



**higher education
& training**

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

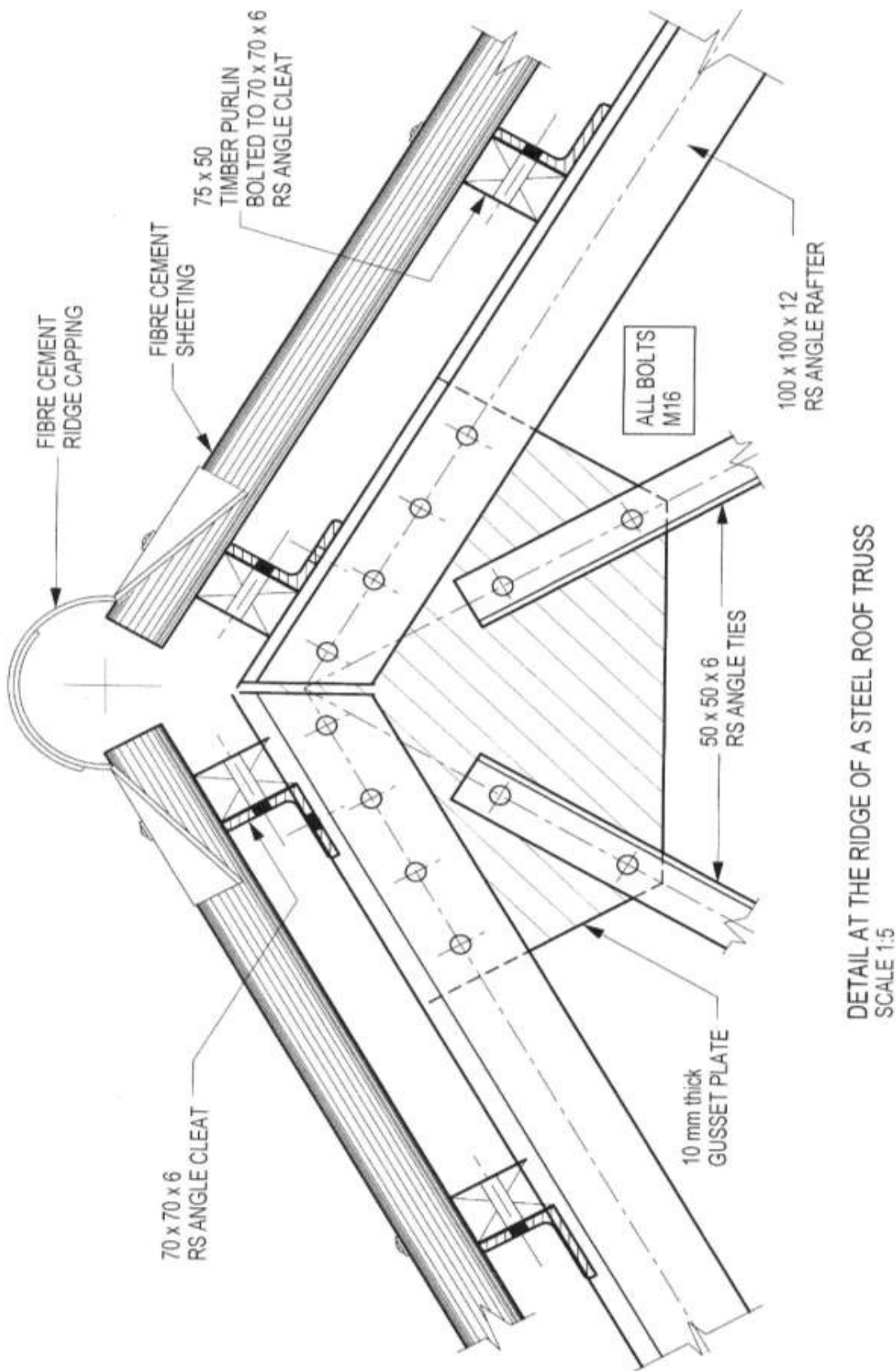
NATIONAL CERTIFICATE

BUILDING AND STRUCTURAL CONSTRUCTION N4

25 November 2022

This marking guideline consists of 8 pages.

