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Collected and collated by

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# basic education

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

## **SENIOR CERTIFICATE EXAMINATIONS/ NATIONAL SENIOR CERTIFICATE EXAMINATIONS**

### **ENGINEERING GRAPHICS AND DESIGN P2**

**2019**

### **MARKING GUIDELINES**

**MARKS: 100**

**These marking guidelines consist of 9 pages  
and 1 A3 sheet.**

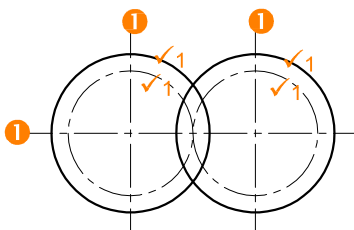
**APPROVED:**

UMALUSI	- S. de Bruin
IM	- J van Leeuwen
CM	- W Goodchild

ANSWERS		
1	COMPASS	1
2	WESSLY	1
3	TOOL STEEL	1
4	16	1
5	RIGHT VIEW	1
6	MORE ACCURATE ADJUSTMENT/REMAINS ACCURATE	1
7	QUICK RELEASE FOR EASIER or QUICKER OPENING / CLOSING OF THE LEGS	1
8	Ø 78	1
9	12°, 13°, 14°	1
10	C:        M3	

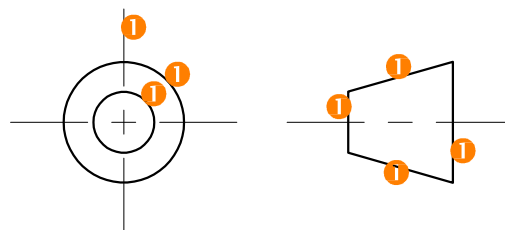
ANSWER 16:  
Convention for gears meshing

