



# basic education

Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

## NATIONAL SENIOR CERTIFICATE

**GRADE 12**

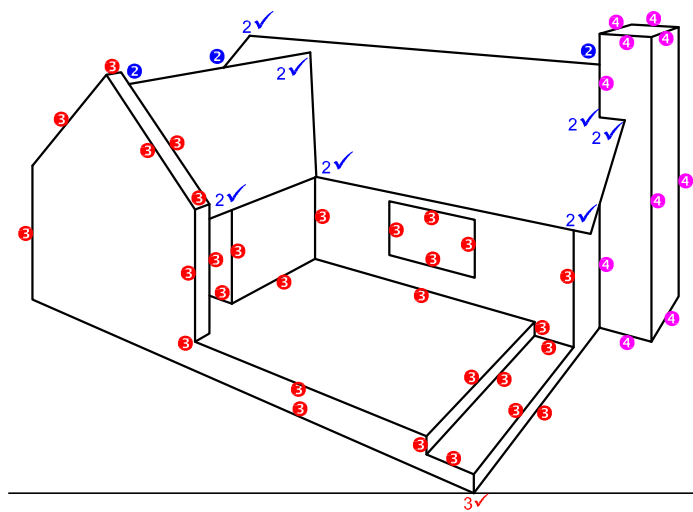
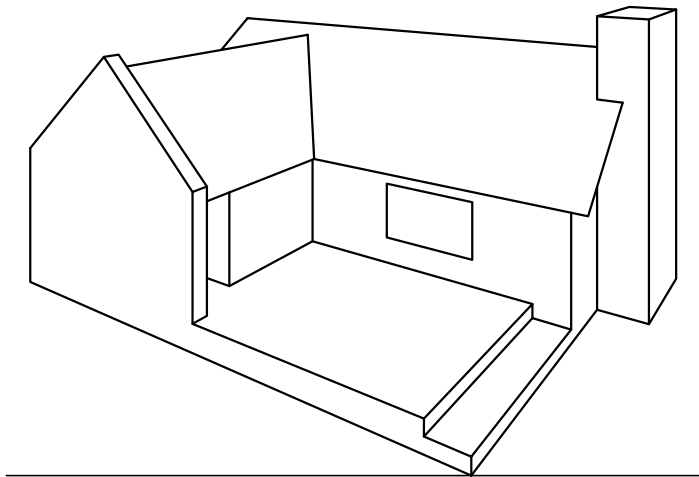
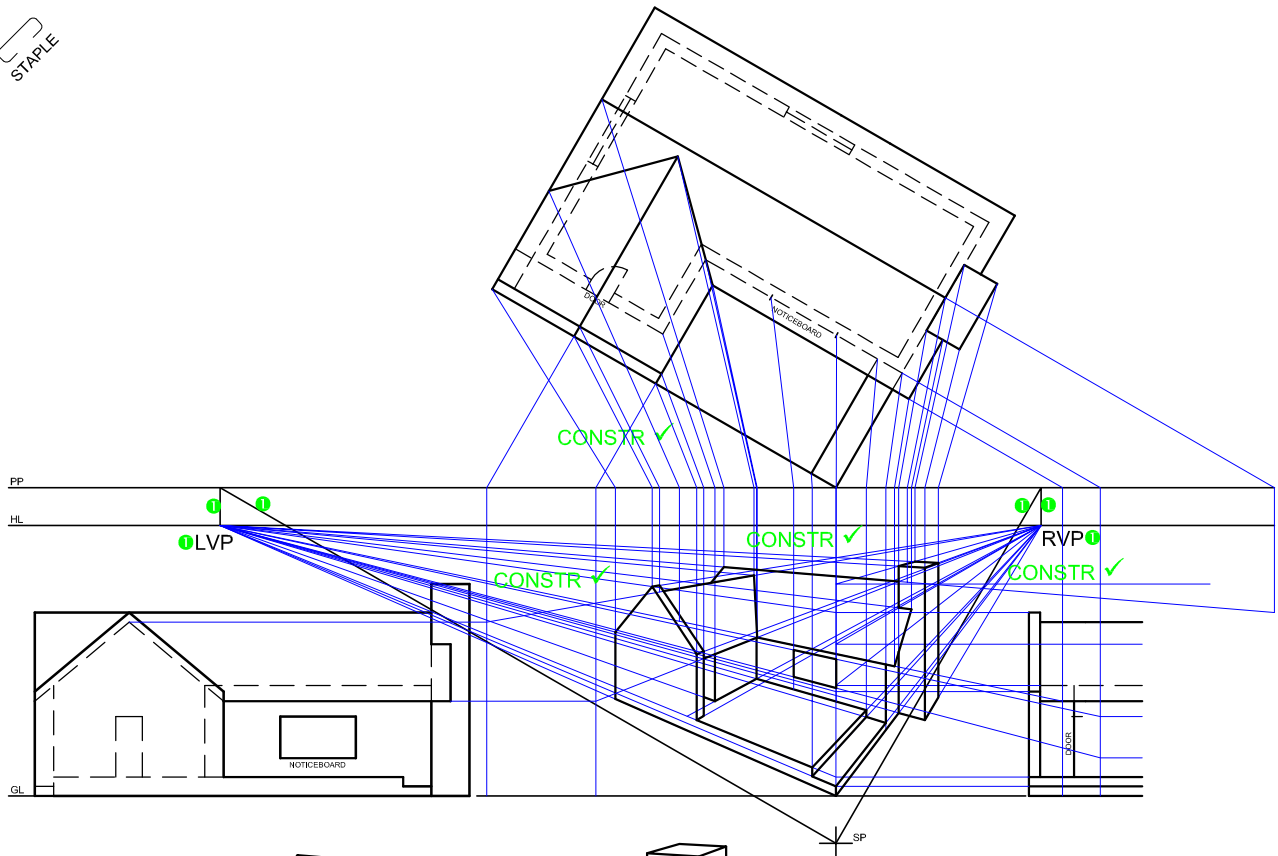
**ENGINEERING GRAPHICS AND DESIGN P1**

