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

ENGINEERING GRAPHICS AND DESIGN P2

MAY/JUNE 2025

MARKING GUIDELINES

MARKS: 100

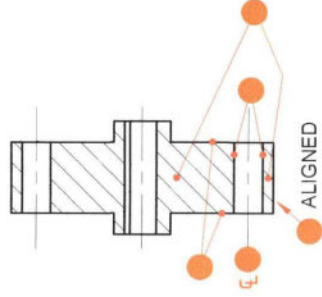
These marking guidelines consist of 7 pages.

ANSWERS

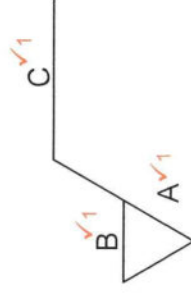
1	SAMANTHA	1
2	CLAMPIT TOOLS CC	1
3	AutoCAD 2024	1
4	THIRD-ANGLE ORTHOGRAPHIC / TAOP	1
5	MILD STEEL	1
6	2	1
7	860°	1
8	TOP VIEW	1
9	DETAIL T	1
10	A: R2 B: 9 C: R7 D: Ø122 E: 70	5
11	ROUNDING	1
12	BOLT	1
13	R63	1
14	REVOLVED SECTION	1
15	PART SECTION	1
16	SITE WELD / FIELD WELD	1
17	25 = LENGTH 75 = PITCH	2
18	MAXIMUM: 40,23 MINIMUM: 39,9	2
19	See below	3
20		3
TOTAL		30