① FREEHAND



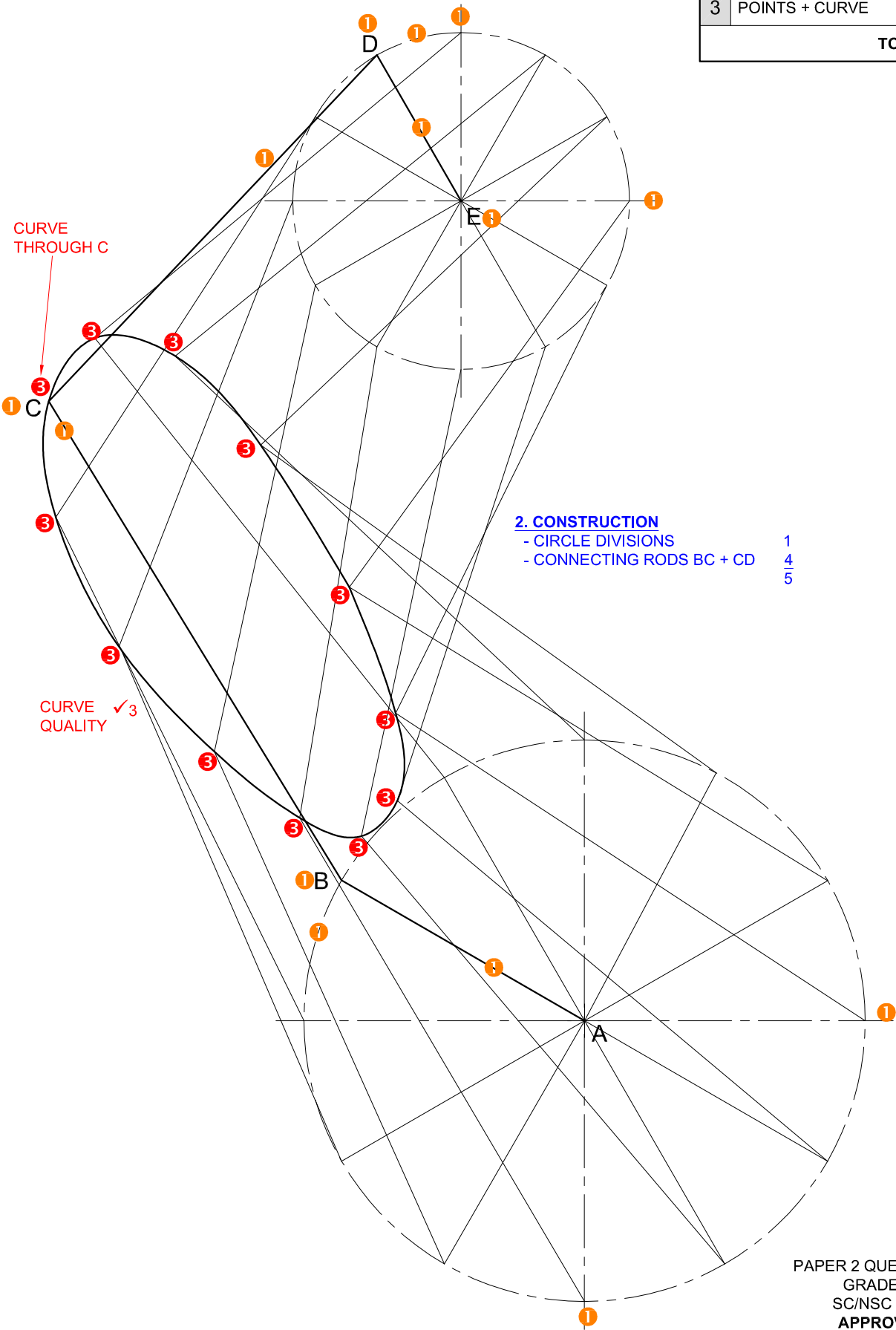
ANSWER 17: Projection symbol

① FREEHAND



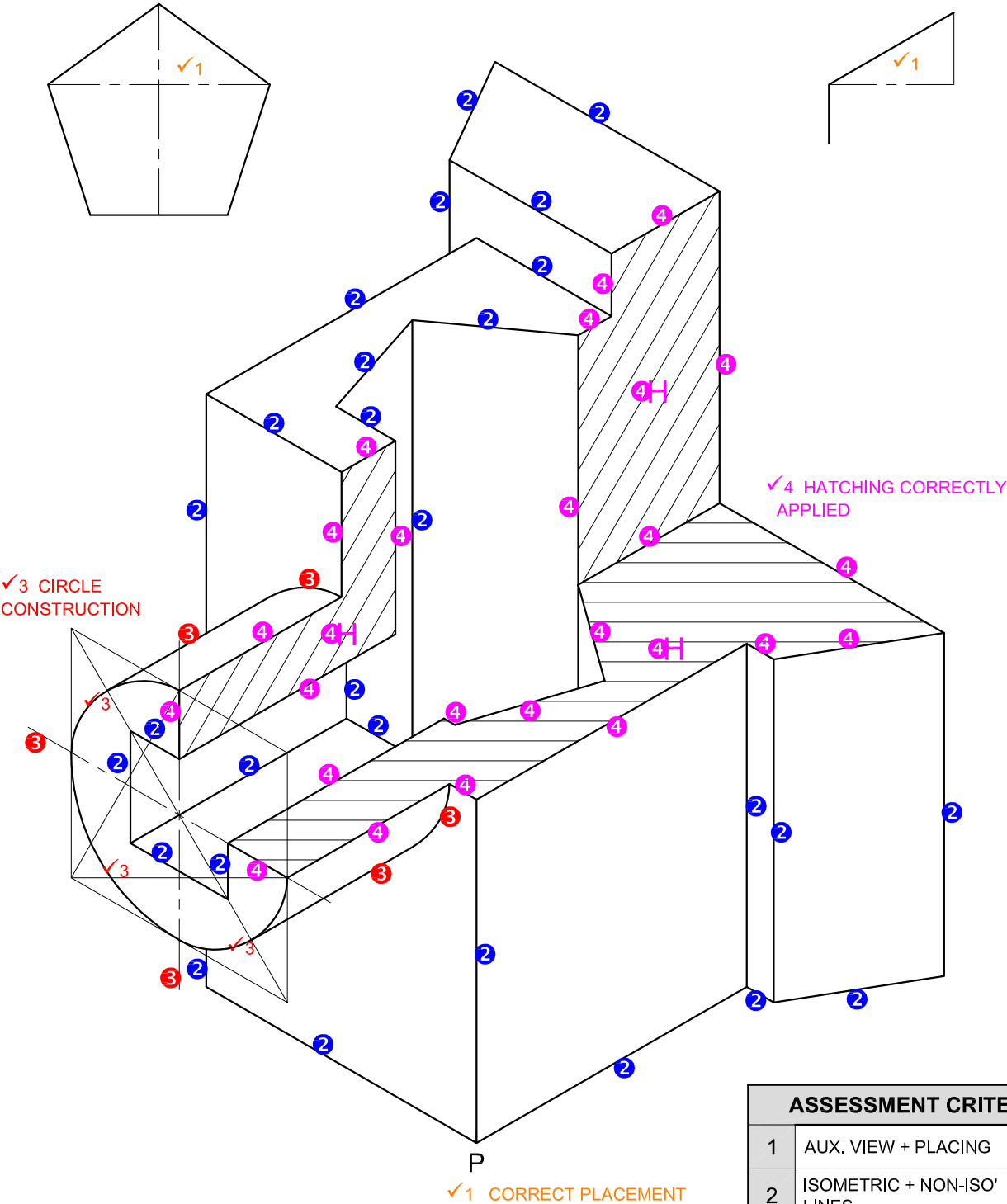
PAPER 2 QUESTION 1  
GRADE 12  
SC/NSC 2019  
**APPROVED**  
MARKING GUIDELINE