QUESTION 1

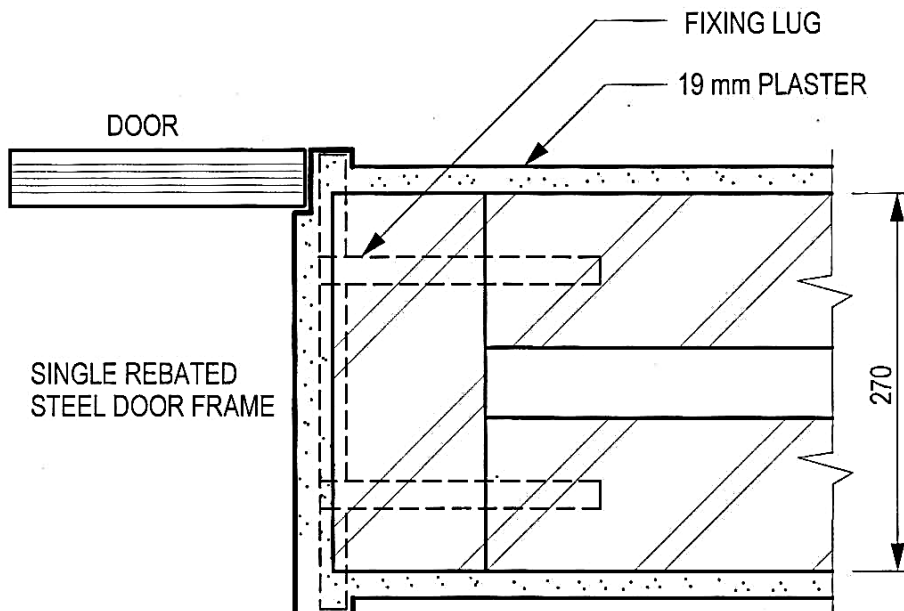


QUESTION 1		
MARK ALLOCATION		
Correctness:		10
Angle cleat	1	
Gusset plate	2	
Ridge capping	1	
Angle rafter	1	
Cement sheeting	1	
Bolted timber purlins	2	
Angle ties	2	
Accuracy		4
Title and scale		1
Labels		5
Total		20

[20]

QUESTION 2

2 (A VERTICAL SECTION MUST NOT BE ACCEPTED)