**NOVEMBER 2010**

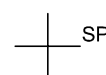
**MEMORANDUM**

**MARKS: 100**

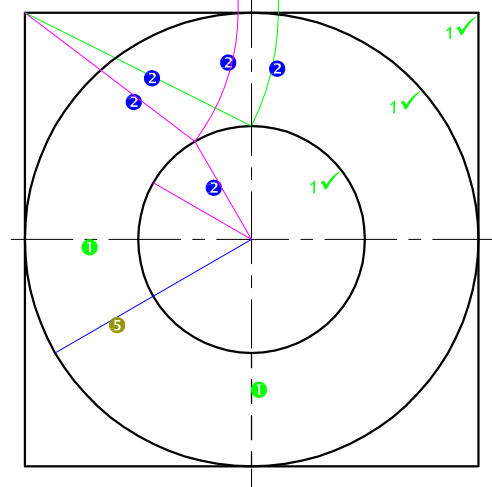
**This memorandum consists of 5 pages.**



ASSESSMENT CRITERIA	
1. CONSTRUCTION + VPs	7
2. ROOF	8 $\frac{1}{2}$
3. WALLS + WINDOW	15 $\frac{1}{2}$
4. CHIMNEY	5
<b>TOTAL</b>	<b>36</b>



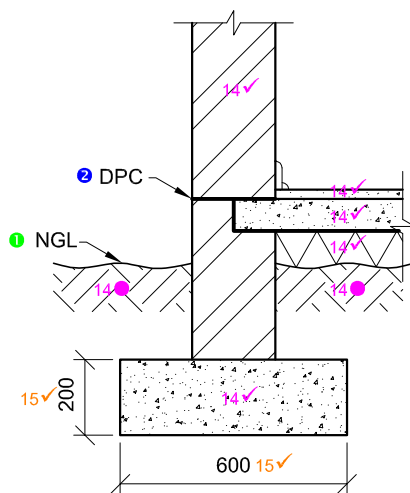
PAPER 1 QUESTION 3  
GRADE 12  
NOVEMBER 2010  
MEMORANDUM