ASSESSMENT CRITERIA 2.1		
1	GIVEN	7
2	CONSTRUCTION	5
3	POINTS + CURVE	7
TOTAL		19



PAPER 2 QUESTION 2.1  
GRADE 12  
SC/NSC 2019  
APPROVED  
MARKING GUIDELINE

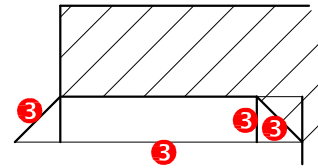
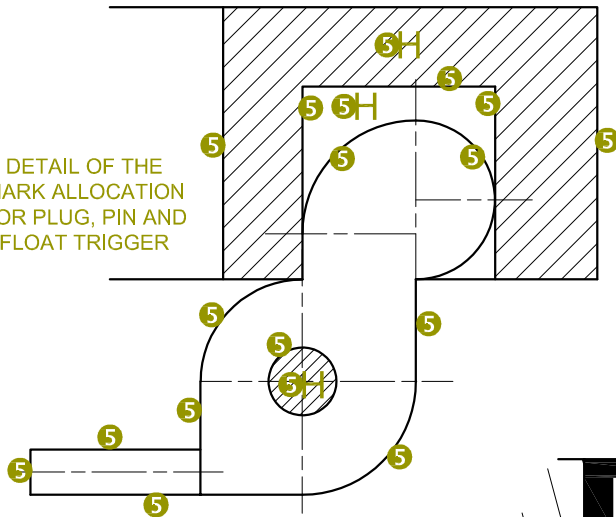




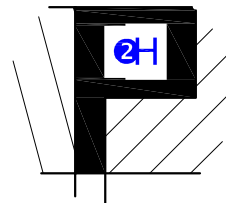
ASSESSMENT CRITERIA		
1	AUX. VIEW + PLACING	3
2	ISOMETRIC + NON-ISO' LINES	14
3	ISOMETRIC CIRCLES + CIRCLE CONSTR'	7
4	SECTIONED SURFACES + HATCHING	14
TOTAL		38

