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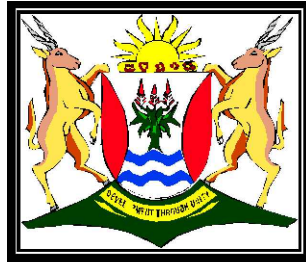
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EASTERN CAPE EDUCATION DEPARTMENT
OOS-KAAP ONDERWYSDEPARTEMENT**

NATIONAL SENIOR CERTIFICATE

GRADE 12

ENGINEERING GRAPHICS AND DESIGN P2

SEPTEMBER 2022

**PREPARATORY EXAMINATION
MARKING GUIDELINE**

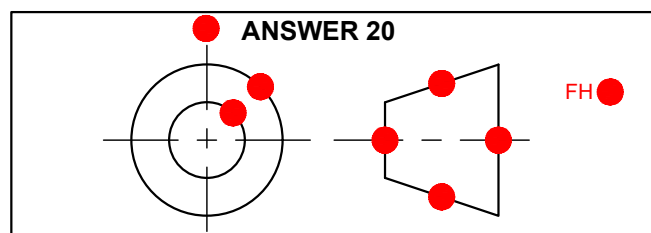
MARKS: 200

This marking guideline consists of 7 pages.

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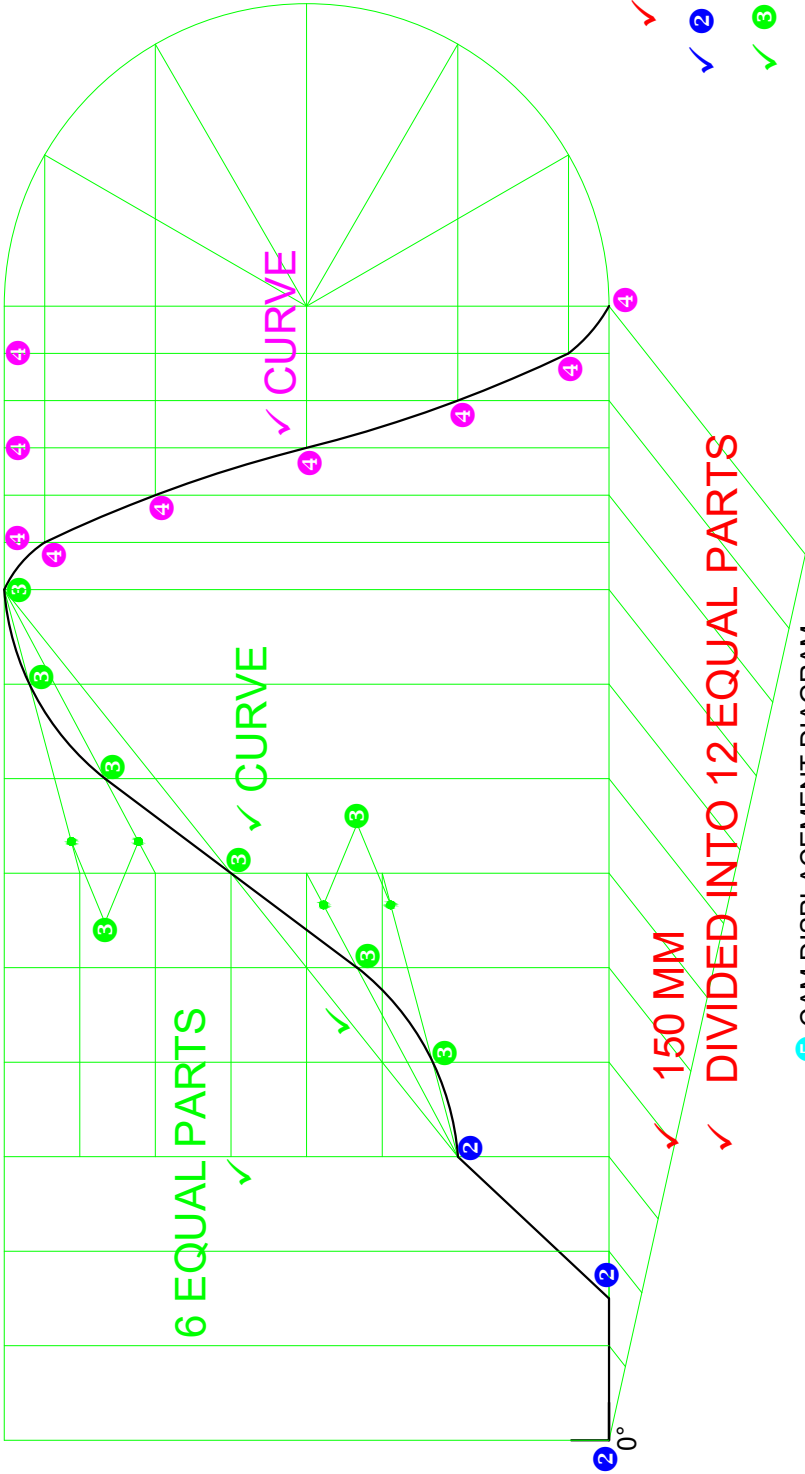
QUESTION 1: ANALYTICAL (MECHANICAL)

