



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

ENGINEERING GRAPHICS AND DESIGN P1

NOVEMBER 2014

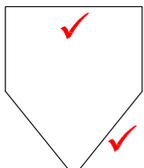
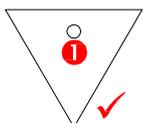
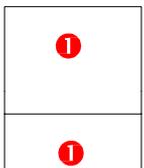
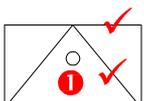
MEMORANDUM

MARKS: 100

This memorandum consists of 7 pages.

ANSWERS		
1	2014-08-05	1
2	VERIFY DIMENSIONS AND LEVELS	1
3	1 : 500	1
4	CHANGE ROAD	1
5	TAR	1
6	CONFERENCE CENTRE	1
7	YELLOW	1
8	BLUE	1
9	HEIGHT ABOVE SEA LEVEL/CORNER HEIGHT	1
10	MAN HOLE	1
11	BOUNDARY LINE	1
12	PAVEMENT	1
13	CONTROL POINT/GUARD HOUSE	1
14	COMPACTED HARD CORE	1
15	RIDGE ROAD	2
16	24	2
17	75,128	2
18	129,6 [calculation 1, answer 1, converted to metres 1]	3
19	865,67 m ² [calculation 1, answer 1, metres ² 1]	3
20	(See below)	4