ANSWER 19

● FREEHAND



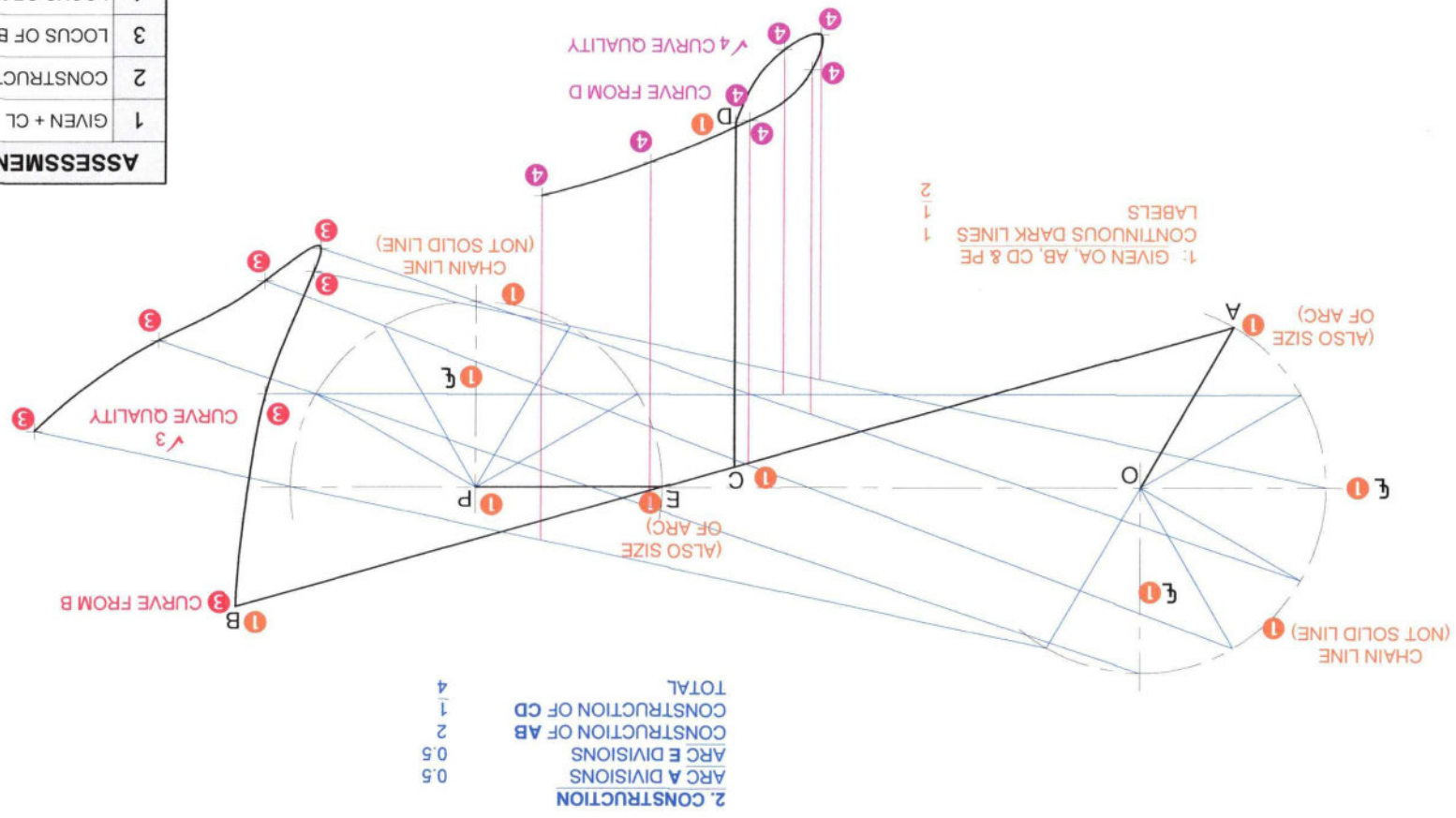
ANSWER 20



PAPER 2 QUESTION 1
GRADE 12
DBE MAY/JUNE 2025
MARKING GUIDELINES

PAPER 2 QUESTION 2.1
GRADE 12
DBE MAY/JUNE 2025
MARKING GUIDELINES

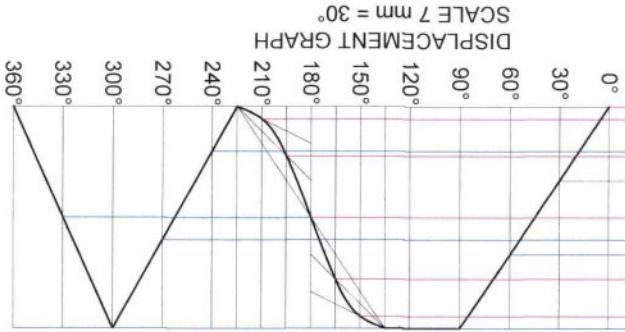
ASSESSMENT CRITERIA 2.1			
1	GIVEN + CL	7 1/2	4
2	CONSTRUCTION	4	4 1/2
3	LOCUS OF B	4 1/2	4 1/2
4	LOCUS OF D	4 1/2	4 1/2
SUBTOTAL		20 1/2	



