

# basic education

Department:  
Basic Education  
REPUBLIC OF SOUTH AFRICA

## NATIONAL SENIOR CERTIFICATE

GRADE 12

ENGINEERING GRAPHICS AND DESIGN P2

NOVEMBER 2011

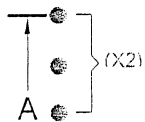
**POSSIBLE ANSWERS**

MARKS: 100

This memorandum consists of 6 pages.

ANSWERS		
1	2011/07/24	1/2
2	A MOKOENA	1/2
3	SCALE 1 : 2	1/2
4	N BOOTH	1/2
5	3	1/2
6	REMOVE WASHER	1/2
7	4	1
8	0,8	1
9	THREAD/SCREW THREAD	1
10	THREADED PIN	1
11	CIRCLE/CYLINDRICAL	1
12	FULL SECTION/REMOVED SECTION	1
13	M73	1
14	8	1
15	RIGHT VIEW	1
16	A. A/F97    B. A/F79    C. 16    D. 30    E. Ø50	5
17		3
18		2
19		4
20		4

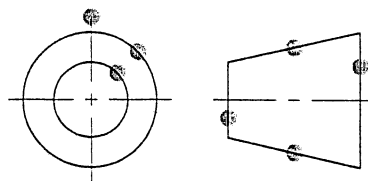
ANSWER 17



TOTAL: 30

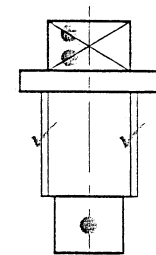
ANSWER 19

● FREEHAND



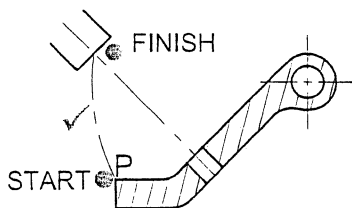
SYMBOL

ANSWER 20



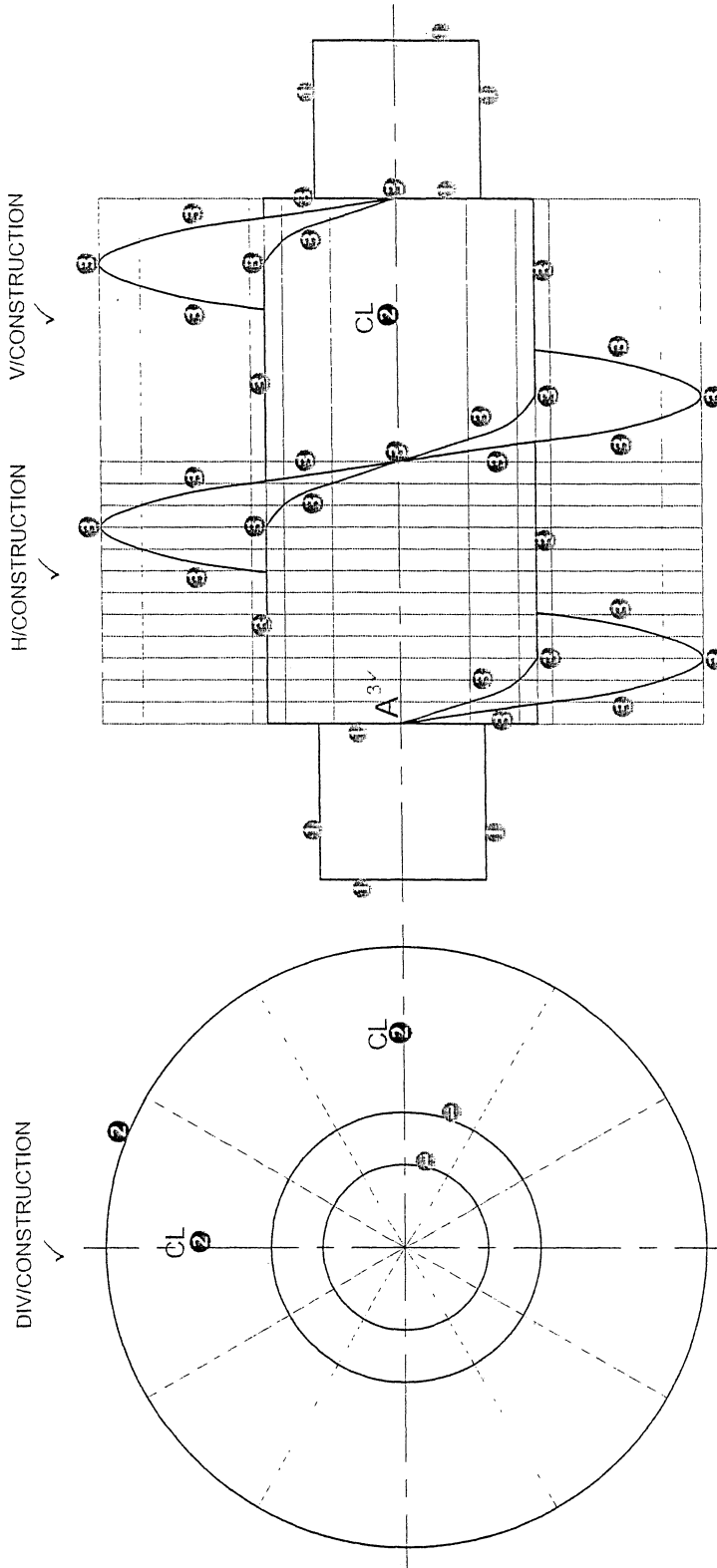
● FREEHAND

ANSWER 18



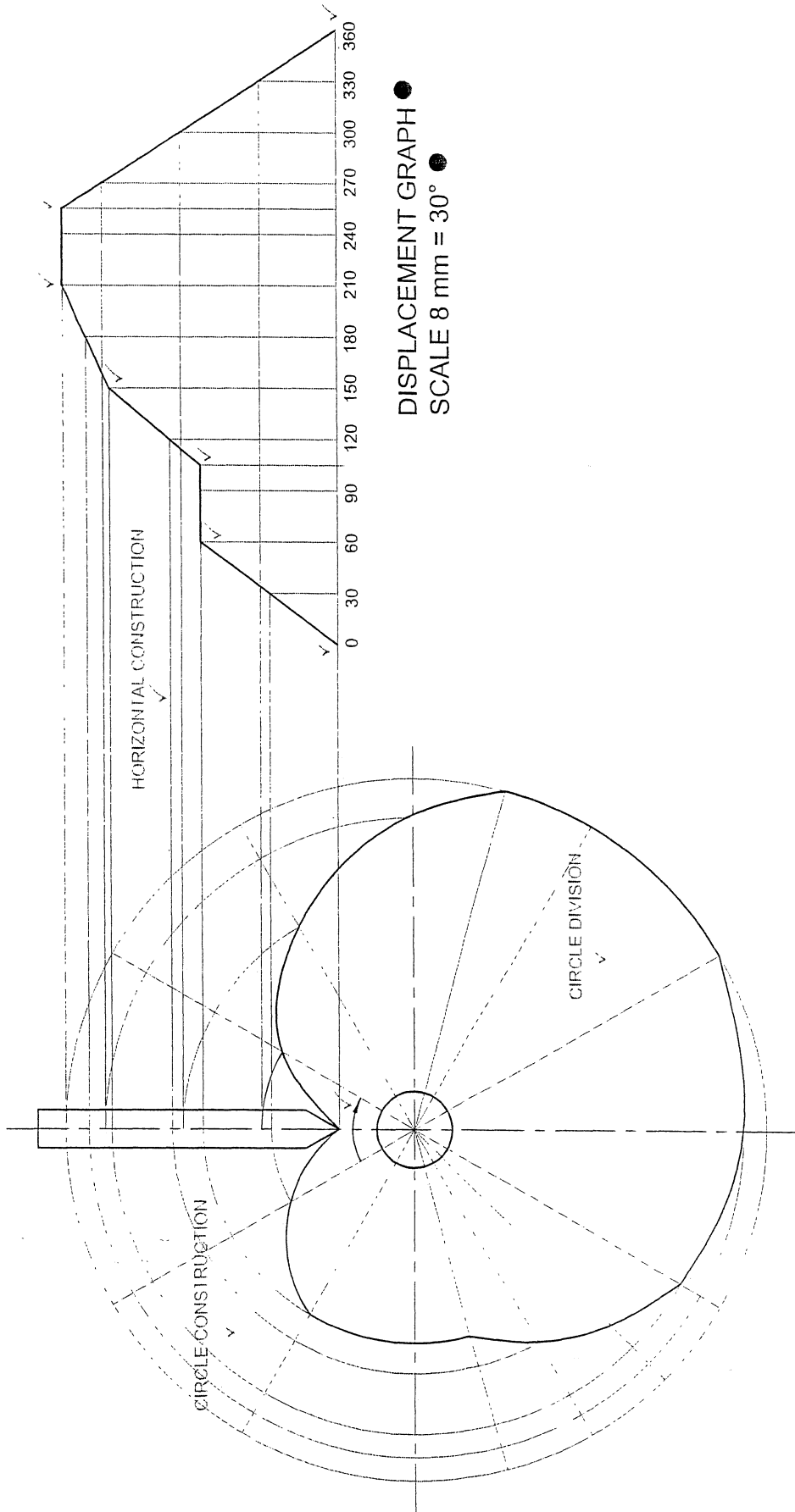
PAPER 2 QUESTION 1  
GRADE 12  
NOVEMBER 2011  
MEMORANDUM