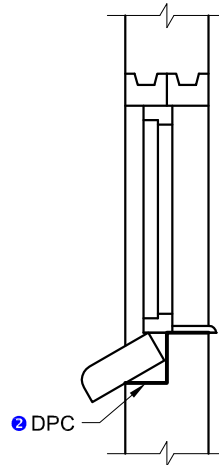
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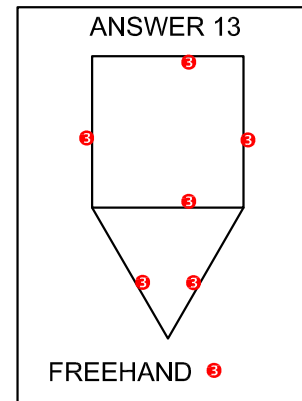
## ANSWERS 1, 2, 14 &amp; 15



## ANSWER 2



## ANSWER 13



FREEHAND

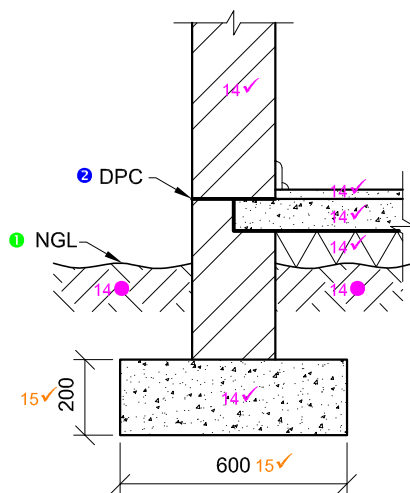
## ANSWERS

1		1/2
2		1
3	A. RAFTER	1
	B. GANG NAIL/TRUSS PLATE/NAIL PLATE	1
	C. TIE BEAM	1
	D. WALL PLATE	1
4	TILES	1
5	LINTEL/BEAM	1
6	TO CARRY/SUPPORT THE WEIGHT ABOVE THE WINDOW.	1
7	TO INDICATE THAT THE WALL IS CONTINUING	1
8	CAVITY WALL	1
9	FOR DISABLED PEOPLE	1
10	3	1
11	ND6/6 & ND9/12	2
12	$5.766 \times 5.036 = 29.0376 \text{ m}^2$ ① $2.124 \times 2.124 = 4.5114 \text{ m}^2$ ① $4.5114 / 2 = 2.2557 \text{ m}^2$ ① $29.0376 - 2.2557 = 26.7819 \text{ m}^2$ ✓	4
13		1/32
14		6
15		2