PAPER 2 QUESTION 3  
GRADE 12  
SC/NSC 2019  
**APPROVED**  
MARKING GUIDELINE

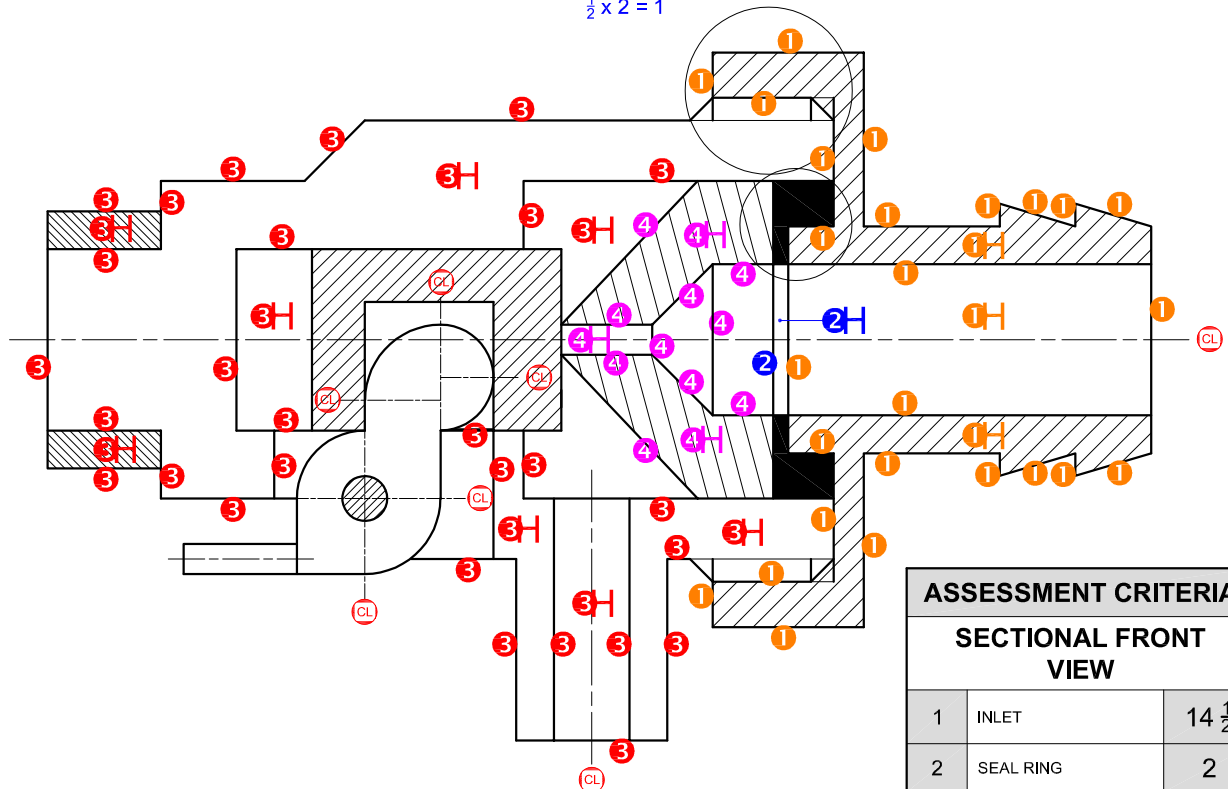
DETAIL OF THE  
MARK ALLOCATION  
FOR PLUG, PIN AND  
FLOAT TRIGGER



DETAIL OF THE MARK  
ALLOCATION FOR SCREW  
THREAD OF THE VALVE BODY  
 $2 \times 2 = 4$



DETAIL OF THE MARK ALLOCATION  
FOR HATCHING OF  