TOTAL: 30

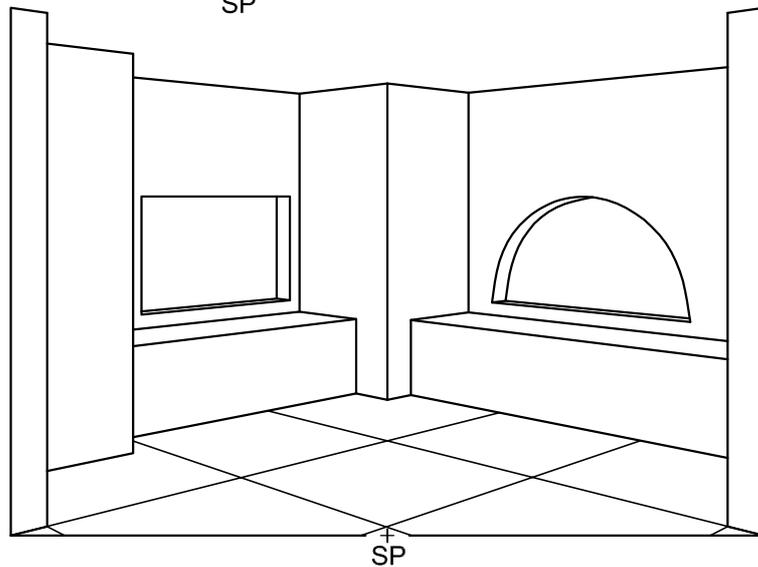
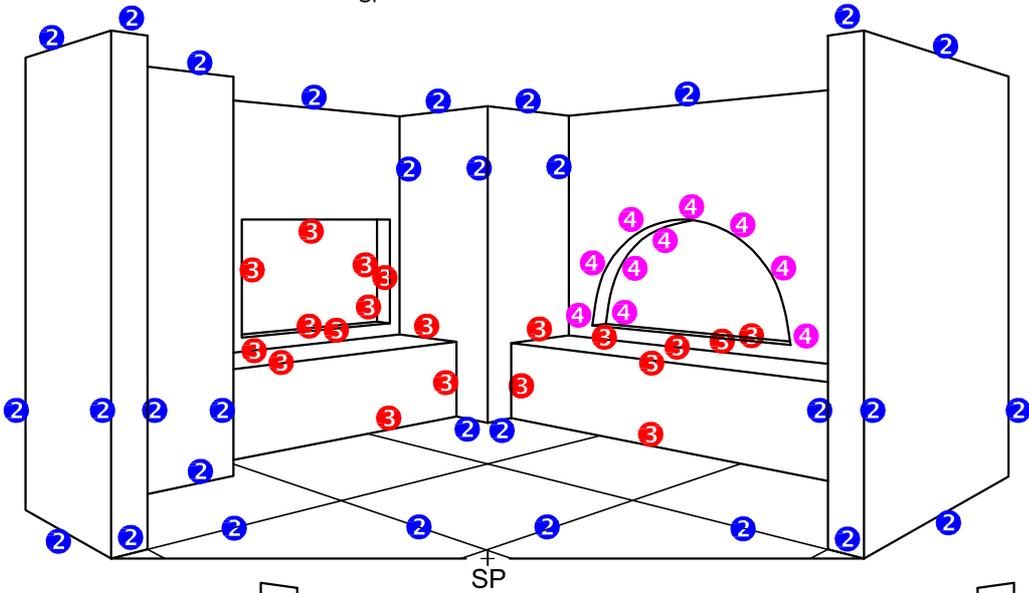
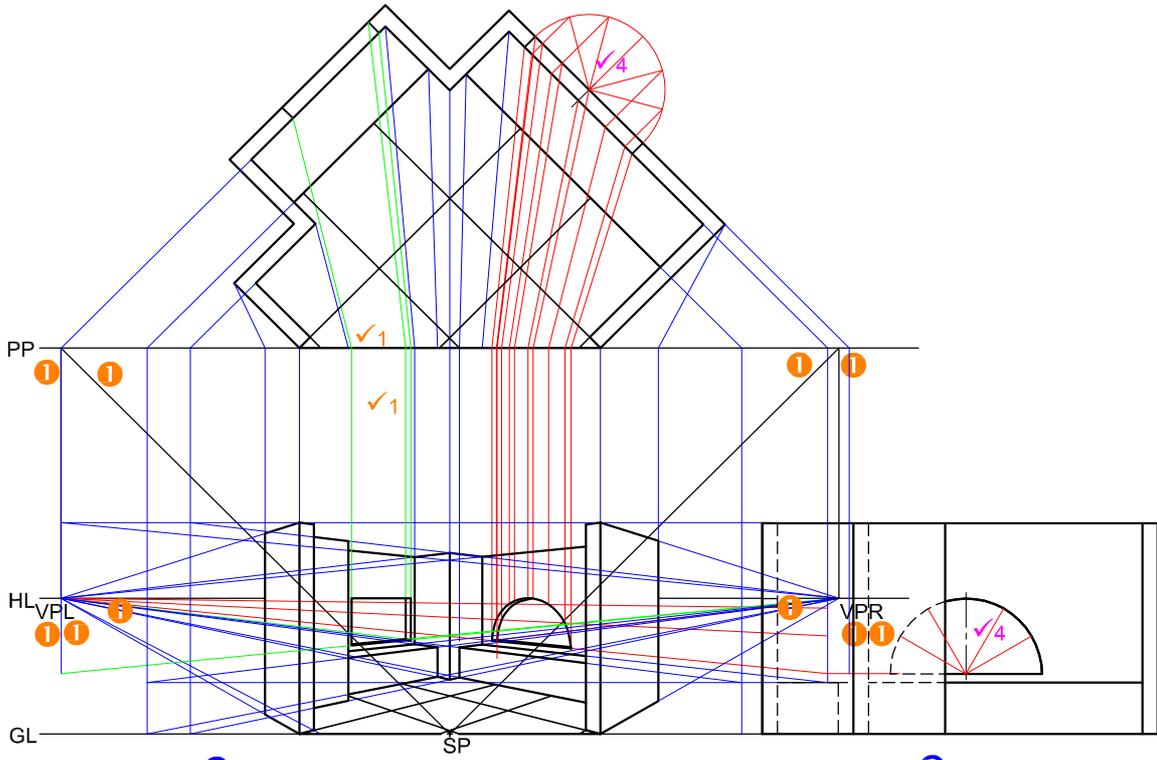
<p>20</p> <p style="text-align: center;">FREEHAND ①</p>  	<p>20</p> <p style="text-align: center;">FREEHAND ①</p>   <p style="text-align: center;">ALTERNATIVE ANSWER</p>
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The drawing illustrates the construction of a composite object in three views: Front View (top), Top View (middle), and Left View (bottom). The object consists of a hexagonal prism with a square hole and a pentagonal pyramid attached to its side. Construction lines and hatching are used to define the object's geometry. Red numbers (1-3) and blue numbers (1-2) mark key construction points. Purple 'H4' labels identify the hexagonal prism, square hole, and pentagonal pyramid. Reference lines X, Y, X', Y', and T are used for alignment.

