



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**SENIOR CERTIFICATE/
NATIONAL SENIOR CERTIFICATE**

GRADE 12

ENGINEERING GRAPHICS AND DESIGN P1

NOVEMBER 2020

MARKING GUIDELINES

MARKS: 100

These marking guidelines consist of 8 pages.

ANSWERS		
1	422-2019	1
2	(MR) A BOBANI	1
3	2019-09-21	1
4	2	1
5	2	1
6	10810	1
7	INSPECTION CHAMBER	1
8	1,8	1
9	RE	1
10	RED	1
11	BUILDING LINE / BL	1
12	EARTH / LIGHTNING CONDUCTOR	1
13	DRAIN FIELD	1
14	1 : 30	1
15	NORTH WEST	2
16	4	2
17	14,89	2
18	<i>See the title panel</i>	3
19		3
20		4
TOTAL		30

ANSWER 18

✓ =FORMULA

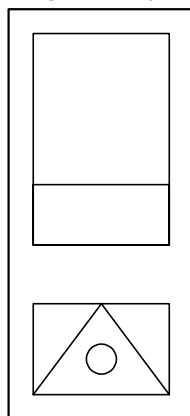
$$\begin{aligned} \text{Perimeter} &= (59,50 + 23,45 + 61,15 + 37,5) \cdot 3,5 \\ &= 178,1 \checkmark \text{m} \checkmark \end{aligned}$$

ANSWER 19

✓ =FORMULA

$$\begin{aligned} \text{Area} &= (10 \times 6) + (5,55 \times 8,14) + (2,5 \times 3,75) \\ &= 114,55 \checkmark \text{m}^2 \checkmark \end{aligned}$$