PAPER 2 QUESTION 2.2
DBE MAY/JUNE 2025
GRADE 12
MARKING GUIDELINES

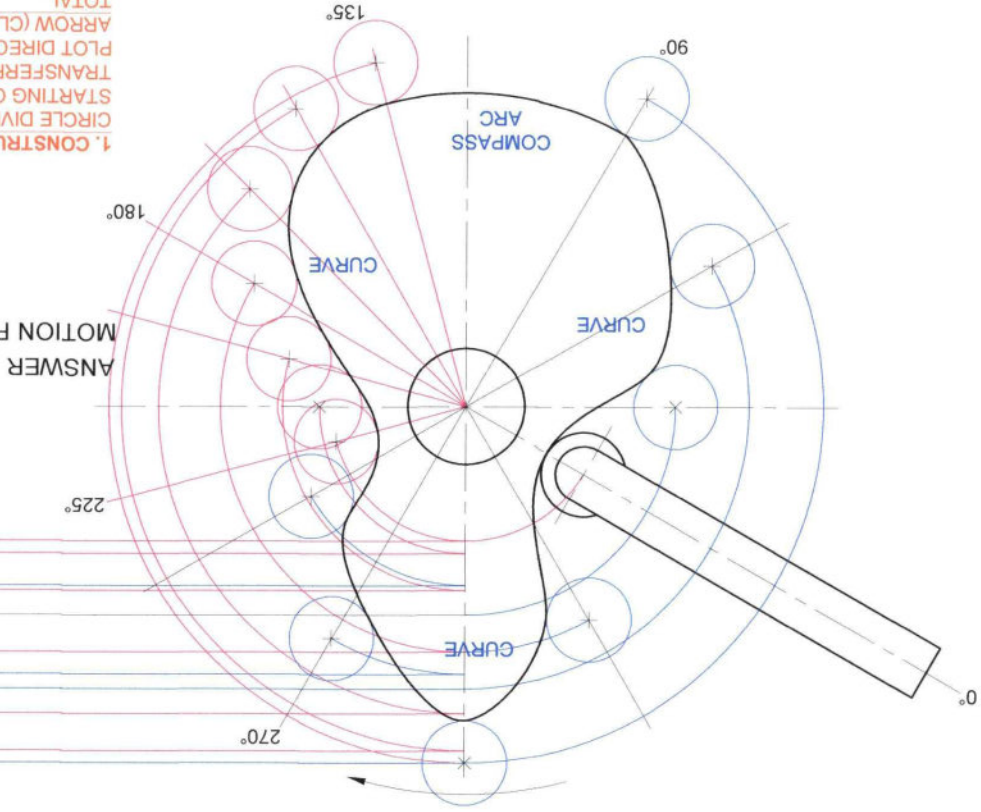
ASSESSMENT CRITERIA 2.2			
1	CONSTRUCTION	5	
2	CAM PROFILE	13 ¹ / ₂	
3	TYPE OF MOTION	1	
SUBTOTAL		19 ¹ / ₂	

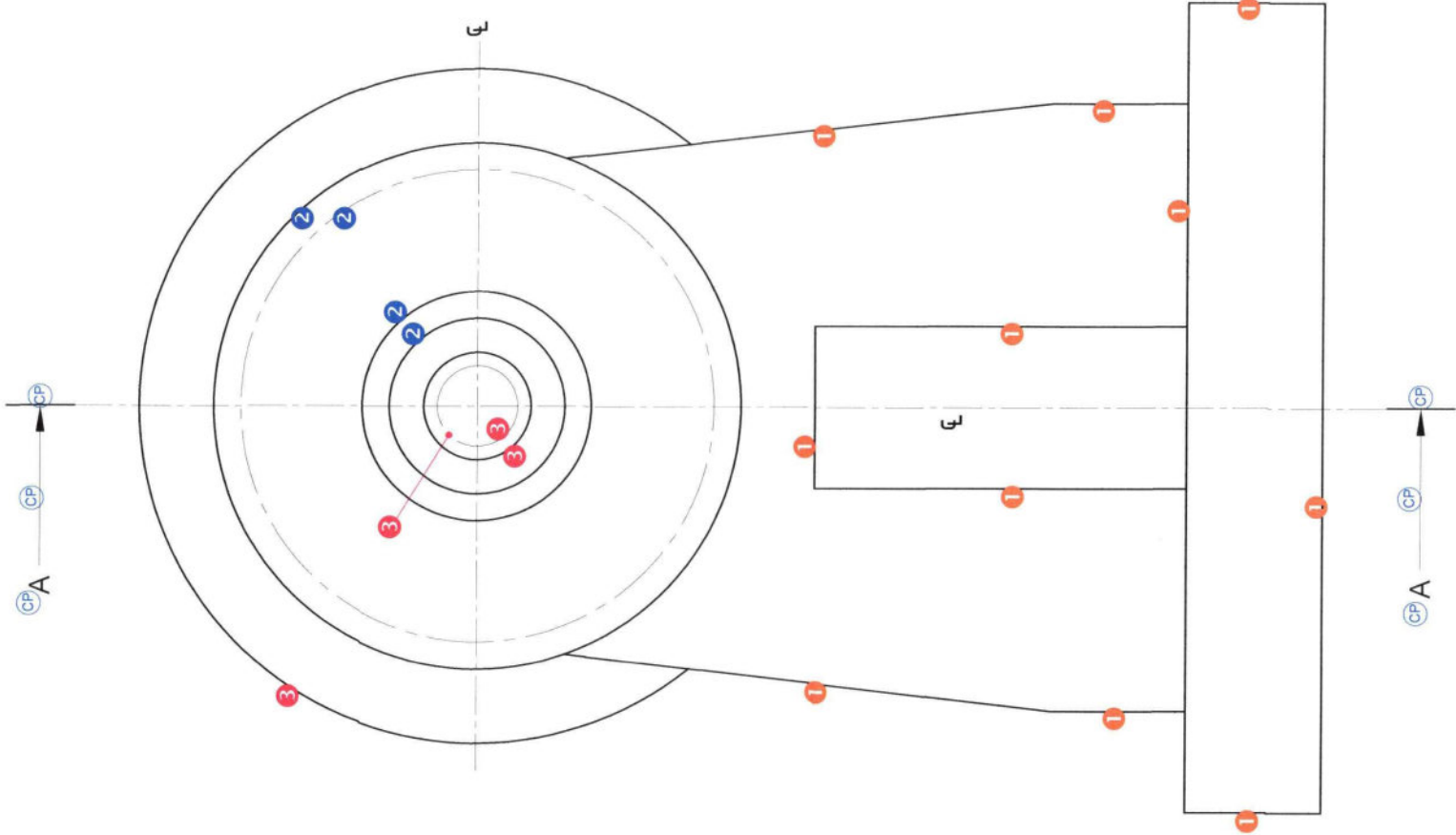
✓ 3 UNIFORM ACCELERATION AND RETARDATION



