



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

ENGINEERING GRAPHICS AND DESIGN P2

FEBRUARY/MARCH 2014

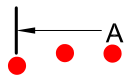
MEMORANDUM

MARKS: 100

This memorandum consists of 5 pages.

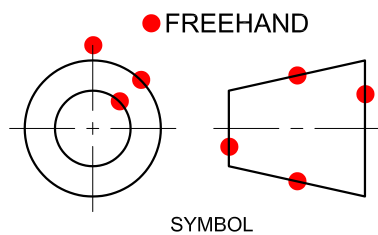
ANSWERS		
1	18000	1
2	ALUMINIUM	1
3	562 CB - SS.dwg	1
4	2013/10/12	1
5	GAUTENG	1
6	CENTRE LINE / CHAIN LINE	1
7	ROUND	1
8	32 mm	1
9	WEB/RIB	1
10	2,5 mm	1
11	70	1
12	60°	1
13	FULL	1
14	16	1
15	PITCH CIRCLE DIAMETER	1
16	6	1
17	CIRCULAR (C)	2
18	(See below.)	3
19	A. Ø76 B. 64 PCD C. M14 D. 10 E.16	5
20	(See below.)	4
TOTAL		30

18

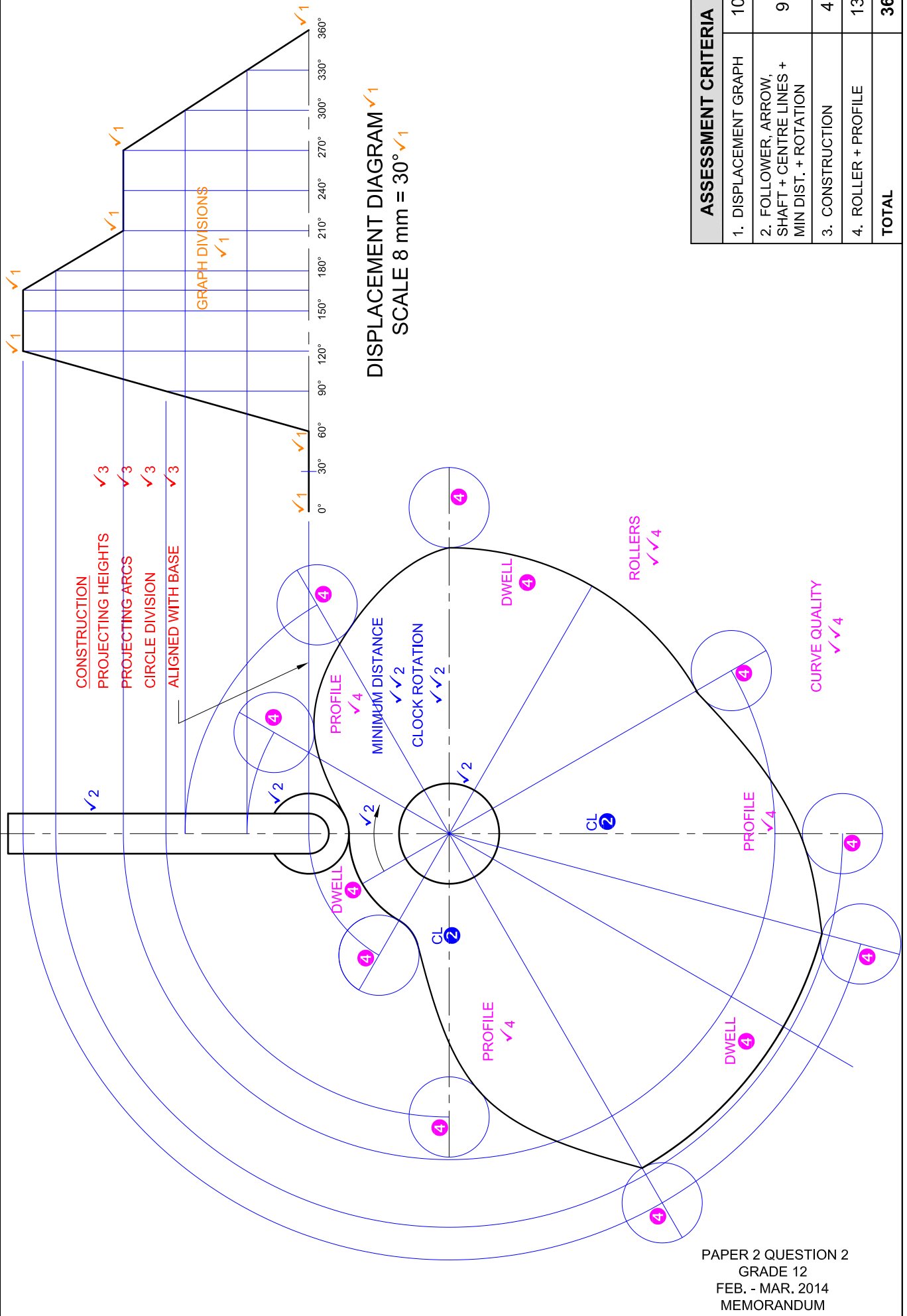


(● X 2) = 3

20

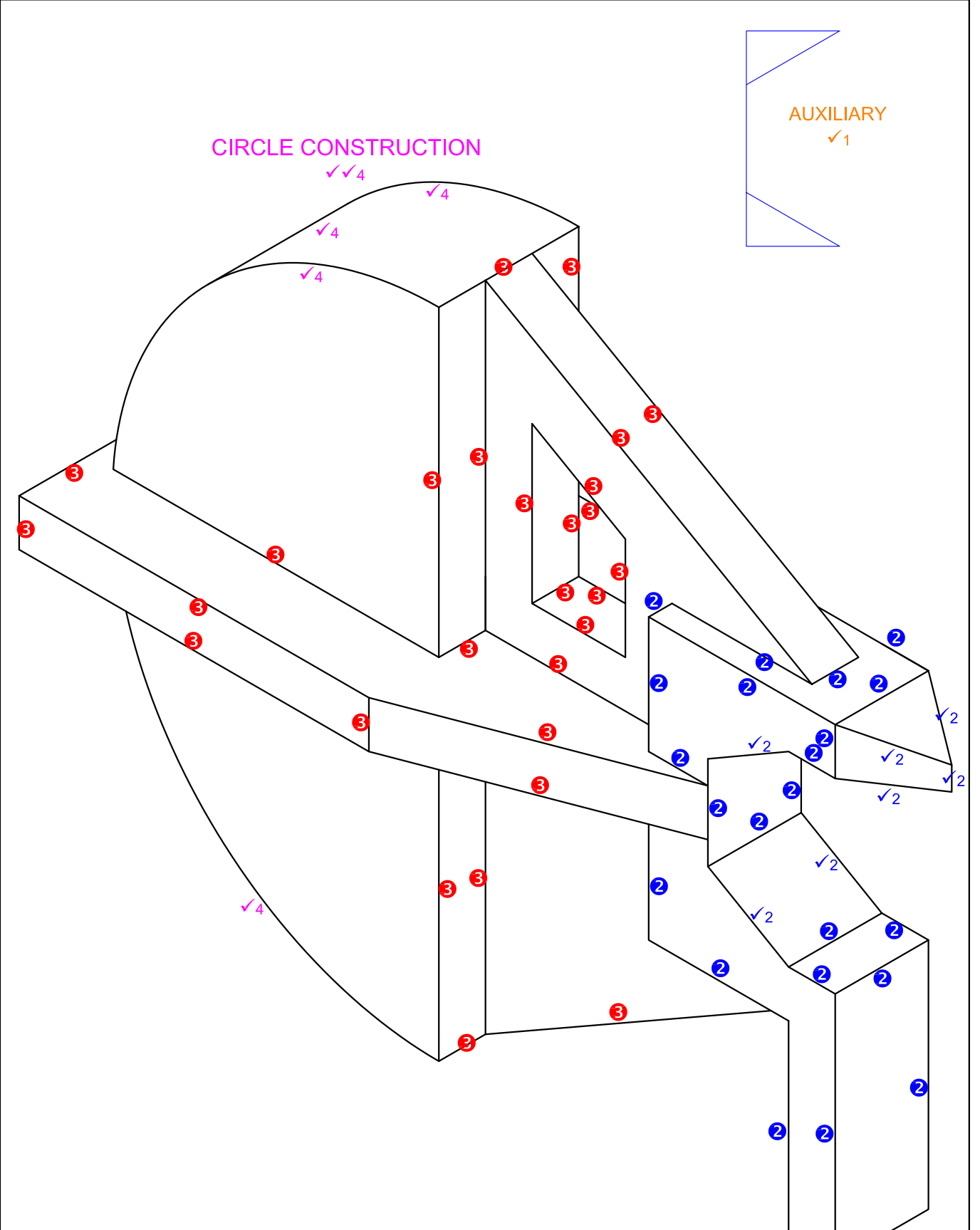


PAPER 2 QUESTION 1
 GRADE 12
 FEB. - MAR. 2014
 MEMORANDUM



ASSESSMENT CRITERIA	
1. DISPLACEMENT GRAPH	10
2. FOLLOWER, ARROW, SHAFT + CENTRE LINES + MIN DIST. + ROTATION	9