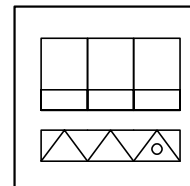
ANSWER 20



RECTANGLE 1
LINE 0,5
FREEHAND 0,5

RECTANGLE 1
TRIANGLE 0,5
HOLE 0,5

SANS 10143



ASSESSMENT CRITERIA

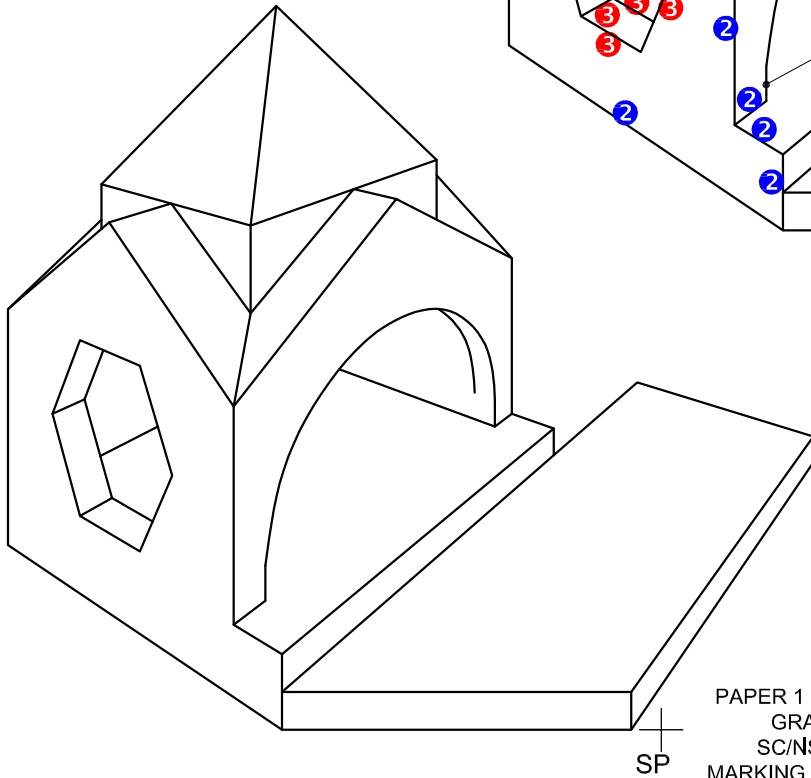
