



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

ENGINEERING GRAPHICS AND DESIGN P2

NOVEMBER 2018

MARKING GUIDELINES

MARKS: 100

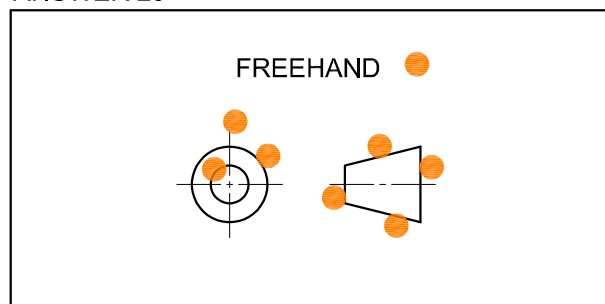
These marking guidelines consist of 7 pages.

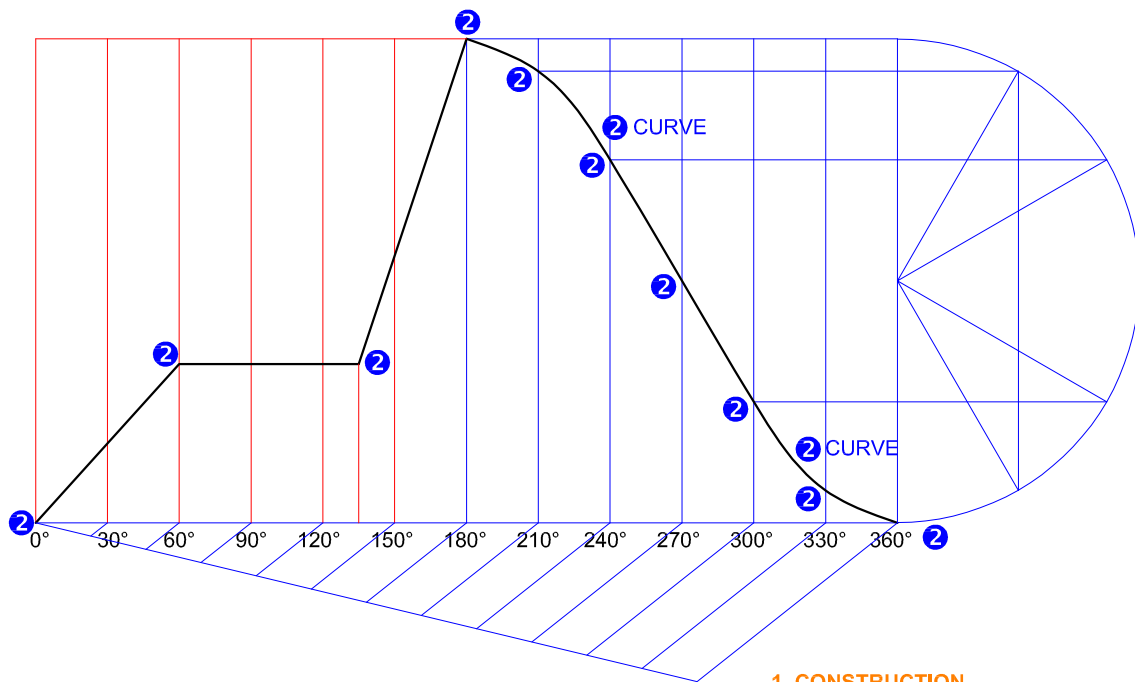
APPROVED

UMALUSI MODERATORS
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27.11.2018
27/11/2018

ANSWERS		
1	WENDY	1
2	2018-02-10	1
3	APPROVING THE DRAWING	1
4	MC 25-V2018	1
5	TUNGSTEN	1
6	8	1
7	20 °C	1
8	25 or 25,00	1
9	REPRESENTING A PART NOT THERE	1
10	SHAFT CONTINUES/PART OF SHAFT	1
11	CENTRE OF CIRCLES OR ARCS - SHAFTS - SYMMETRY - PCD - POSITION - A CUTTING PLANE - ASSEMBLY	2
12	3	1
13	FRONT VIEW	1
14	C: 139 ✓ D: Ø15,85 ✓ E: Ø18 ✓	5
15	84°	1
16	REVOLVED SECTION	1
17	PART SECTION	1
18	SUCCESSIVE SECTIONS	2
19	2,9 mm	2
20	See below	4
TOTAL		30