3. CONSTRUCTION	4
4. ROLLER + PROFILE	13
TOTAL	36

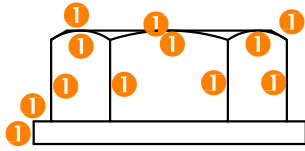
PAPER 2 QUESTION 2
GRADE 12
FEB. - MAR. 2014
MEMORANDUM



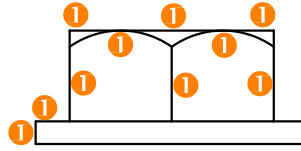
ASSESSMENT CRITERIA		
1	AUX. + PLACEMENT	2
2	FRONT	19
3	MIDDLE	14
4	CONSTR. + CIRCLE	6
TOTAL		41

S
PLACING
✓1

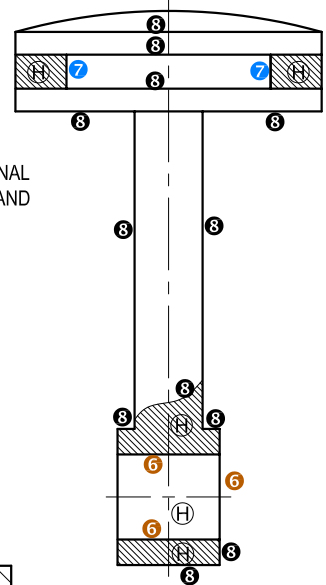
PAPER 2 QUESTION 3
GRADE 12
FEB. - MAR. 2014
MEMORANDUM