THE SEAL RING  
 $\frac{1}{2} \times 2 = 1$

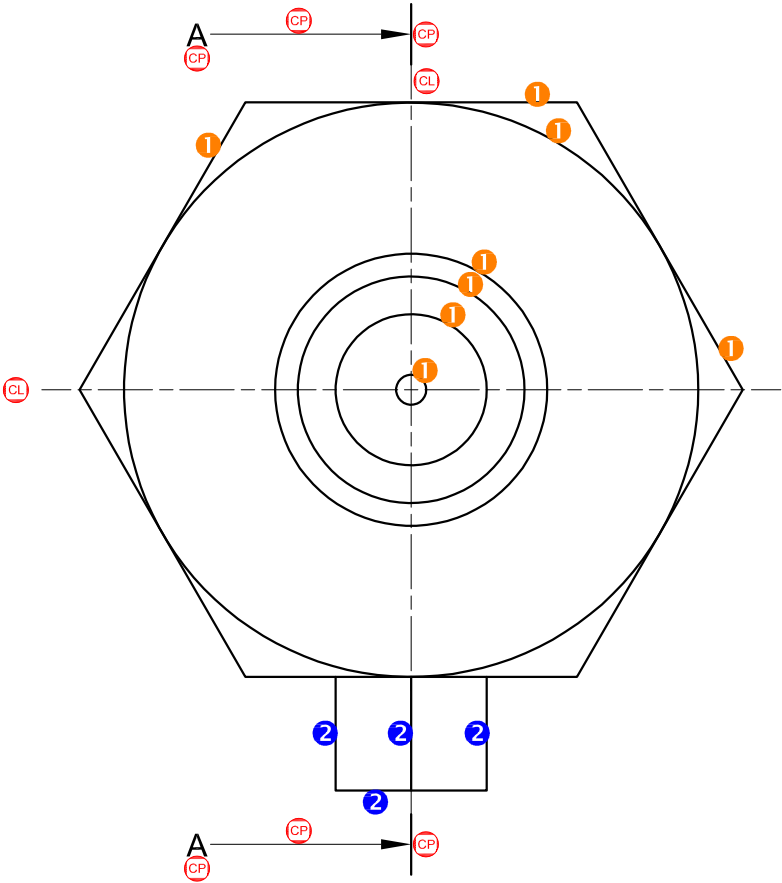


#### ASSESSMENT CRITERIA

##### SECTIONAL FRONT VIEW

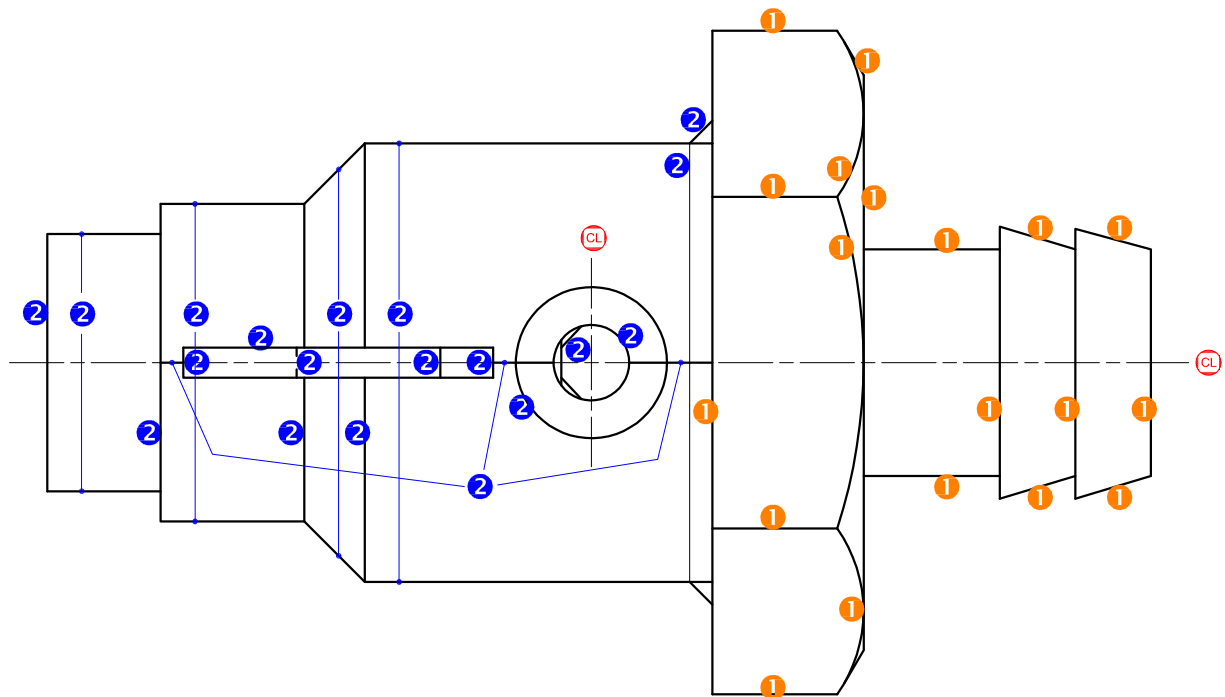
1	INLET	$14 \frac{1}{2}$
2	SEAL RING	2
3	VALVE BODY + RETAINING RING	22
4	JET	$6 \frac{1}{2}$
5	FLOAT TRIGGER + PIN + PLUG	9
<b>SUBTOTAL</b>		<b>54</b>