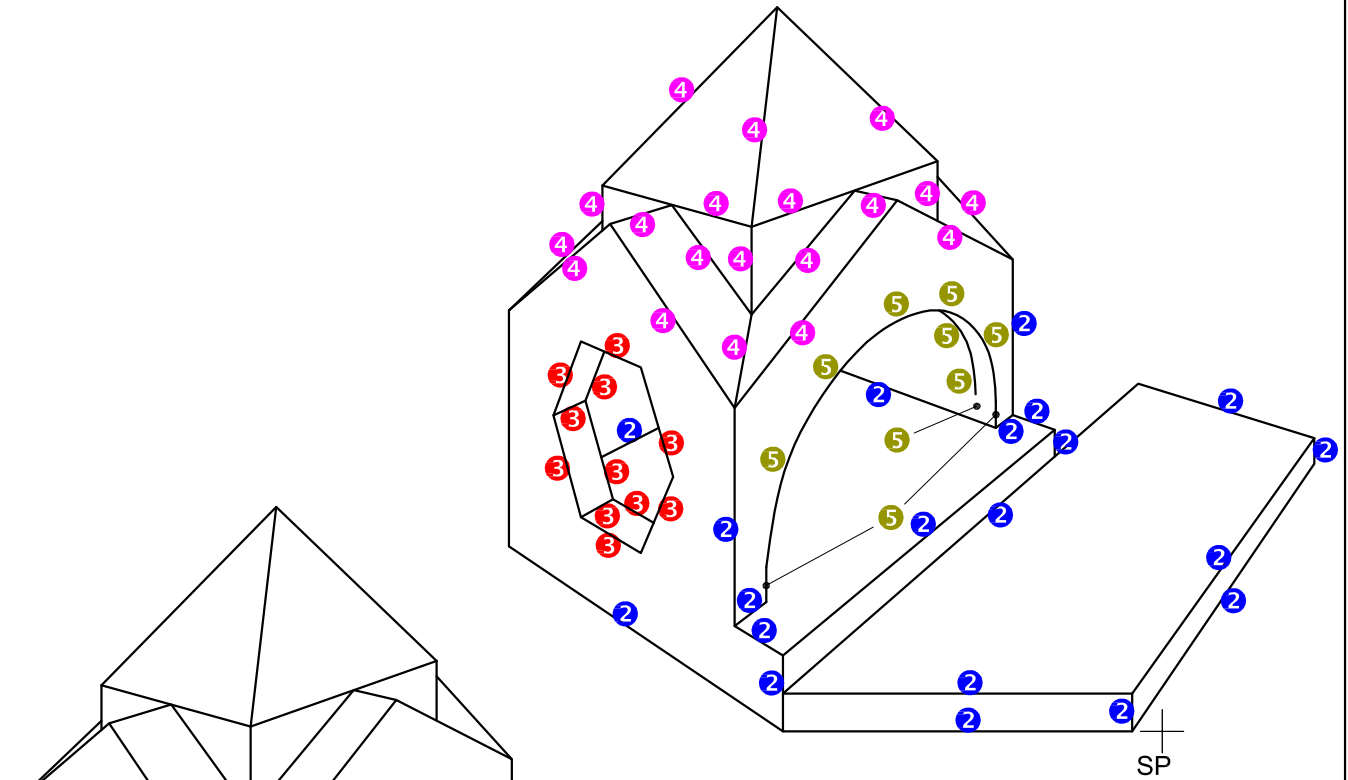
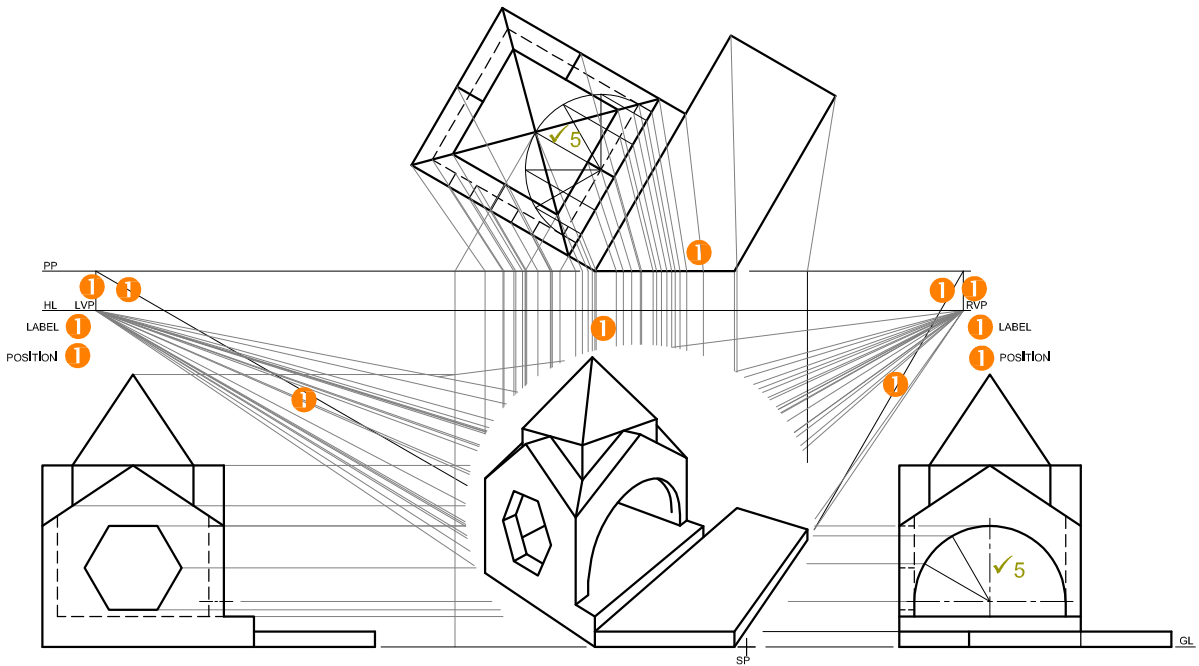
1	FRONT VIEW	7½
2	SECTIONAL TOP VIEW + CONSTRUCTION	13½
3	SECTIONAL RIGHT VIEW	11½
4	TRUE SHAPE	5½
TOTAL		38