ANSWER 20





DISPLACEMENT GRAPH ③
SCALE: 114 mm = 360° ROTATION ③

1 CONSTRUCTION

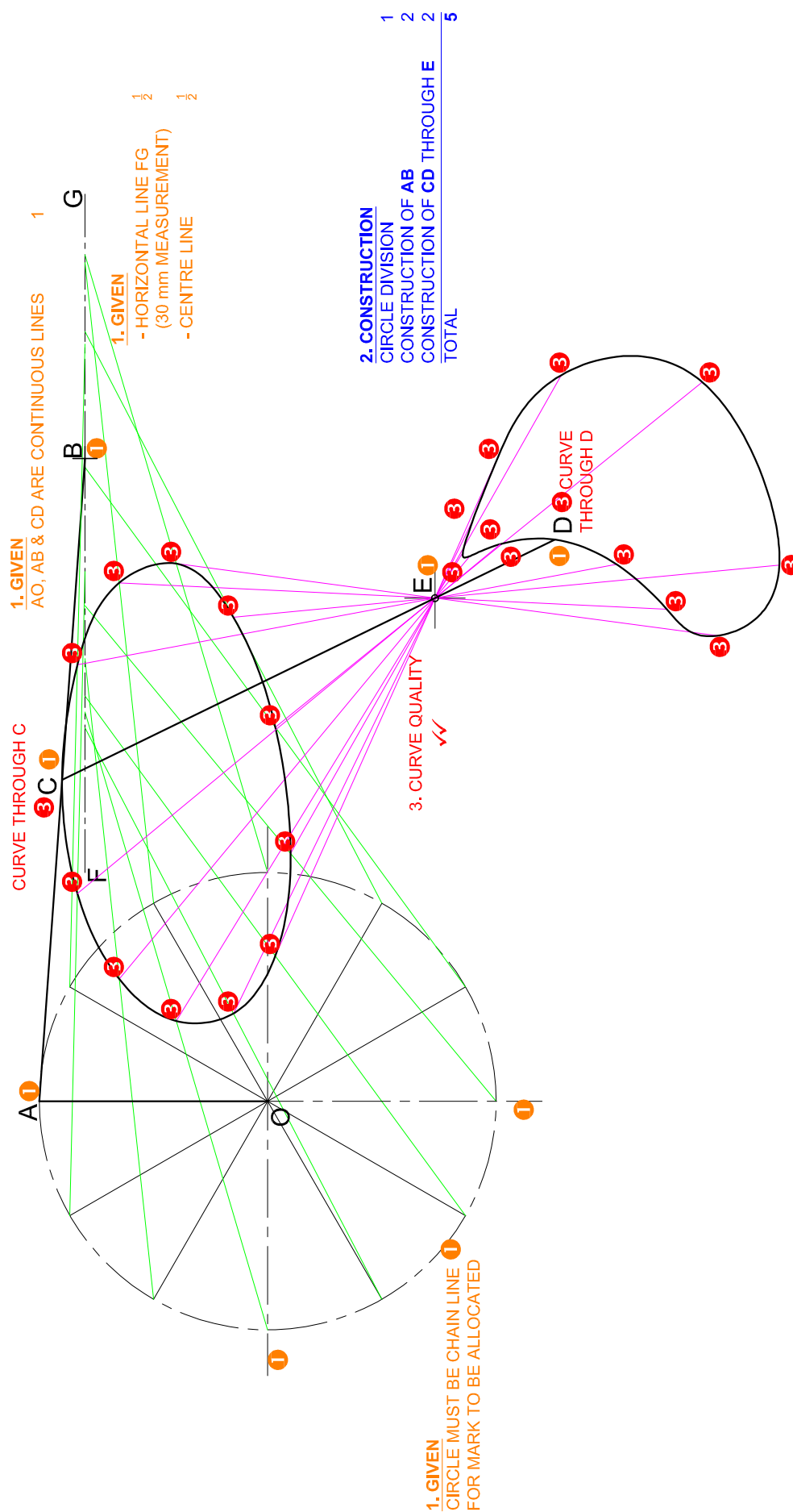
- LENGTH (114) 1
- LINE DIVISION CONSTRUCTION 1
- 114 INTO 12 EQUAL PARTS 1/2
- SIMPLE HARMONIC MOTION
- * SEMI CIRCLE 1/2
- * CIRCLE DIVISION 1/2
- * HORIZONTAL PROJECTION 1/2