ANSWERS		
1	3625	1
2	CL3215.DWG	1
3	AUTOCAD 2021	1
4	NONE	1
5	NOT TO SCALE	1
6	DRIVER PINS FORMAT	1
7	Ø1	1
8	CONVENTIONAL METHOD OR CAD	2
9	37	2
10	120°	1
11	3	1
12	OIL HOLE	1
13	FULL SECTION	2
14	BOTTOM VIEW	1
15	REVOLVED SECTION	1
16	PARTIAL SECTION	1
17	GRIP	2
18	40	2
19	28 DAYS OR 1 MONTH	2
20		4
TOTAL		29



QUESTION 2.1: LOCI (CAM)

- ✓ HORIZONTAL PROJECTION
- ✓ CIRCLE + DIVIDING

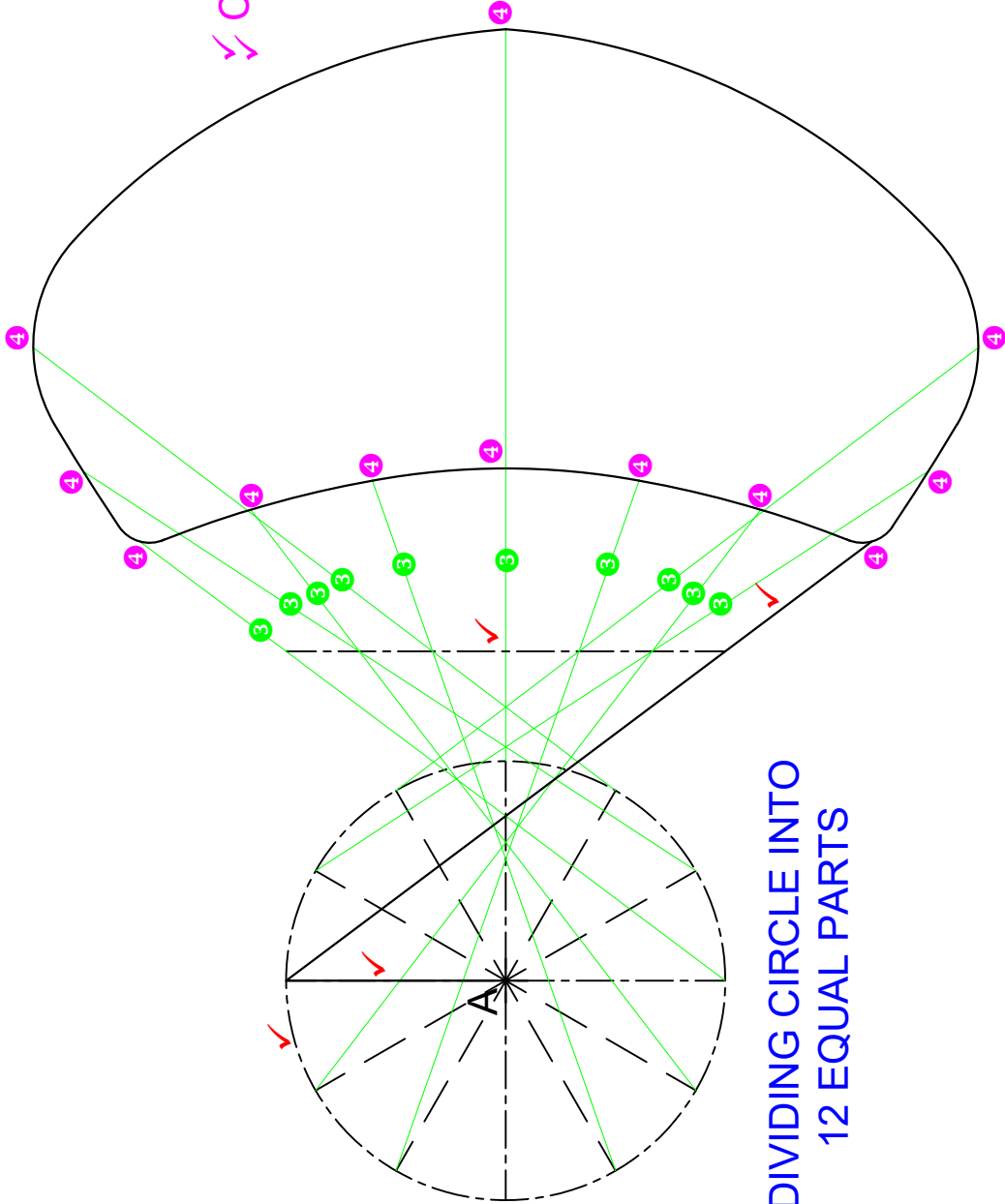