2. CONSTRUCTION
 HEXAGON ROTATION TOTAL
 1 1 2

3. TRUE SHAPE
 ANY RECOGNIZED METHOD
 1

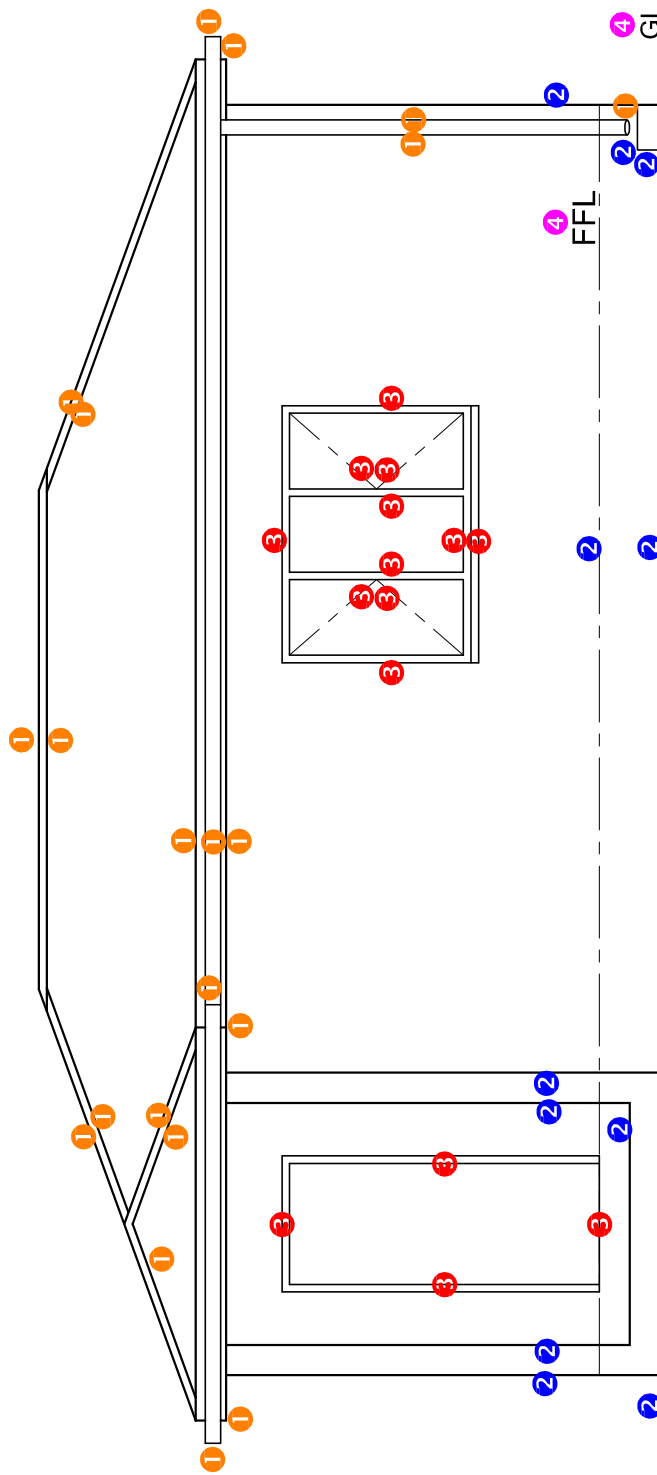
4. TRUE SHAPE
 ANY RECOGNIZED METHOD
 1

PAPER 1 QUESTION 2
 GRADE 12
 NOVEMBER 2019
 MARKING GUIDELINES



PAPER 1 QUESTION 3
 GRADE 12
 SC/NSC 2020
 MARKING GUIDELINES

ASSESSMENT CRITERIA		
1	CONSTRUCTION	6
2	WALLS	10½
3	HEXAGONAL OPENING	5½
4	ROOF	9½
5	CURVE	6½
TOTAL		38

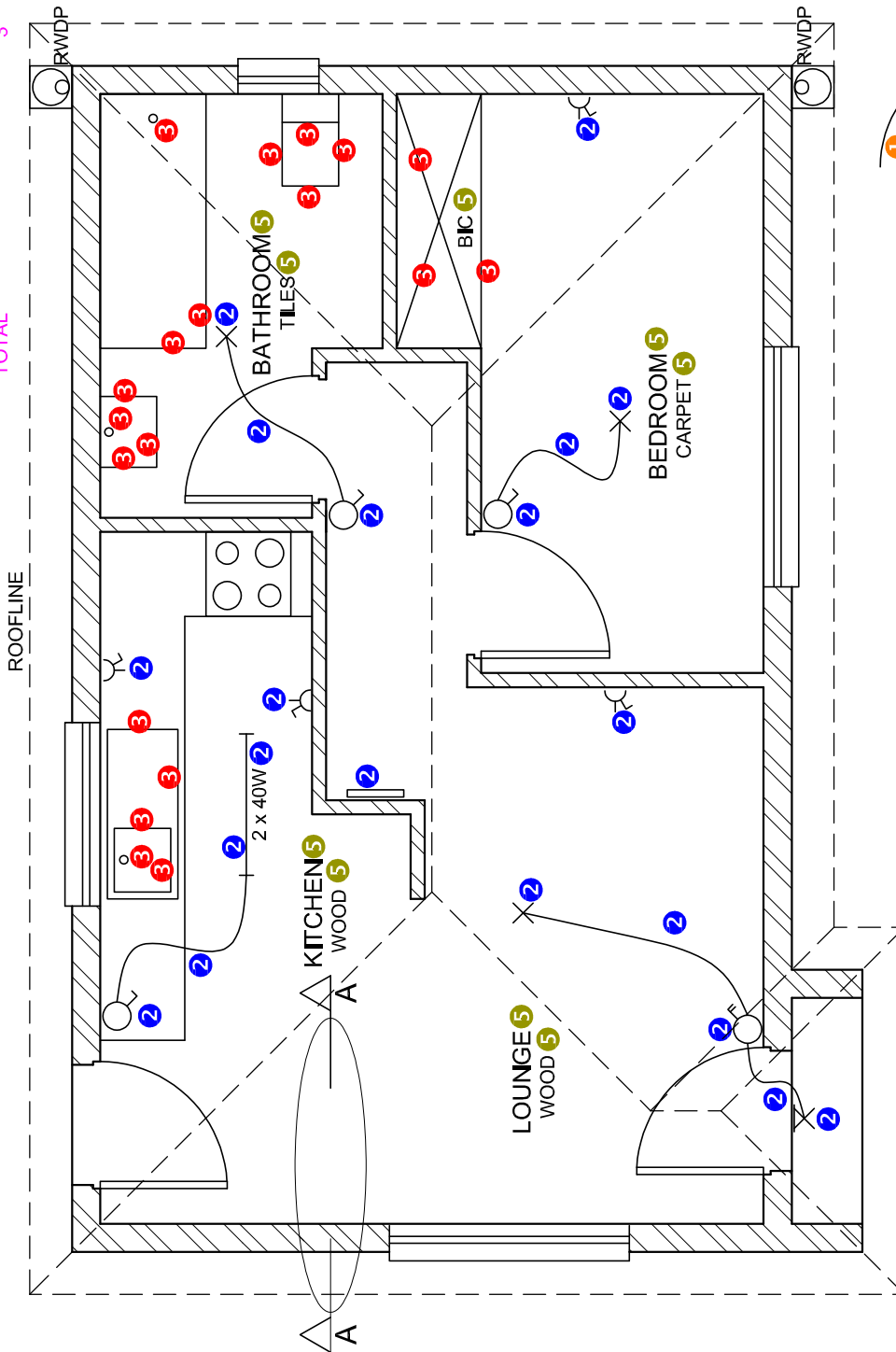


SOUTH ELEVATION 4