PAPER 2 QUESTION 4  
GRADE 12  
SC/NSC 2019  
**APPROVED**  
MARKING GUIDELINE



ASSESSMENT CRITERIA		
RIGHT VIEW		
1	INLET + JET	4
2	VALVE BODY	2
SUBTOTAL		6

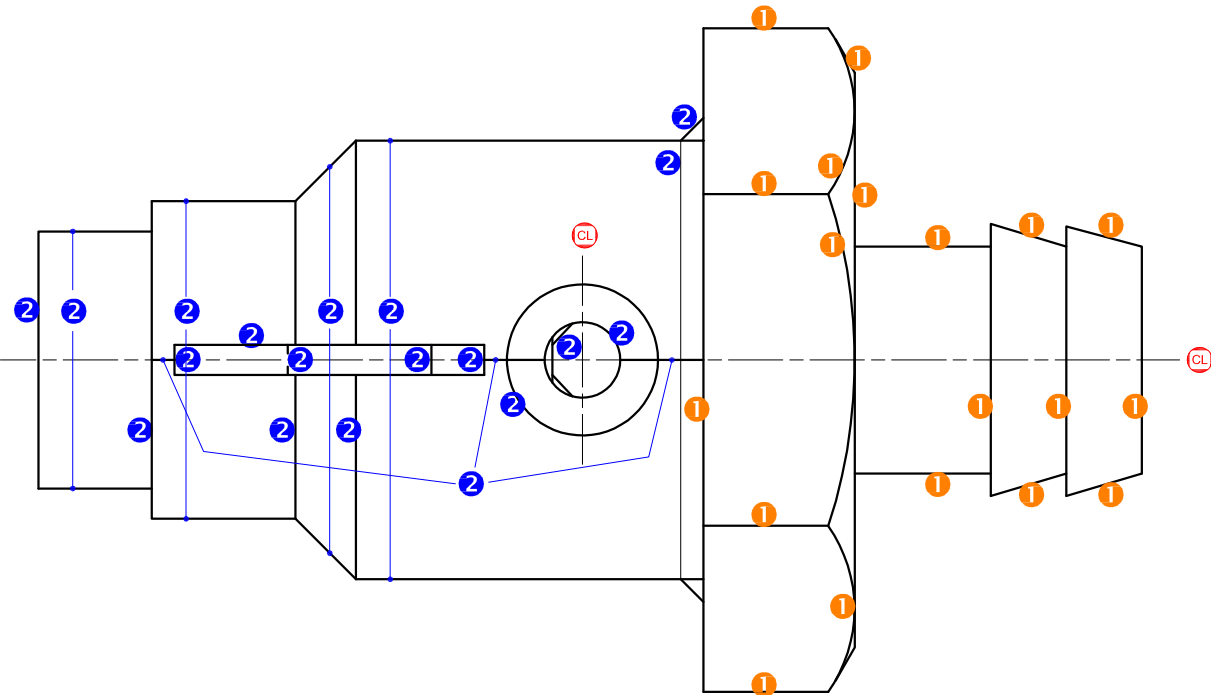