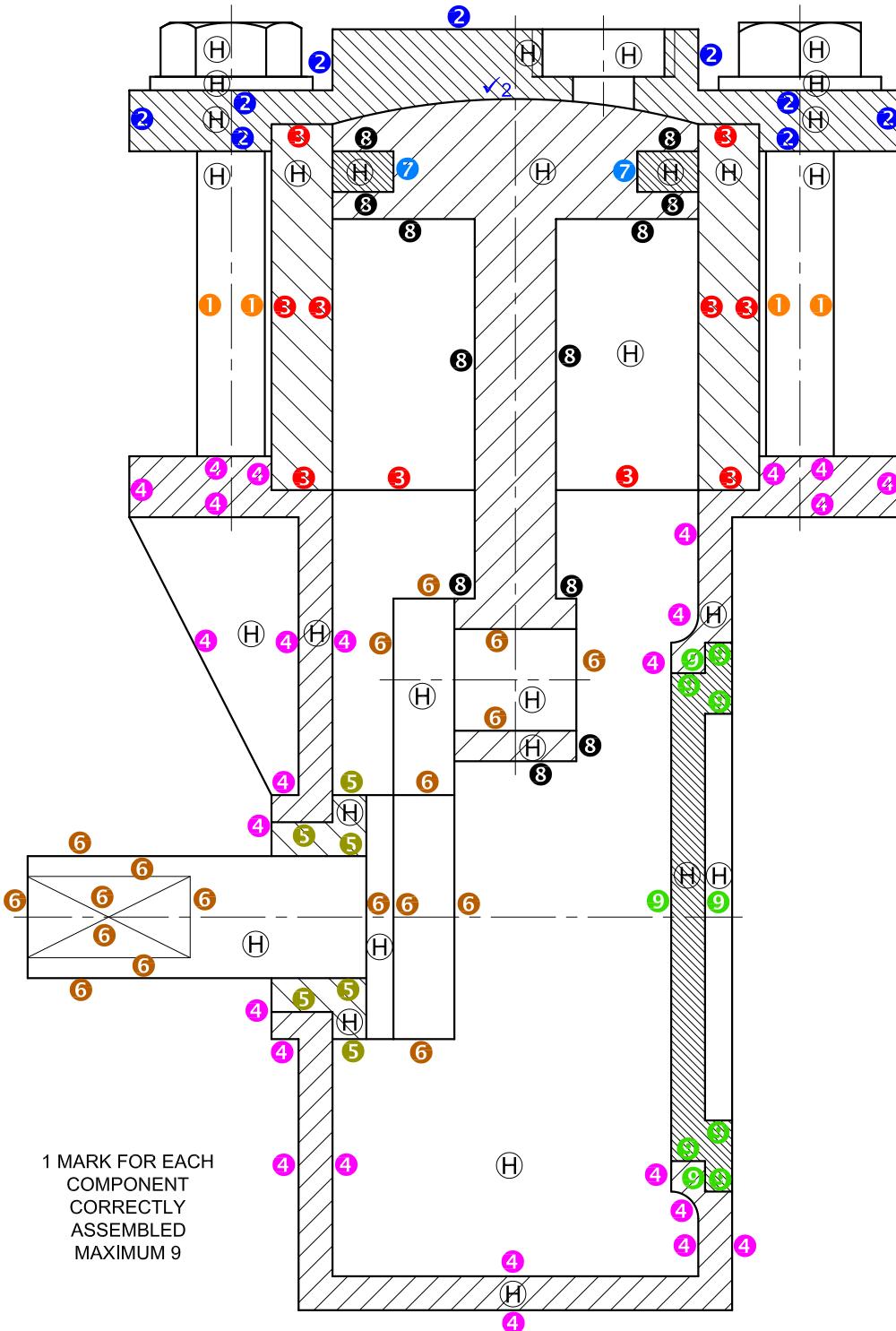
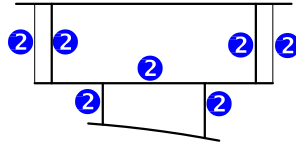
MARK ALLOCATION FOR THE HEXAGONAL BOLT HEADS SHOWING THREE FACES AND THE WASHER.



MARK ALLOCATION FOR THE HEXAGONAL BOLT HEADS SHOWING TWO FACES AND THE WASHER.



ALTERNATIVE PRESENTATION OF THE PISTON SHOWING THE REDISTRIBUTION OF MARKS (ASSESSMENT CRITERIA 8)



1 MARK FOR EACH COMPONENT CORRECTLY ASSEMBLED MAXIMUM 9

ASSESSMENT CRITERIA		
SECTIONAL FRONT VIEW		
1	M12 BOLT + WASHER	15
2	CYLINDER HEAD	9
3	CYLINDER	5
4	CRANK CASE	13
5	BUSH	3
6	CRANK SHAFT	9
7	PISTON RING	1
8	PISTON	6
9	CRANK CASE COVER	5
H	HATCHING	15
SUBTOTAL		81
GENERAL		
1	CENTRE LINES	3
2	ASSEMBLY	9
SUBTOTAL		12
TOTAL		93

PAPER 2 QUESTION 4
 GRADE 12
 FEB. - MAR. 2014
 MEMORANDUM