RIGHT-HAND TURN ✓

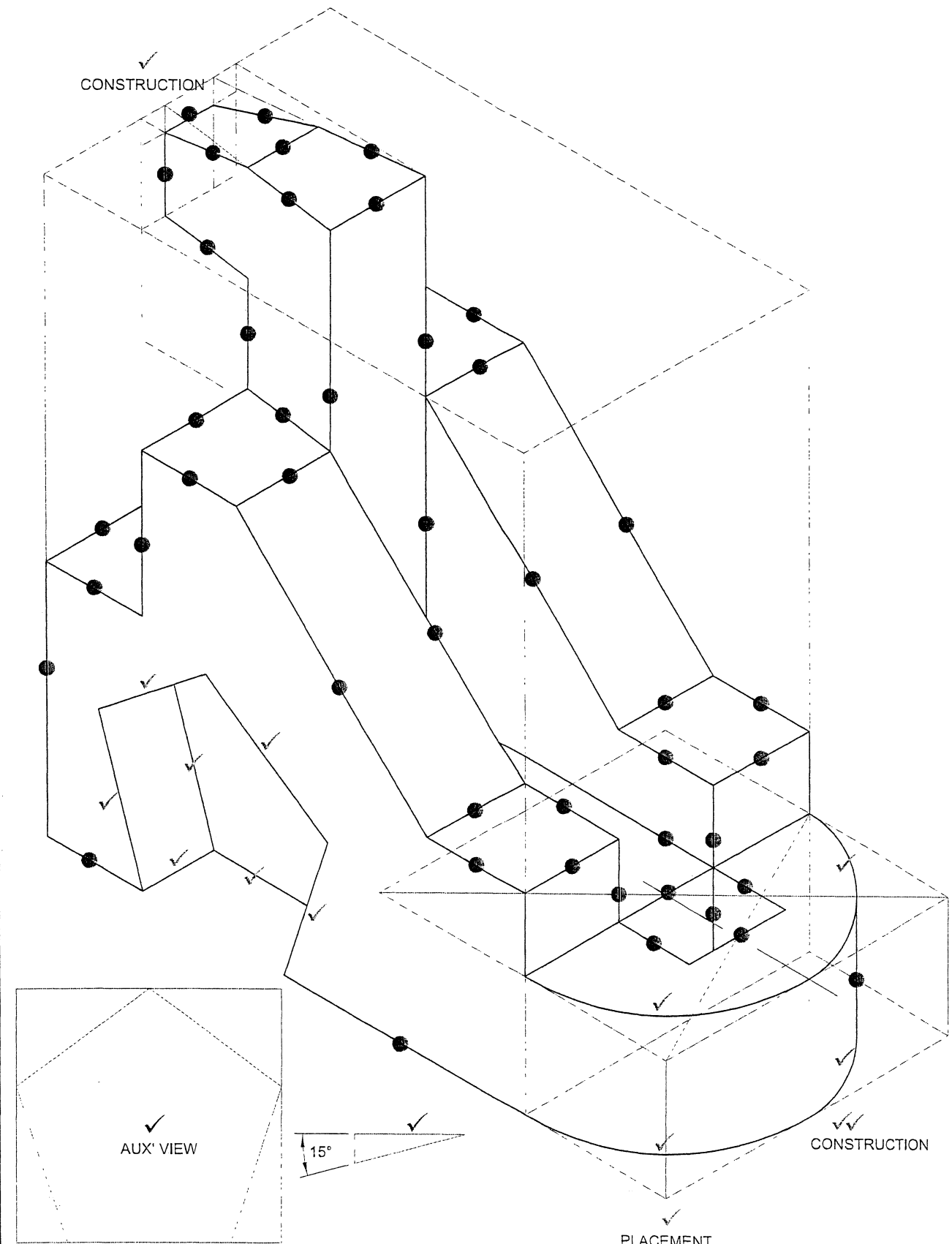


ASSESSMENT CRITERIA	
1. GIVEN	5
2. CENTRE LINES + CONSTR	5
3. HELIX/AUGER	17
<b>SUBTOTAL</b>	<b>27</b>

PAPER 2 QUESTION 2.1  
 GRADE 12  
 NOVEMBER 2011  
 MEMORANDUM

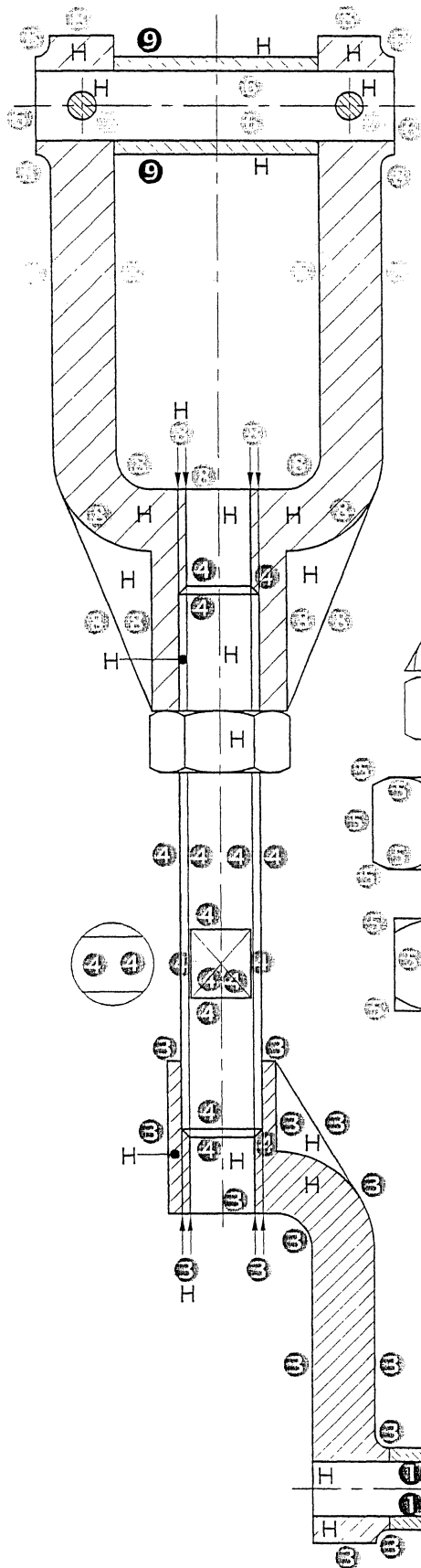


ASSESSMENT CRITERIA	
DISPLACEMENT GRAPH	7
CONSTRUCTION	3
LABELS + ARROW	2
<b>SUBTOTAL</b>	<b>12</b>
<b>TOTAL</b>	<b>39</b>

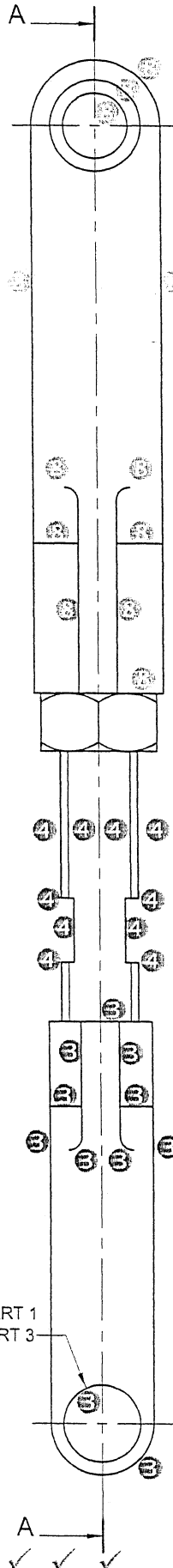


ASSESSMENT CRITERIA	
AUXILIARY VIEWS + CIRCLE CONSTRUCTION + PLACE	6
ISO' ARCS + PENTAGONAL HOLE	11
ISO' + NON-ISO' LINES	23
<b>TOTAL</b>	<b>40</b>

PAPER 2 QUESTION 3  
 GRADE 12  
 NOVEMBER 2011  
 MEMORANDUM



SECTION A-A ✓✓



**SECTIONAL FRONT VIEW**

1	SHAFT A	2
2	BUSH A	1
3	OFFSET ARM	7½
4	TIE ROD	9
5	M12 NUT	8
6	SHAFT B	2
7	DOWEL	1
8	FORK	10½
9	BUSH B	1
H	HATCHING	12
<b>SUBTOTAL</b>		<b>54</b>

**RIGHT VIEW**

3	OFFSET ARM	5½
4	TIE ROD	5
5	M12 NUT	4½
8	FORK	6
<b>SUBTOTAL</b>		<b>21</b>

**GENERAL**

1	CENTRE LINES	4
2	CUTTING PLANE + TITLE	5
3	ASSEMBLY	7
<b>SUBTOTAL</b>		<b>16</b>
<b>TOTAL</b>		<b>91</b>

MARK PART 1 WITH PART 3

1/2 MARK FOR EACH COMPONENT CORRECTLY ASSEMBLED