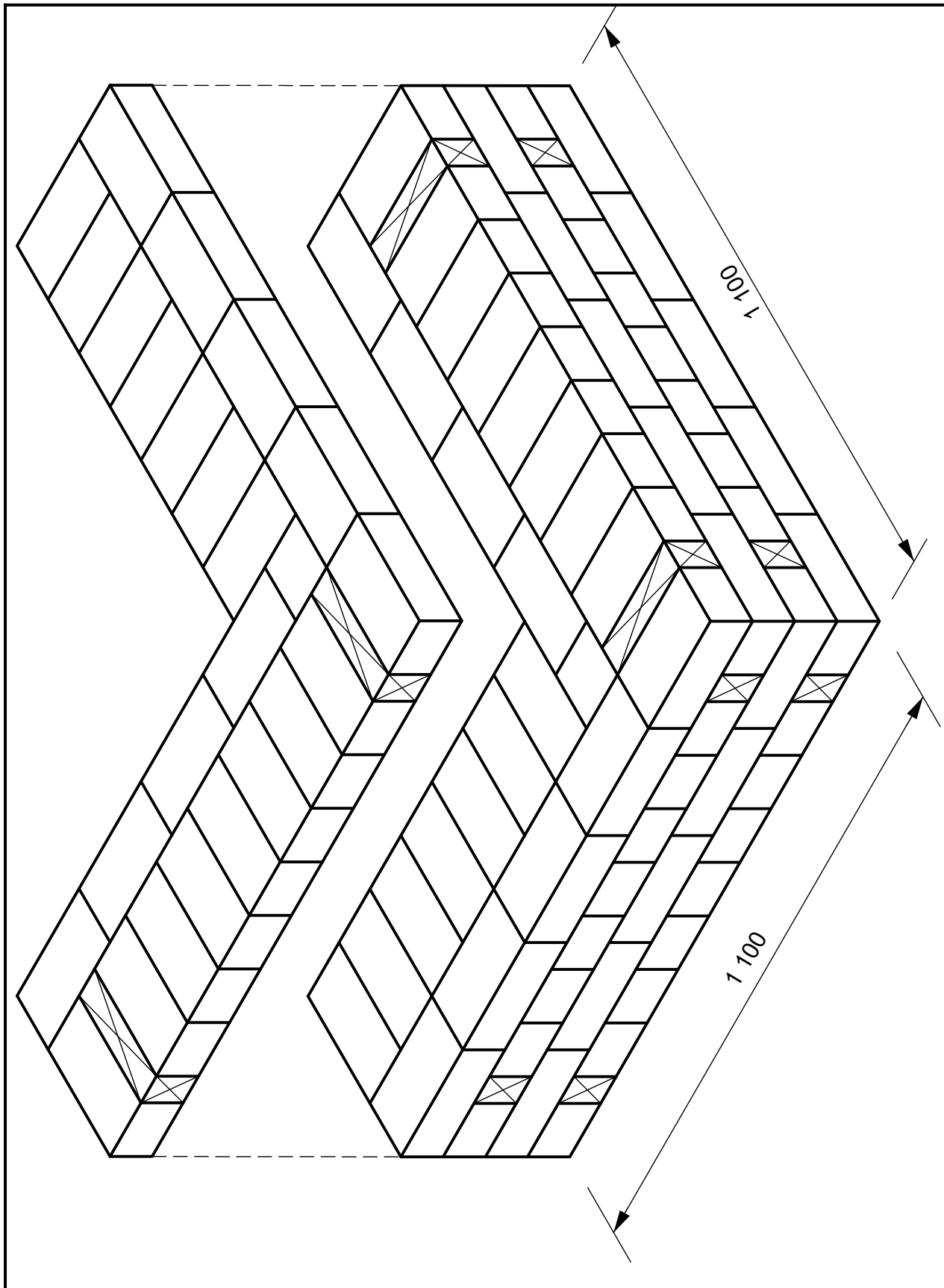


HORIZONTAL SECTION THROUGH A CAVITY WALL
WITH A STEEL DOOR FRAME SCALE 1:5

QUESTION 2		
MARK ALLOCATION		
Correctness:		6
Cavity wall corr	1	
Steel frame corr	3	
Door in Place	1	
Fixing lug	1	
Accuracy	2	
Dimension	1	
Labels	1	
Total	10	

[10]