ASSESSMENT CRITERIA

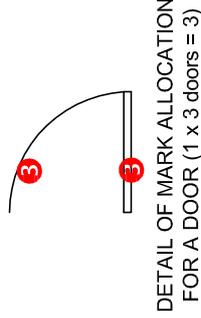
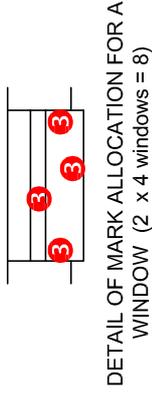
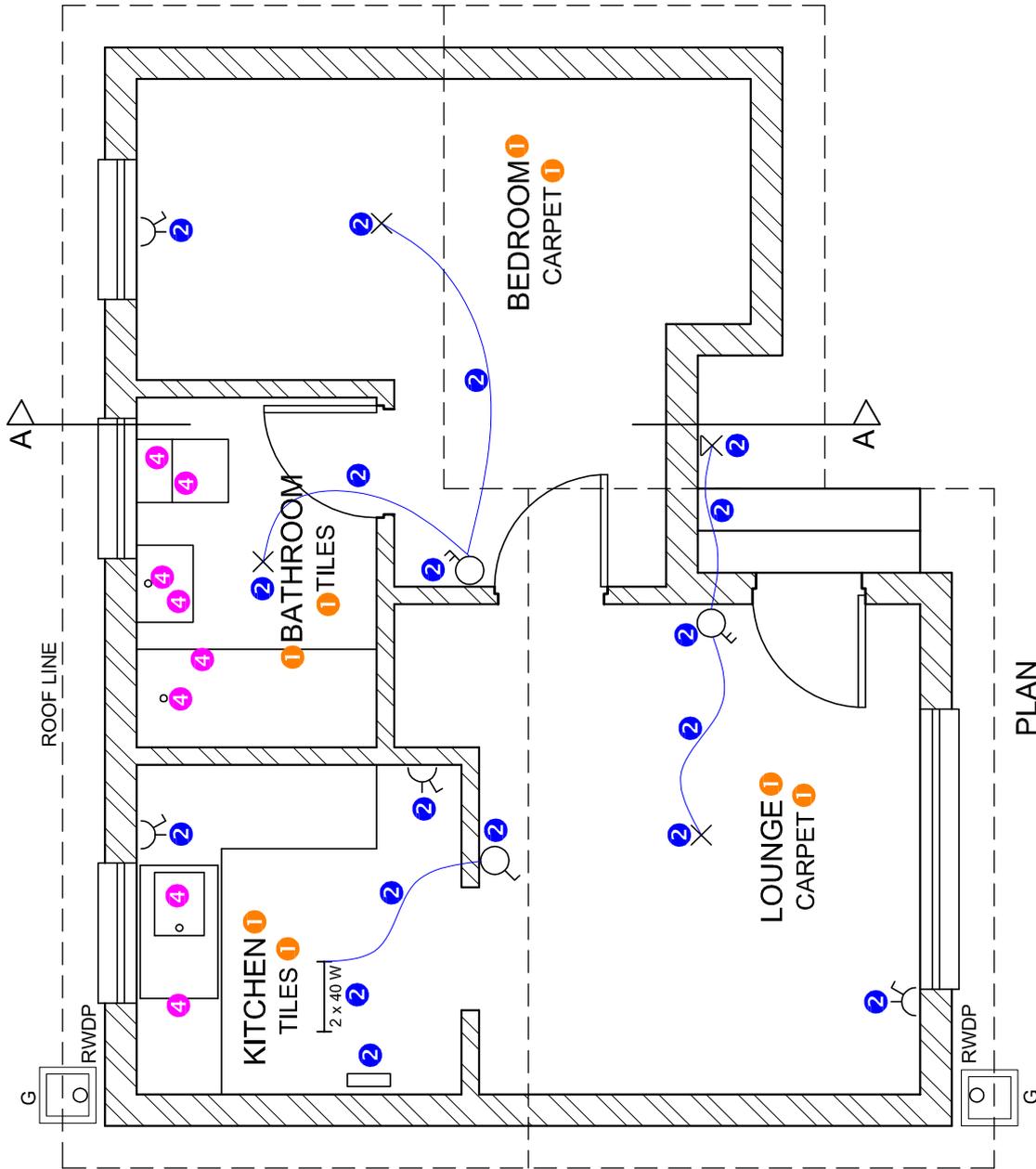
1	CONST. + FRONT VIEW	7
2	SECTIONAL TOP VIEW	12½
3	SECTIONAL LEFT VIEW	15
4	HATCHING	3½
TOTAL		38