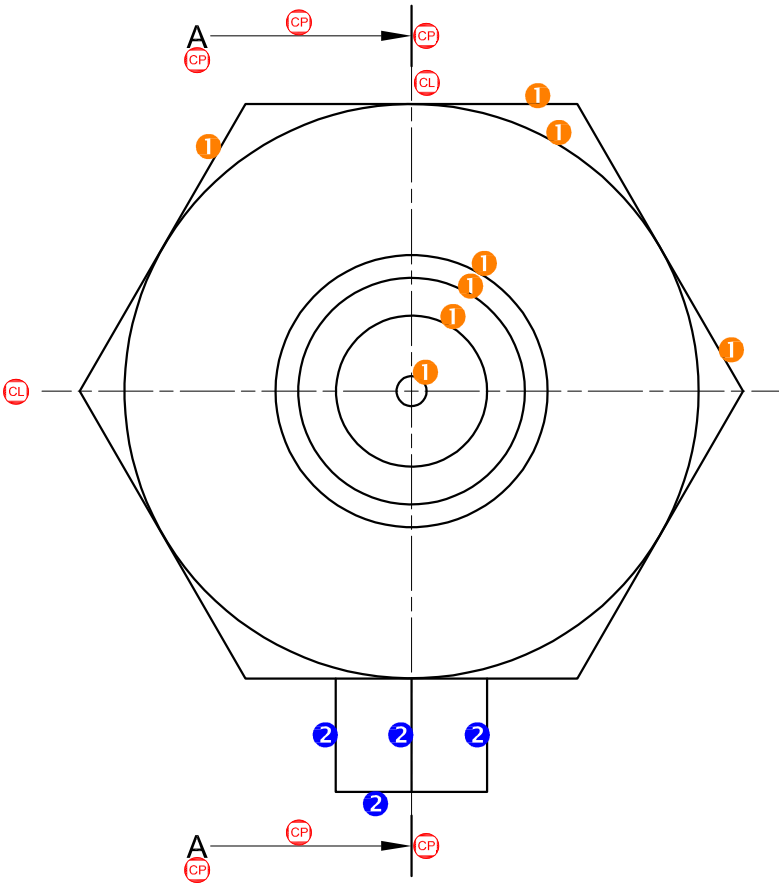
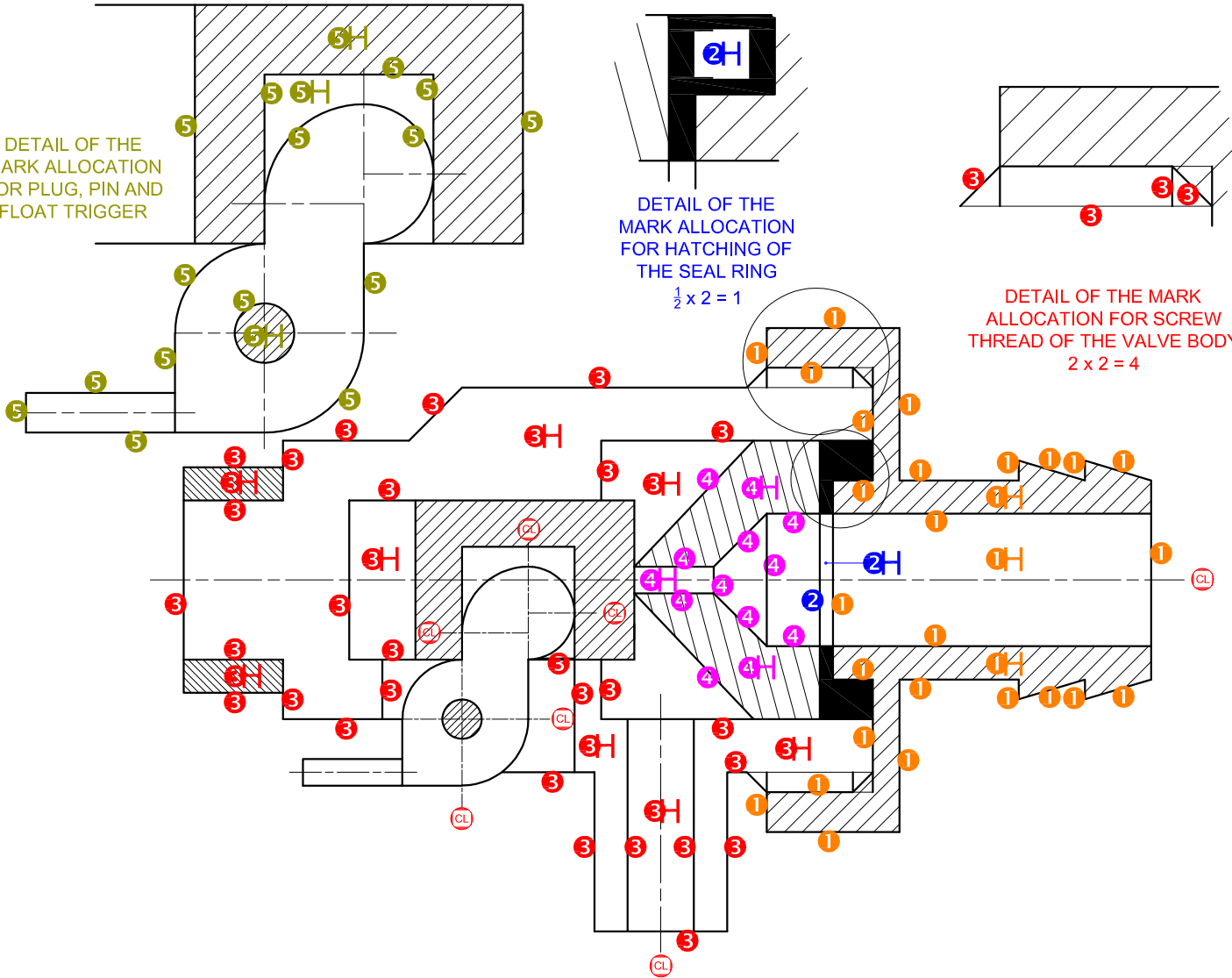
PAPER 2 QUESTION 4  
GRADE 12  
SC/NSC 2019  
**APPROVED**  
MARKING GUIDELINE