QUESTION 3

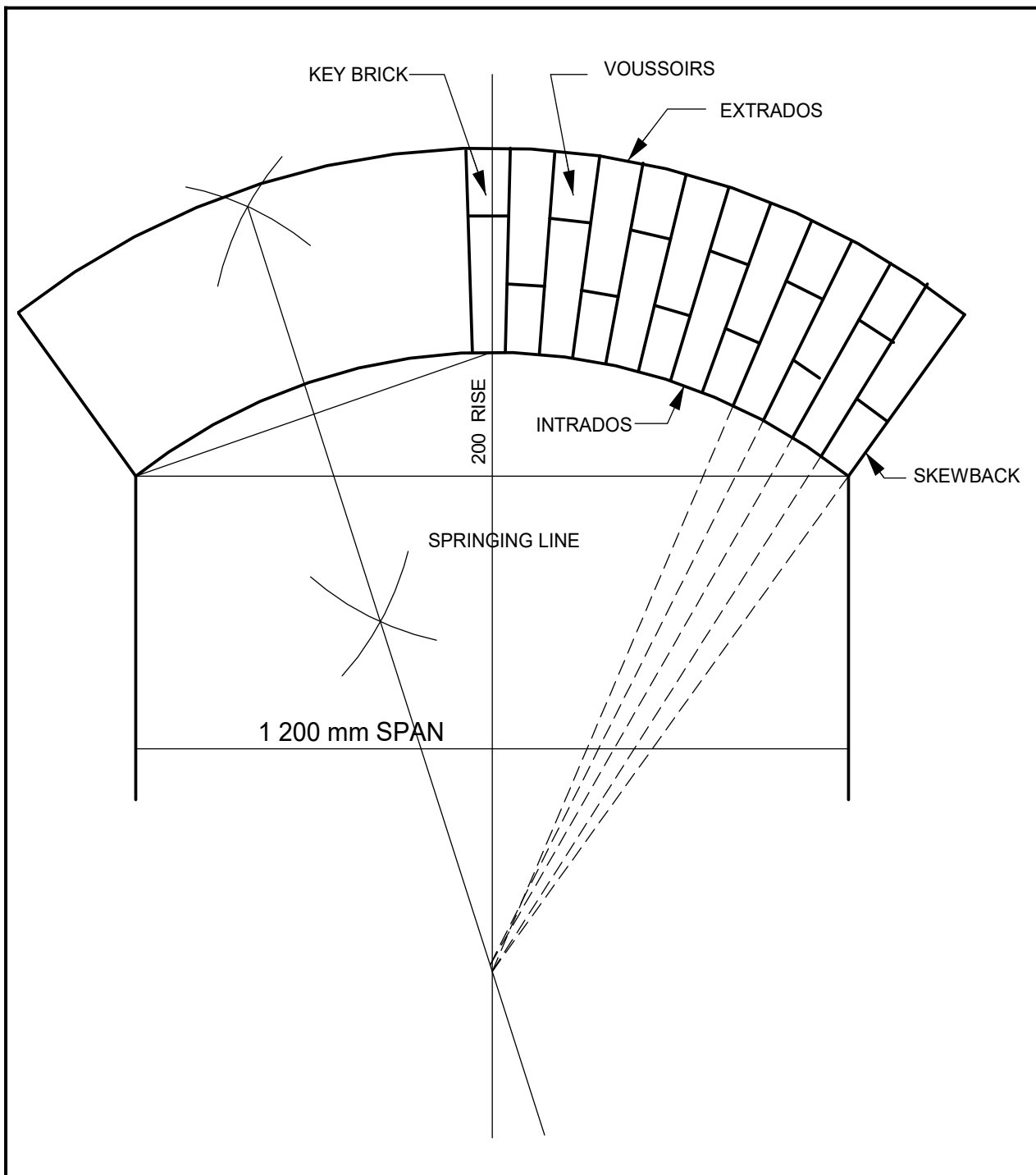


[15]

