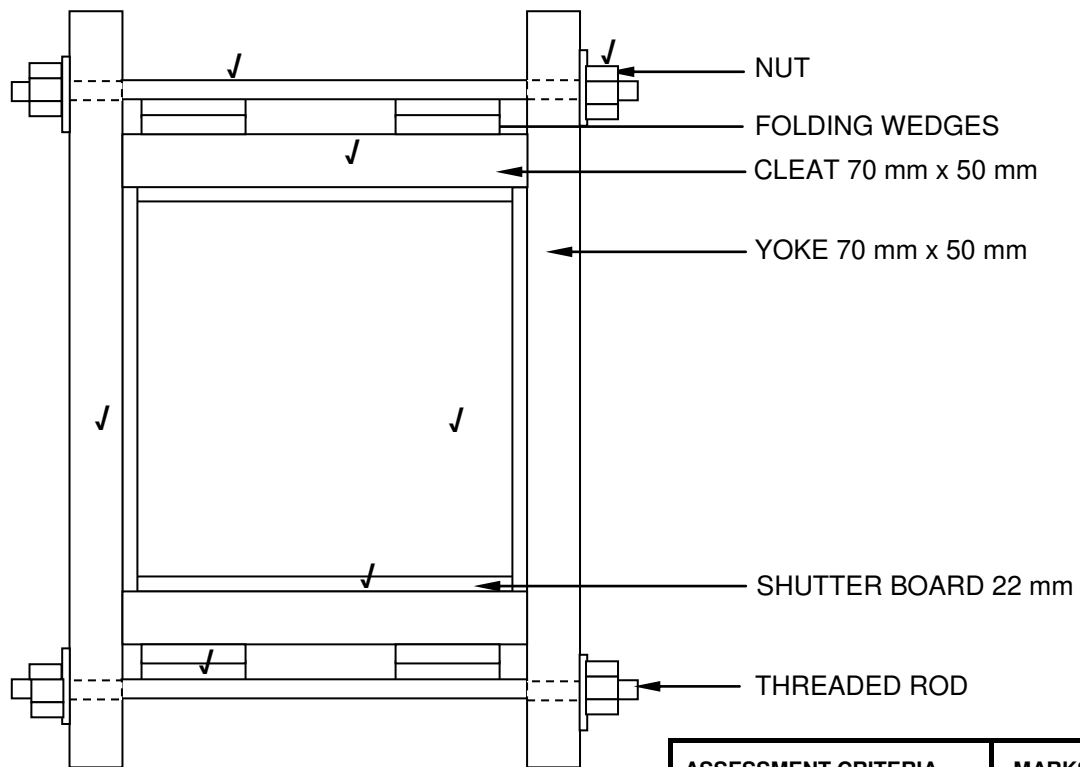
ASSESSMENT CRITERIA	MARK	LEARNER MARK
Wall plate	2	
Tie beam	1	
Rafters	2	
Eaves	2	
Application of scale		
One or two incorrect = 3	3	
Three or four incorrect = 2		
More than five incorrect = 1		
No measurement correct = 0		
TOTAL	10	

[40]

**QUESTION 5: CENTERING, FORMWORK, SHORING AND IRONMONGERY
(SPECIFIC)**

- 5.1 To make sure the profile of the template is correct before they are copied to solid timber and ribs ✓
Avoid wastage if mistakes are made ✓
It is easier to set out the profile of the ribs on the floor than when it is in-situ. (2)
ANY TWO OF THE ABOVE
- 5.2 5.2.1 Folding wedges are inserted at the ends of a prop ✓, under bearers ✓ and on top of the props. ✓ (3)
5.2.2 The use of the wedges are to lower ✓ or raise ✓ the centre (2)
5.2.3 Table saw ✓
Band saw ✓
Jig saw
Portable circular saw
Circular saw
ANY TWO OF THE ABOVE (2)
- 5.3 A Space between laggings ✓
B Laggings ✓
C Ribs ✓
D Bearer ✓ (4)
- 5.4 5.4.1 Mortise lock ✓ (1)
5.4.2 Lock rail ✓
Low lock rail
Stile of door (1)
ANY ONE OF THE ABOVE
- 5.4.3 Ledge batten door/Ledge braced batten door ✓ (1)
5.4.4 Striker plate. ✓ (1)
- 5.5 Plastic ✓
Metal sheeting ✓
Hardboard ✓
Fibreglass
Perspex (3)
ANY THREE OF THE ABOVE