ASSESSMENT CRITERIA	
1	CONSTRUCTION
2	DWELL + UNIFORM MOTION
3	ACCELERATION AND RETARDATION
4	SIMPLE HARMONIC
5	LABEL + SCALE
SUB-TOTAL 2.1	
19	

- ✓
- ✓
- ✓
- ✓
- ✓

3

QUESTION 2.2: LOCI (MECHANISMS)



ASSESSMENT CRITERIA	
1	CONSTRUCTION OF DIAGRAM
2	CONST. OF CIRCLE IN 12 EQUAL PARTS
3	CONSTRUCTION OF LOCI
4	LOCI OF POINT E
SUB-TOTAL 2.2	
19	

1 ✓

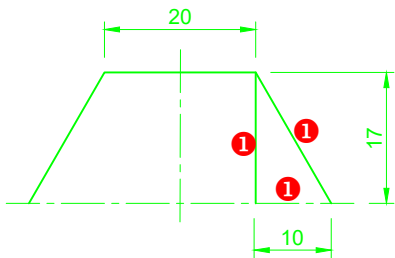
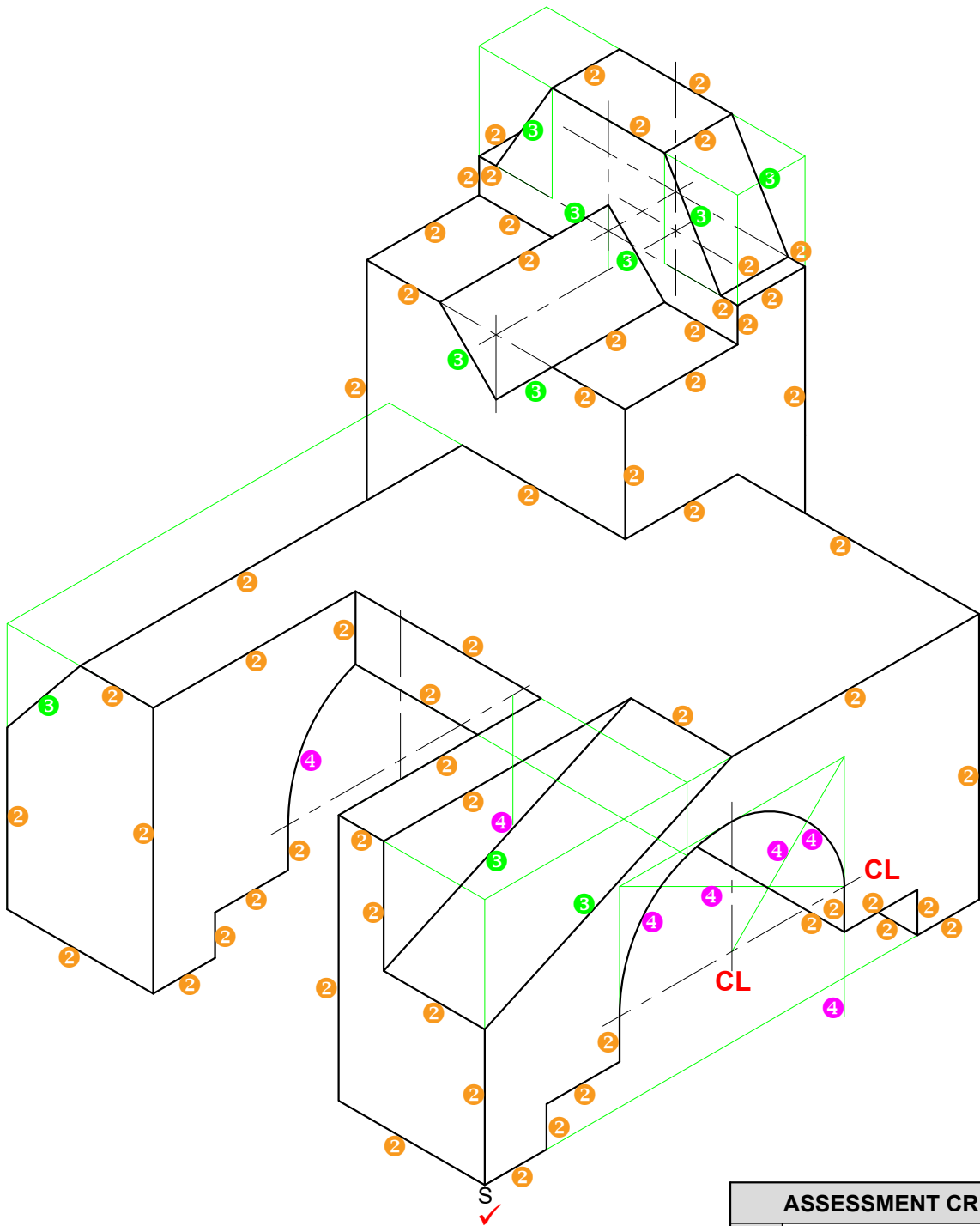
2 ✓