1. CONSTRUCTION
CIRCLE DIVISION
STARTING ON ROLLER-FOLLOWER AS 0°
TRANSFERRING FROM GRAPH
PLOT DIRECTION (ANTI-CLOCKWISE)
ARROW (CLOCKWISE)
TOTAL
5
1
1
1
1
1

2. CAM PROFILE
PLOTTED CENTRE POINTS (14 x 0.5)
7
Ø12 ROLLERS
(1 - 5 = 0.5, 6 - 9 = 1, 10 - 12 = 1.5, 13 + 14 = 2)
2
POINTS OF TANGENCY
(1 - 5 = 0.5, 6 - 9 = 1, 10 - 12 = 1.5, 13 + 14 = 2)
2
POINTS OF TANGENCY TO GIVEN ROLLER
0.5
2
CURVES AND ARC QUALITY
2
TOTAL
13.5





1. CENTRE LINES (CL)
SANS COMPLIANT
CENTRE LINES (1 - 2 = 0.5; 3 - 4 = 1)

RIGHT VIEW			
1	BRACKET + BASE PLATE	5	1 2
2	GEAR + CL	2	
3	PULLEY + SHAFT	2	
SUBTOTAL		9	1 2

PAPER 2 QUESTION 4
GRADE 12
DBE MAY/JUNE 2025
MARKING GUIDELINE

Orthographic projection of a mechanical assembly showing a front view and a top view. The front view includes dimension lines for heights (H1-H8), diameters (φ), and hatching for sectioned areas. Numbered callouts 1-8 point to specific components. The top view shows the circular base and internal features. A detail view of a gear tooth is shown at the bottom left.

3. ASSEMBLY
1 MARK FOR EVERY COMPONENT CORRECTLY ASSEMBLED (11 PARTS - 1) = 10

SECTIONAL FRONT VIEW	
1	BASE
2	BRACKET + RIB
3	PULLEY
4	SHAFT
5	BUSH + KEY + SPACER
6	SPUR GEAR
7	M20 NUT + WASHER
8	M20 BOLT
SUBTOTAL	
65 ¹ / ₂	

PAPER 2 QUESTION 4
GRADE 12
DBE MAY/JUNE 2025
MARKING GUIDELINE