**ASSESSMENT CRITERIA****BOTTOM VIEW**

1	INLET	9 $\frac{1}{2}$
2	VALVE BODY + RETAINING RING + JET	9 $\frac{1}{2}$
<b>SUBTOTAL</b>		<b>19</b>

PAPER 2 QUESTION 4  
 GRADE 12  
 SC/NSC 2019  
**APPROVED**  
 MARKING GUIDELINE

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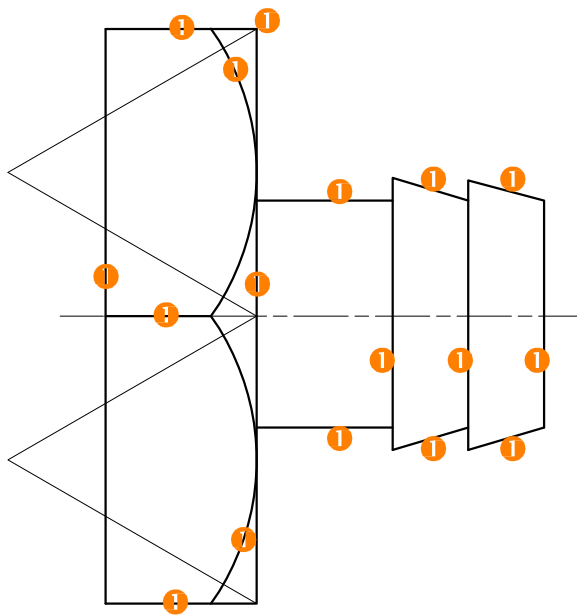
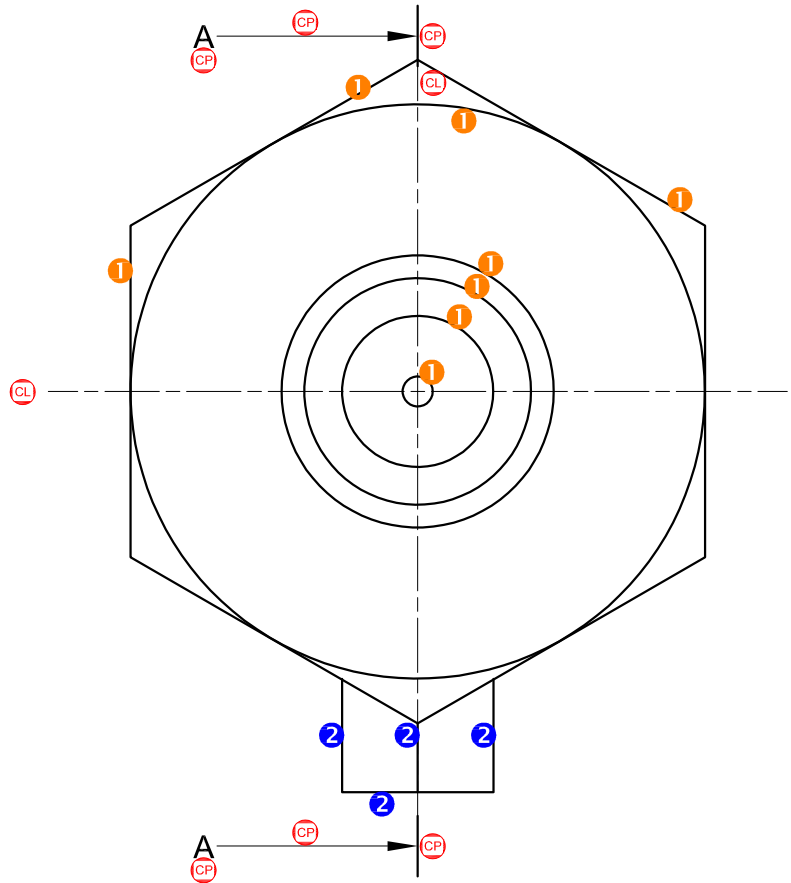


3. ASSEMBLY  
1 MARK FOR EVERY  
COMPONENT CORRECTLY  
ASSEMBLED (9 PARTS -1) = 8

1. CENTRE LINE MARK ALLOCATION	
SANS COMPLIANT (LINE TYPE)	2
11 CENTRE LINES	2
TOTAL	4

FOR OFFICIAL USE ONLY	
INCORRECT ORTHOGRAPHIC PROJECTION	
INCORRECT OVERALL SCALE	
INCORRECT HATCHING	
PARTS NOT ASSEMBLED	
TOTAL PENALTIES (-)	

ASSESSMENT CRITERIA					
RIGHT VIEW					
		POSSIBLE	OBTAINED	SIGN	MODERATED
1	INLET + JET	4			
2	VALVE BODY	2			
SUBTOTAL		6			
SECTIONAL FRONT VIEW					
1	INLET	14 $\frac{1}{2}$			
2	SEAL RING	2			
3	VALVE BODY + RETAINING RING	22			
4	JET	6 $\frac{1}{2}$			
5	FLOAT TRIGGER + PIN + PLUG	9			
SUBTOTAL		54			
BOTTOM VIEW					
1	INLET	9 $\frac{1}{2}$			
2	VALVE BODY + RETAINING RING + JET	9 $\frac{1}{2}$			
SUBTOTAL		19			
GENERAL					
1	CENTRE LINES	4			
2	SECTION A-A	3			
3	ASSEMBLY	8			
SUBTOTAL		15			
TOTAL		94			
PENALTIES (-)					
GRAND TOTAL					



**(PENALTY -2)**  
 DETAIL OF THE MARK  
 ALLOCATION SHOWING  
 TWO FACES  
**(NOT FOR DISTRIBUTION)**