5.6



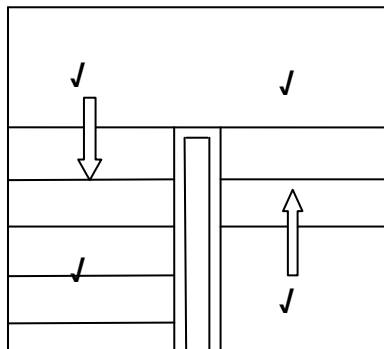
ASSESSMENT CRITERIA	MARKS	LM
Column	1	
Shutter board	1	
Yokes	1	
Cleats	1	
Wedges	1	
Threaded bolts	1	
Nuts	1	
Application of scale		
One or two incorrect = 3		
Three or four incorrect = 2		
More than five incorrect = 1		
No measurement correct = 0	3	
TOTAL	10	

[30]

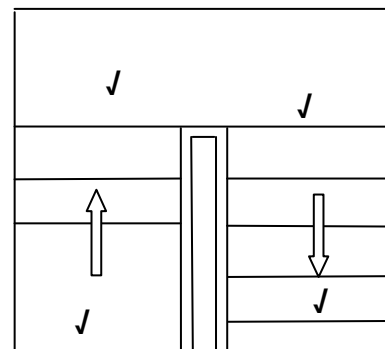
QUESTION 6: SUSPENDED FLOORS AND STAIRCASES (SPECIFIC)

- 6.1 6.1.1 C ✓
 6.1.2 C ✓
 6.1.3 A ✓
 6.1.4 B ✓
 6.1.5 D ✓ (5)
- 6.2 Handrails will assist people when they ascend or descend stairs. ✓
 Balustrades are fixed onto the handrails to form a safe structure. ✓ (2)
- 6.3 Landings are platforms that afford people a place to rest when they ascend or
 descend stairs. ✓
 Landings provide an opportunity to change direction in a flight of stairs. ✓ (2)
- 6.4 In line strutting are placed in a straight line between floor joists. ✓
 In Staggered strutting every alternate struts will be in line with each other. ✓ (2)
- 6.5 Dust and dirt will build up in the gap between the floor board and wall. ✓ (1)

6.6



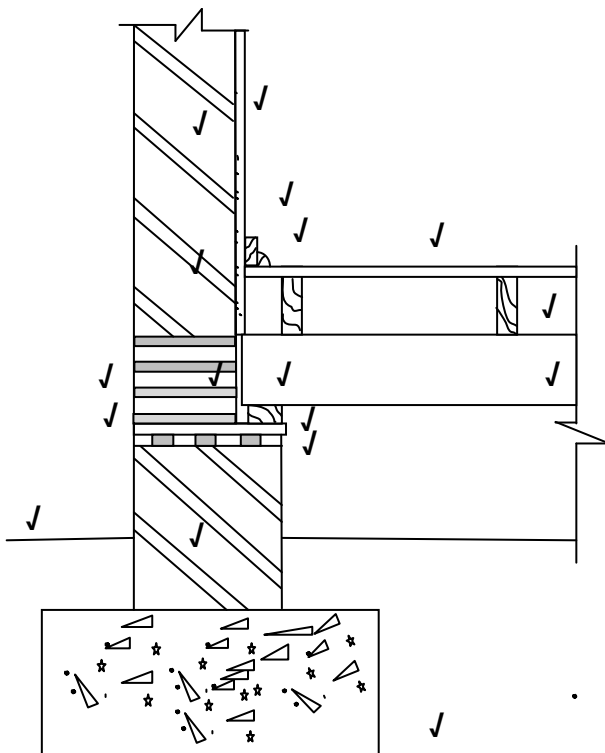
LEFT-SIDED STAIRCASE



RIGHT-SIDED STAIRCASE

(8)

6.7



**DRAWING NOT TO SCALE
USE A MASK TO MARK THIS QUESTION**

ASSESSMENT CRITERIA	MARKS	LM
Foundation	1	
NGL	1	
Bearer	1	
Ant guard	1	
DPC	1	
Floorboards	1	
Floor joists	1	
Quadrant	1	
Skirting	1	
Plaster	1	
Wall superstructure	1	
Wall plate	1	
Airbrick	1	
Foundation wall	1	
Hatching wall	1	
Any TWO labels	2	
Application of scale		
One or two incorrect = 3		
Three or four incorrect = 2		
More than five incorrect = 1		
No measurement correct = 0	3	
TOTAL	20	

[40]