3 ✓

4 ✓

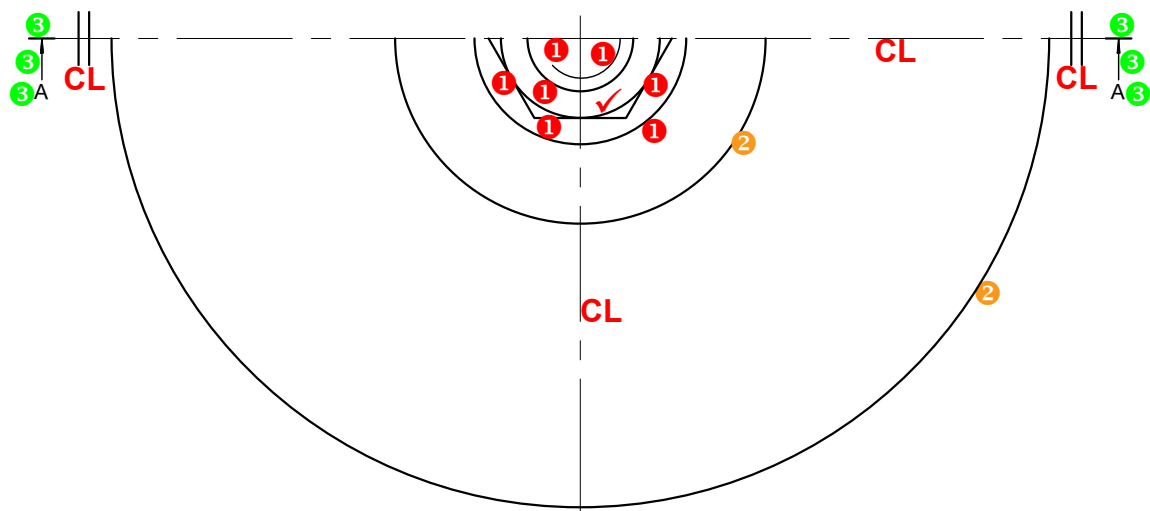
4	
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QUESTION 3: ISOMETRIC



✓ ①	1	CONSTR' + PLACEMENT	2½
	2	ISOMETRIC LINES	30
	3	NON ISOMETRIC LINES	5
	4	HALF CIRCLE + CONSTR'	3½
	CL	5	CENTRE LINES
TOTAL			42
			5