ASSESSMENT CRITERIA	
SOUTH ELEVATION	
1	ROOF + RWDP 10½
2	WALLS + FFL 5½
3	DOOR + WINDOW 7½
4	LABELS 1½
SUBTOTAL 25	

PAPER 1 QUESTION 4
 GRADE 12
 SC/NSC 2020
 MARKING GUIDELINES

4 HATCHING ALLOCATION 1
 SANS COMPLIANT (TYPE) 2
 HATCHING CORRECTLY APPLIED 3
 TOTAL 3



FLOOR PLAN
 SCALE 1 : 50

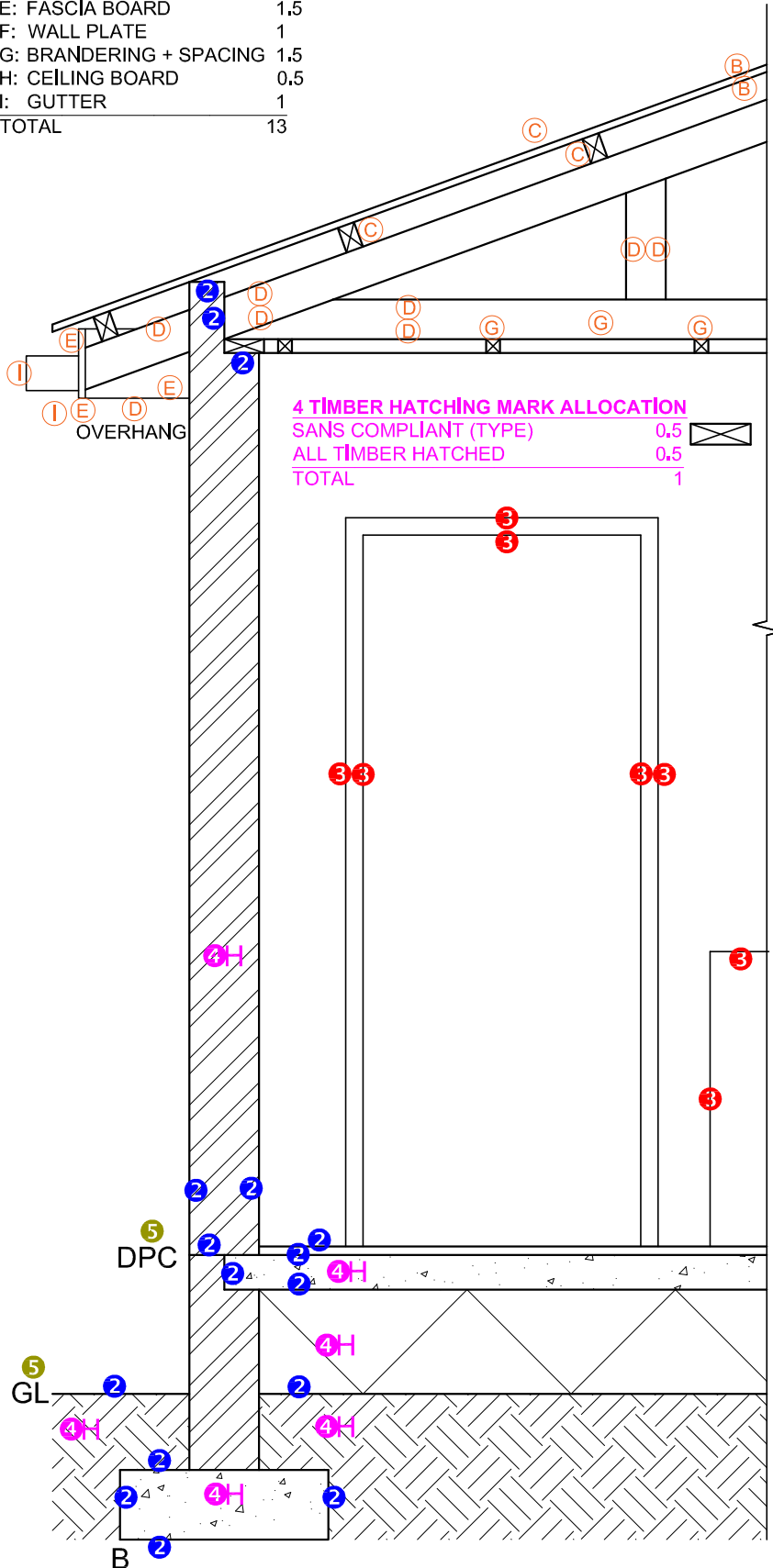


PAPER 1 QUESTION 4
 GRADE 12
 SC/NSC 2020
 MARKING GUIDELINES

ASSESSMENT CRITERIA		
FLOOR PLAN		
1	DOORS + WINDOWS	12
2	ELECTRICAL	10
3	FIXTURES	9½
4	HATCHING	3
5	LABELS	4½
SUBTOTAL		39

MARK ALLOCATION FOR ROOF (1)

A: ROOF ANGLE	1
B: ROOF SHEET	1
C: PURLIN + SPACING	1,5
D: TRUSS + OVERHANG	4
E: FASCIA BOARD	1,5
F: WALL PLATE	1
G: BRANDING + SPACING	1,5
H: CEILING BOARD	0,5
I: GUTTER	1
TOTAL	13



DETAILED SECTION A-A
SCALE 1 : 20

PAPER 1 QUESTION 4
GRADE 12
SC/NSC 2020
MARKING GUIDELINES

ASSESSMENT CRITERIA		
DETAILED SECTION		
1	ROOF DETAIL	13
2	WALL	8
3	DOOR + CUPBOARD	4
4	HATCHING	4
5	LABELS	1
SUBTOTAL		30