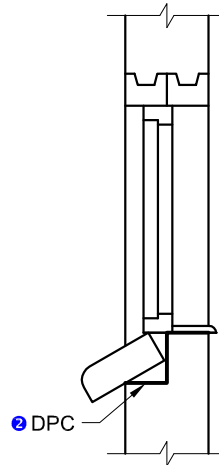
TOTAL: 30



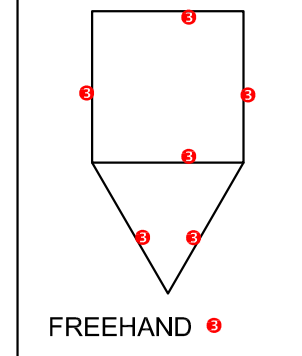
## ANSWERS 1, 2, 14 &amp; 15



## ANSWER 2



## ANSWER 13



## ANSWERS

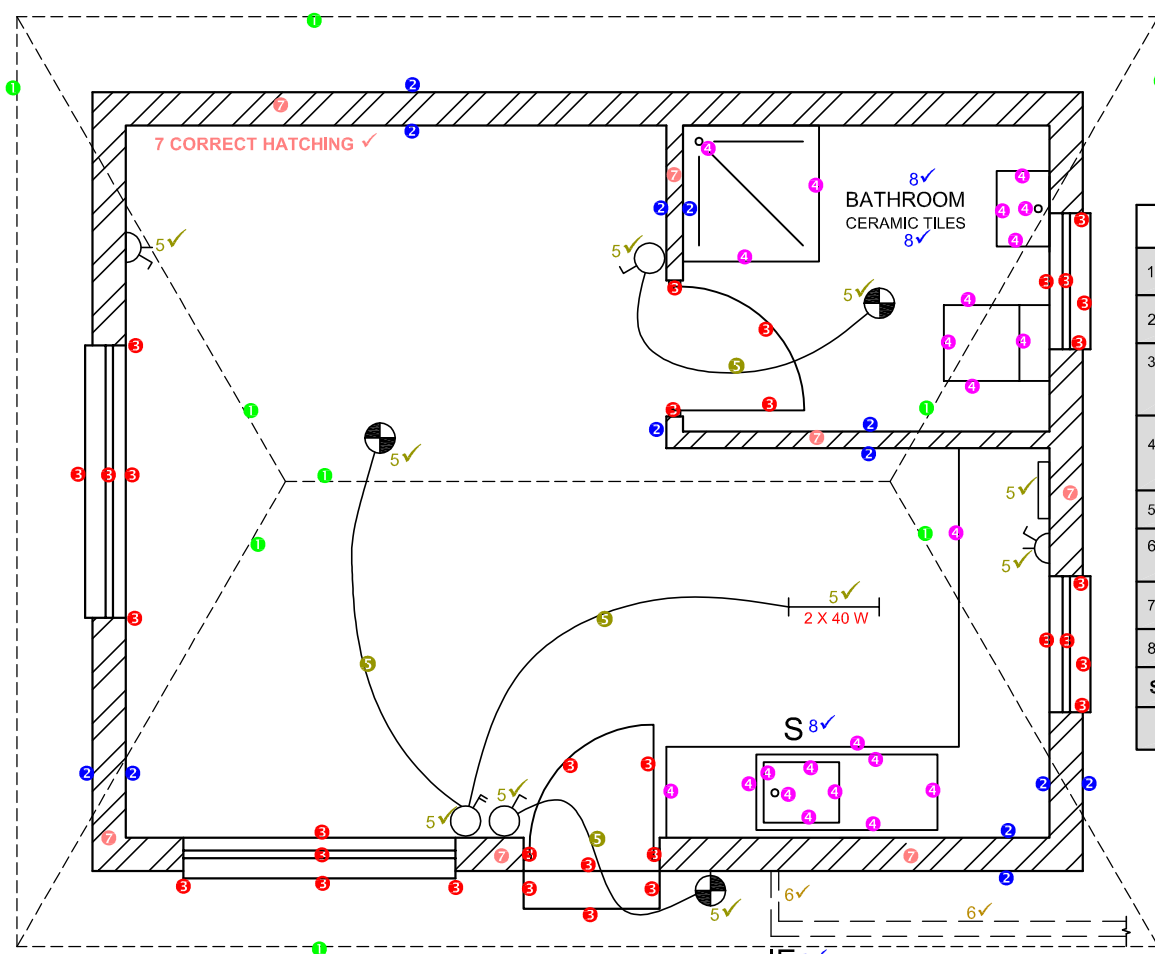
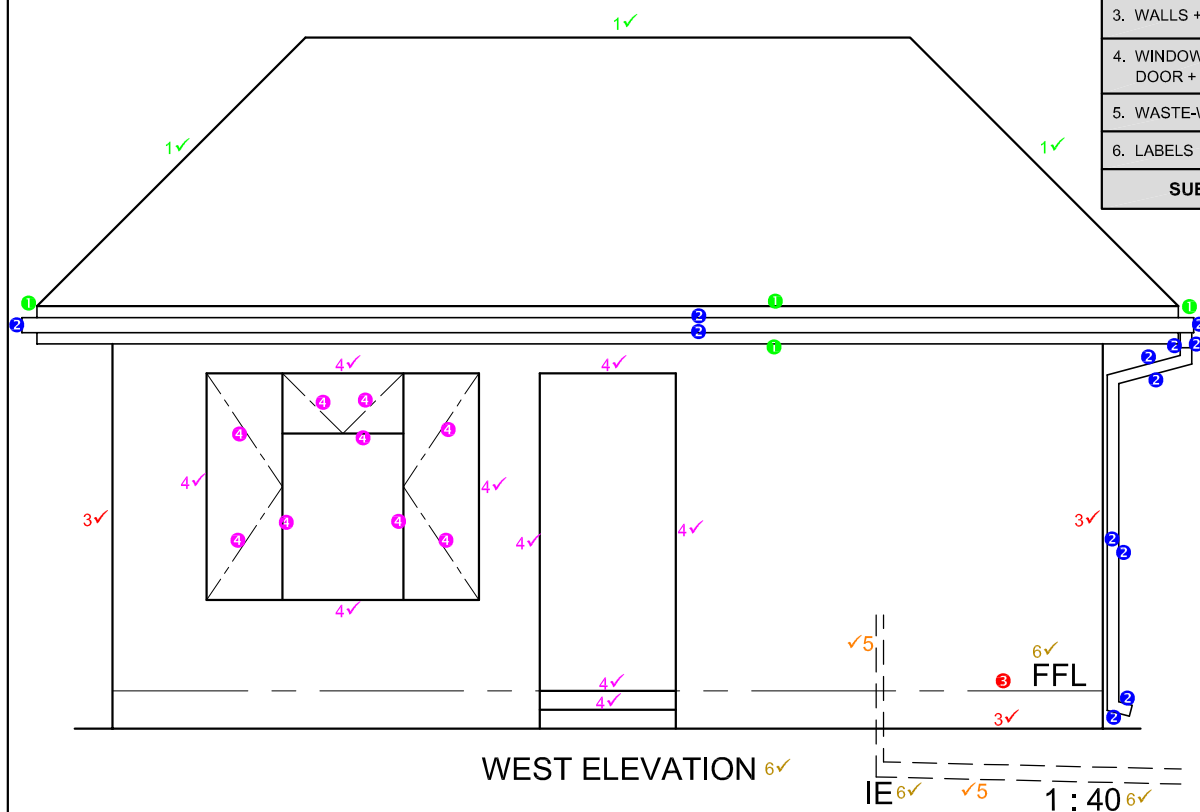
1		$\frac{1}{2}$
2		1
3	A. RAFTER	1
	B. GANG NAIL/TRUSS PLATE/NAIL PLATE	1
	C. TIE BEAM	1
	D. WALL PLATE	1
4	TILES	1
5	LINTEL/BEAM	1
6	TO CARRY/SUPPORT THE WEIGHT ABOVE THE WINDOW.	1
7	TO INDICATE THAT THE WALL IS CONTINUING	1
8	CAVITY WALL	1
9	FOR DISABLED PEOPLE	1
10	3	1
11	ND6/6 & ND9/12	2
12	$5.766 \times 5.036 = 29.0376 \text{ m}^2$ $2.124 \times 2.124 = 4.5114 \text{ m}^2$ $4.5114 / 2 = 2.2557 \text{ m}^2$ $29.0376 - 2.2557 = 26.7819 \text{ m}^2$	4
13		$\frac{1}{32}$
14		6
15		2

TOTAL: 30

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**WEST ELEVATION**

1. ROOF + FASCIA	5
2. GUTTER + RWDP	6
3. WALLS + FFL	3 $\frac{1}{2}$
4. WINDOW + DOOR + STEP	13 $\frac{1}{2}$
5. WASTE-WATER	2
6. LABELS	4
<b>SUBTOTAL</b>	<b>34</b>

**FLOOR PLAN**

1. ROOF	4 $\frac{1}{2}$
2. WALLS	6 $\frac{1}{2}$
3. WINDOW + DOOR + STEP	16
4. KITCHEN+ BATHROOM	11 $\frac{1}{2}$
5. ELECTRIC	12
6. WASTE-WATER	2
7. HATCHING	4 $\frac{1}{2}$
8. LABELS	6
<b>SUBTOTAL</b>	<b>63</b>
<b>TOTAL</b>	<b>97</b>

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