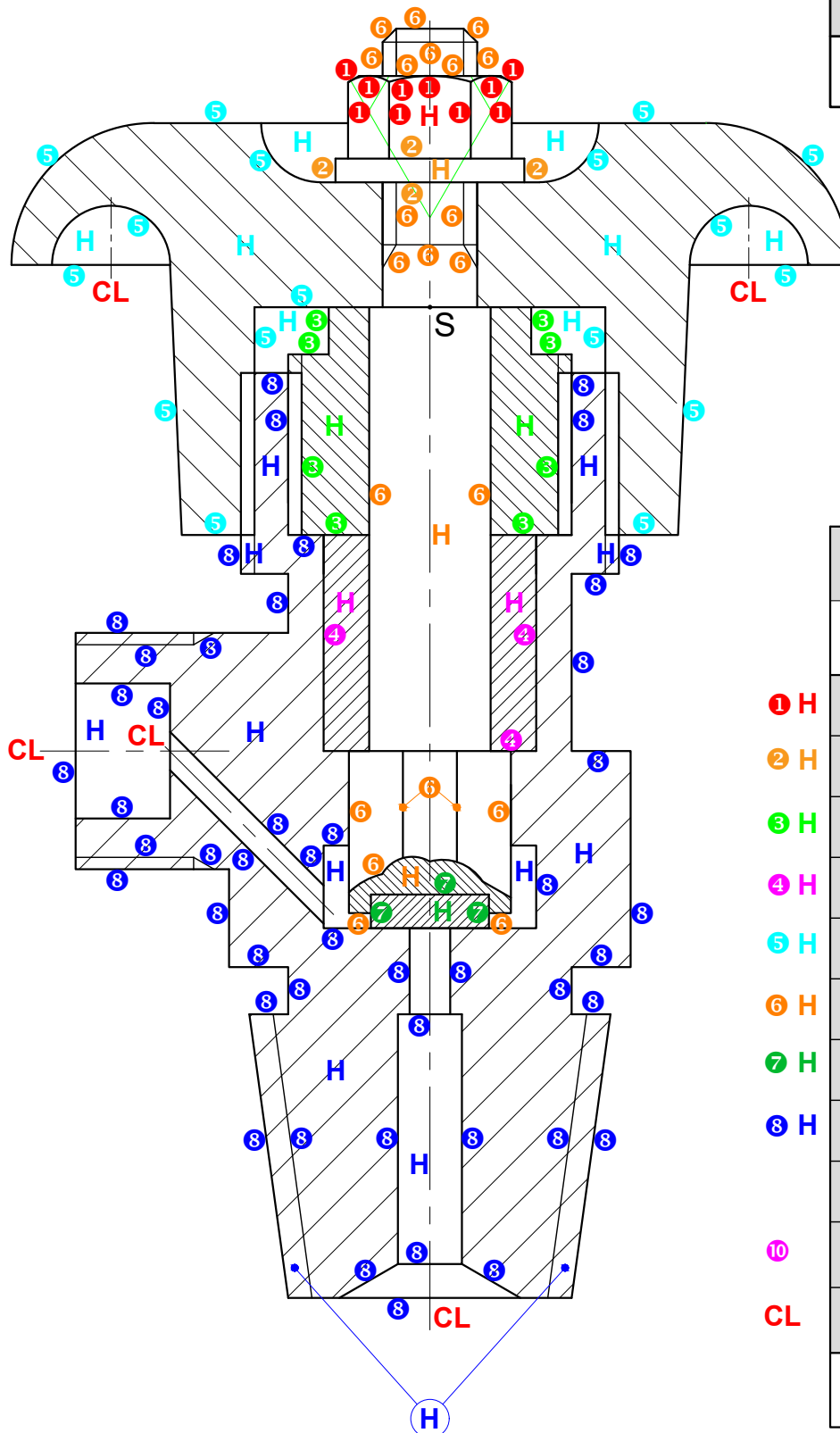
QUESTION 4: MECHANICAL ASSEMBLY TOP VIEW



ASSESSMENT CRITERIA		
TOP VIEW		
1	M14 NUT + WASHER	4½
2	HANDLE	1
3	CUTTING PLANE	3
4	CENTRE LINES + CONVEN. SYMMETRY LINES	2
SUB-TOTAL		10½
		6

QUESTION 4: MECHANICAL ASSEMBLY FULL SECTION FRONT VIEW OF CUTTING PLANE A-A

GAS VALVE 10
SCALE 1 : 1 10



PENALTIES

1	WRONG SCALE -2
2	PARTS NOT ASSEMBLED. -1 PER PART. MAX. -7.
3	WRONG HATCHING -2
TOTAL PENALTIES (-)	

ASSESSMENT CRITERIA

SECTIONAL FRONT VIEW

1 H	1	M14 NUT	5½
2 H	2	M14 WASHER	2½
3 H	3	GLAND	5
4 H	4	GLAND SEAL	2½
5 H	5	HANDLE	12½
6 H	6	SHAFT	11½
7 H	7	SEAL	2
8 H	8	HOUSING	28½
	9	ASSEMBLY	7
10	10	TITLE + SCALE	1
CL	11	CENTRE LINES	2½
SUB-TOTAL			80½

7