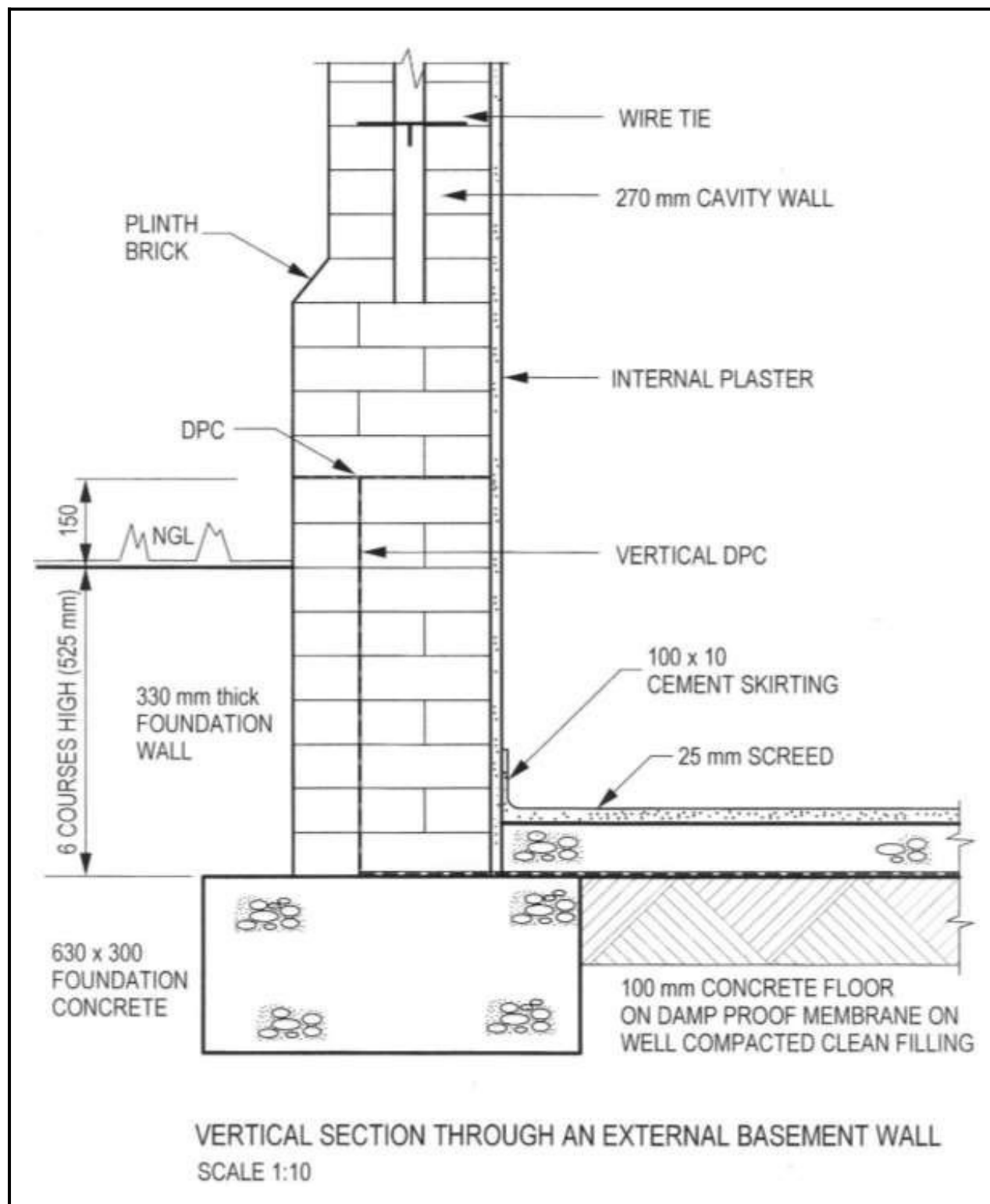
QUESTION 4

- 4.1
- Provide a minimum depth of 150 mm between the floor and ground.
 - Use precast, reinforced concrete beams to build a suspended concrete floor.
 - Lay the beams in rows in a similar way to traditional timber joists, and put ends of the beam rest on the inner leaf of main walls over DPC.
 - The inverted T-profile of the beam is designed to accommodate the concrete slabs.
 - Lay hollow core floor slabs on the beams. (10)
- 4.2
- Construction is faster because no surface preparation and formwork are required.
 - No curing period is required as slabs can be used straight away.
 - The suspended floor can be laid in bad weather.
 - Once the slabs are in position and grouted, they provide immediate working platforms.
 - The installations are faster and more efficient. (10)
- [20]**

QUESTION 5

**[15]**

QUESTION 6



[20]

QUESTION 6		
MARK ALLOCATION		
Correctness:		10
Conc. fnd.	1	
Heights corr.	2	
Walls corr.	2	
Conc. floor	2	
DPC	2	
Ground level	1	
Accuracy		4
Dimensions		2
Labels		4
Total		20

QUESTION 5		
MARK ALLOCATION		
Correctness:		9
Brick wall width corr.	1	
Window sections corr.	2	
Glazing bar	1	
Glass & putty	1	
Window sills	1	
Fixing lug	1	
DPC	1	
Tie wire	1	
Accuracy		2
Plaster		1
Labels		3
Total		15

QUESTION 3		
MARK ALLOCATION		
Wall width corr.	2	
Corr. bonding and line work	3	
Stopped ends	3	
Isometric view	2	
Dimensions	2	
Line work	1	
Accuracy	2	
Total	15	

TOTAL: 100