TOTAL

4

PAPER 2 QUESTION 2.1
GRADE 12
NOVEMBER 2018
MARKING GUIDELINE

ASSESSMENT CRITERIA 2.1		
1	CONSTRUCTION	4
2	POINTS + CURVE	6
3	LABELS	1
PENALTIES (-)		
SUBTOTAL		11



ASSESSMENT CRITERIA 2.2		
1	GIVEN	6
2	CONSTRUCTION	5
3	POINTS + CURVE	14
TOTAL		25

PAPER 2 QUESTION 2.2
GRADE 12
NOVEMBER 2018
MARKING GUIDELINE

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Please turn over

AB
→
B
my

✓✓✓4 CIRCLE CONSTRUCTION/ PROJECTION

✓4 FOR ALL CENTRE LINES

✓1 CORRECT PLACEMENT

1✓

PAPER 2 QUESTION 3
GRADE 12
NOVEMBER 2018
MARKING GUIDELINE

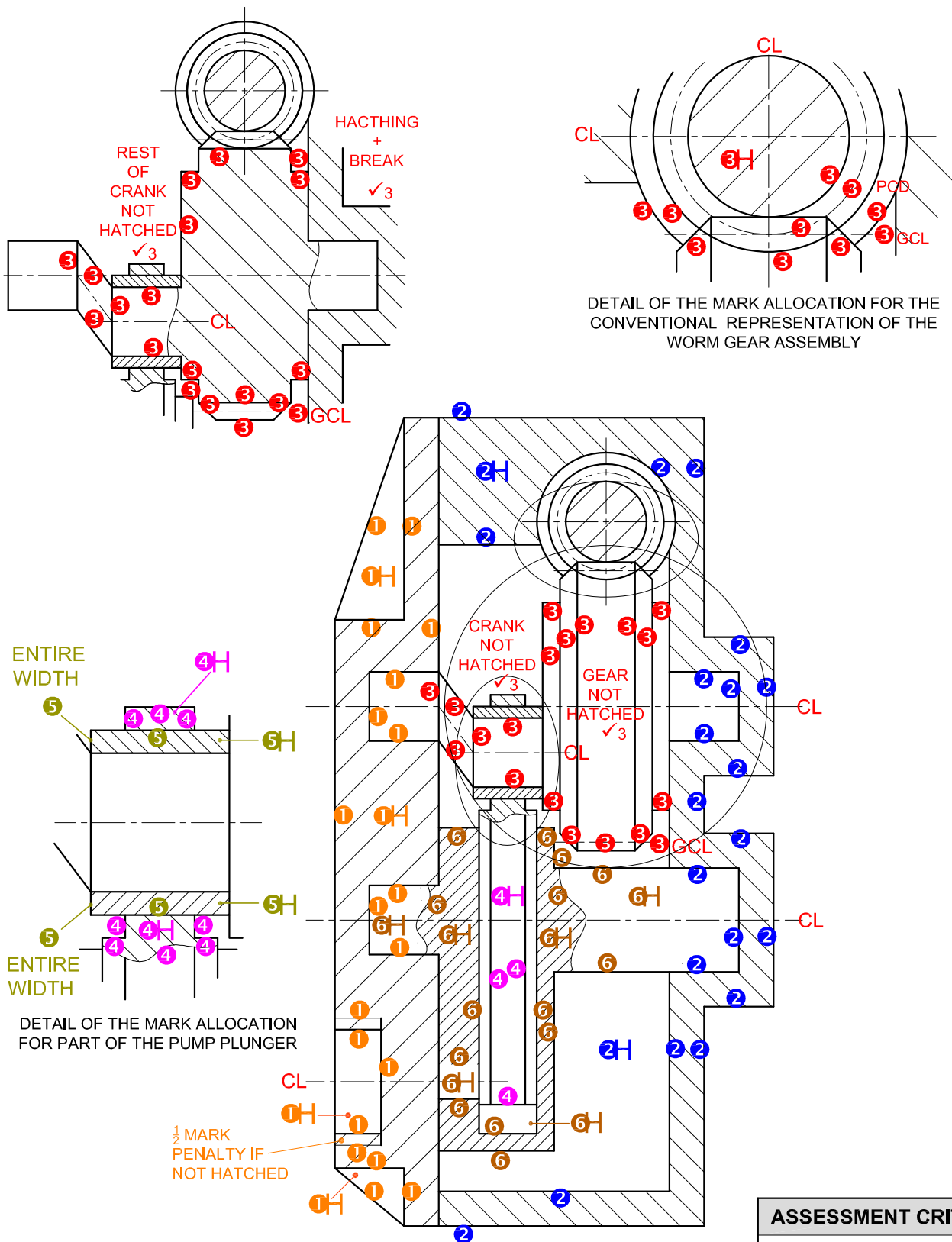
ASSESSMENT CRITERIA		
1	PLACEMENT + AUX. VIEW	2
2	FRONT PORTION	22½
3	BACK PORTION	5
4	CIRCLE +CIRCLE CONSTRUCTION + CL	8½
TOTAL		38

4 HEIGHT

DETAIL OF THE MARK ALLOCATION FOR THE BOLT

PAPER 2 QUESTION 4
GRADE 12
NOVEMBER 2018
MARKING GUIDELINE

ASSESSMENT CRITERIA		
FRONT VIEW		
1	COVER PLATE	8
2	PUMP BODY + BUSH	5
3	WORM SHAFT	$2\frac{1}{2}$
4	M14 RETAINING BOLT	$4\frac{1}{2}$
SUBTOTAL		20



PAPER 2 QUESTION 4
GRADE 12
NOVEMBER 2018
MARKING GUIDELINE