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ASSESSMENT CRITERIA		
1	CONSTRUCTION + VPs	7
2	WALLS + TILES	15
3	OPENINGS + SEATING	10
4	SEMI-CIRCLE	7
TOTAL		39

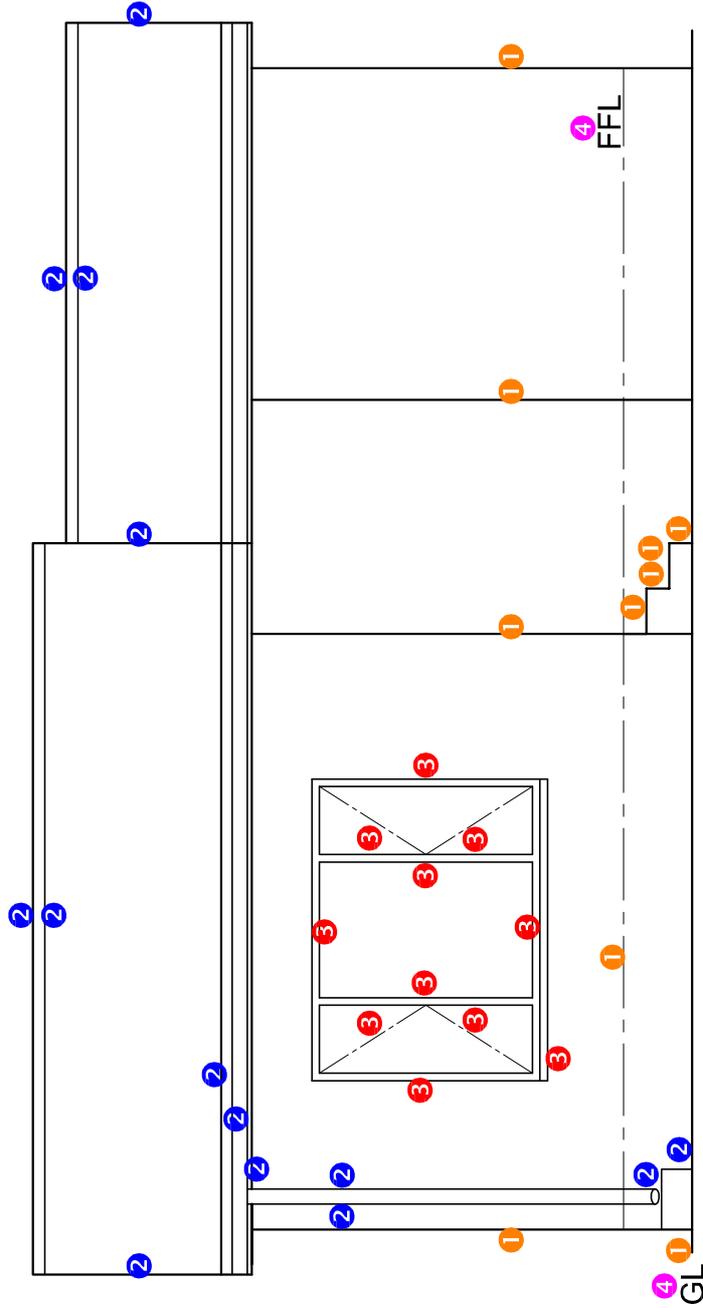
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4 HATCHING ALLOCATION
 SANS COMPLIANT (TYPE) 2
 HATCHING CORRECTLY APPLIED 2
 TOTAL 4

ASSESSMENT CRITERIA	
PLAN	
1	LABELS 4
2	ELECTRICAL 9
3	DOORS + WINDOWS 11
4	FIXTURES 4
5	HATCHING 4
SUBTOTAL 32	

PLAN
 SCALE 1 : 50

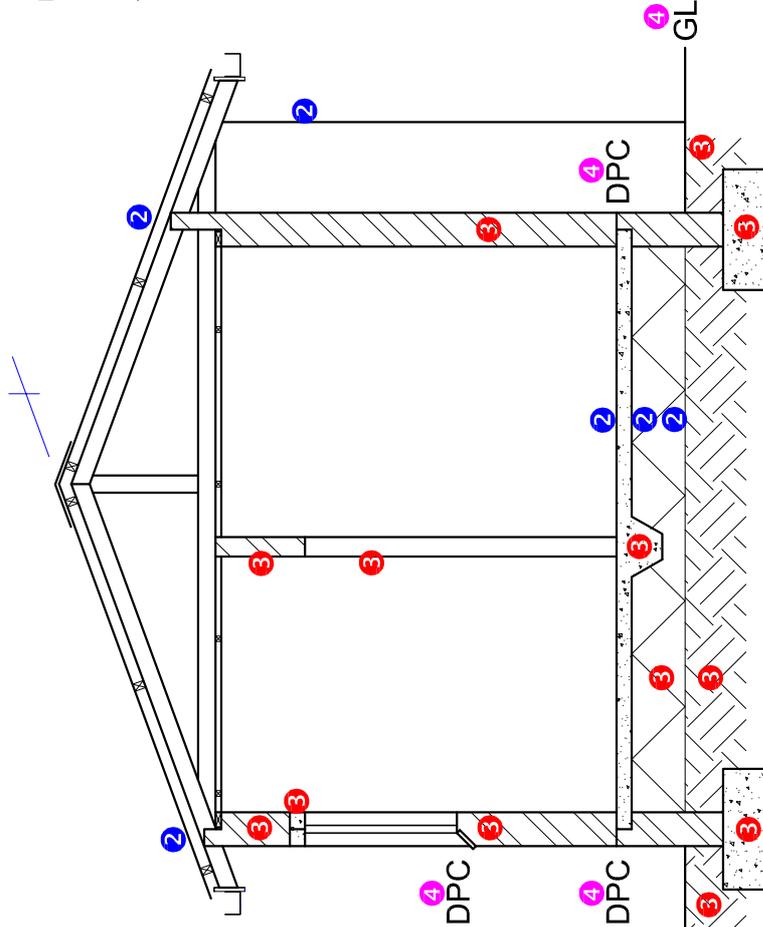


NORTH ELEVATION

ASSESSMENT CRITERIA		
NORTH ELEVATION		
1	WALLS + FFL	5
2	ROOF + FACIA BOARD + GUTTER + RWDP	7
3	WINDOW	5½
4	LABELS	1½
SUBTOTAL		19

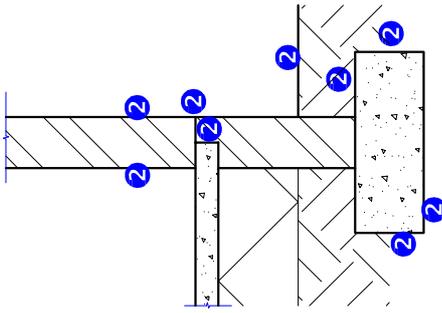
ROOF MARK ALLOCATION (1)

CORRECT ANGLE	1
ROOF SHEET	1
ROOF CAP	1/2
PURLINS	2
TRUSS (7 x 1/2)	3 1/2
WALL PLATE (2 x 1/2)	1
FASCIA BOARD (2 x 1/2)	1
GUTTER	2
BRANDERING	2
CEILING BOARD	1
TOTAL	15

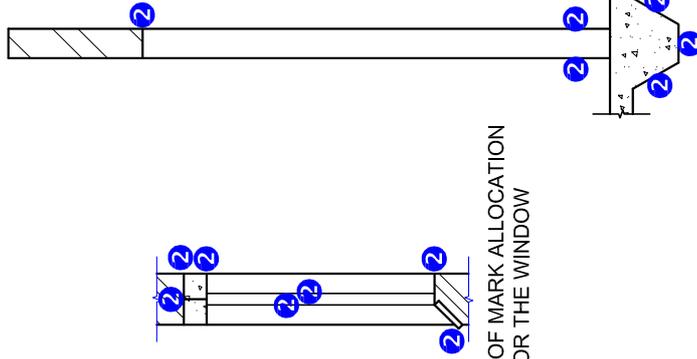


SECTION A-A

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DETAIL OF THE MARK ALLOCATION FOR BOTH LOAD-BEARING WALLS (9 x 1/2) x 2 = 9



DETAIL OF MARK ALLOCATION FOR THE WINDOW

DETAIL OF THE MARK ALLOCATION FOR INTERNAL WALL AND FOOTING

ASSESSMENT CRITERIA	
SECTIONAL ELEVATION A-A	
1	ROOF + FACIA BOARD + GUTTER + RWDP 15
2	WALLS + FLOOR + FOUNDATION 18
3	HATCHING 6 1/2
4	LABELS 2 1/2
SUBTOTAL 42	