UNIVERSITY OF JOHANNESBURG

PROGRAM	:	BACCALAUREUS INGENERIAE **MECHANICAL ENGINEERING**
SUBJECT	:	**Graphical Communication 1A**
CODE	:	**GKM 1A11 and GKMEEA1**
DATE	:	Exam (28 May 2019)
DURATION	:	(1-PAPER) 3 Hours
WEIGHT	:	50 : 50
TOTAL MARKS	:	100

EXAMINER	:	DR F F PIETERSE
MODERATOR	:	PROF RF LAUBSCHER
NUMBER OF PAGES	:	2 PAGES A4 AND 1 PAGE A3
INSTRUCTIONS REQUIREMENTS	:	ANSWER ON A3 PAPER PROVIDED

INSTRUCTIONS TO CANDIDATES:

PLEASE ANSWER ALL THE QUESTIONS.

QUESTION 1: *(60)*

Given: *Figure 1 show a hydraulic component.*

Question: Draw a detail (working) drawing of the hydraulic component in third angle projection *by using:*

1. *Scale 1:1,*
2. *Full-section front view* ***A-A*** *(section through hole and thread centre), a Right view and a Top view.*
3. *Add projection symbol and all dimensions according to SANS 0111 specifications to be able to manufacture the component.*

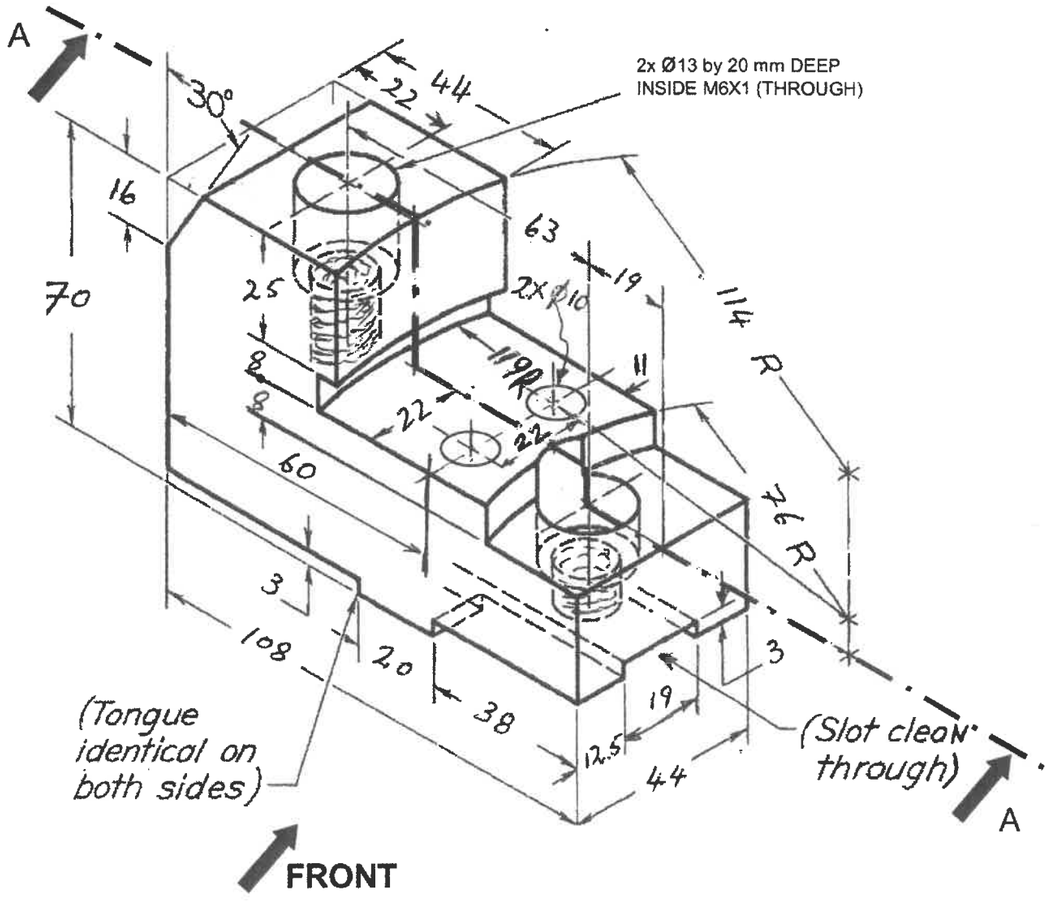

Figure1

QUESTION 2: ***(16)***

Show the intersection between triangles ABC and MNO as well as the correct visibility. This problem must be solved using the projection (cutting plane) method.

QUESTION 3: ***(10)***

Draw an edge view and true size of the triangle ABC. Determine the area of the triangle ABC if it is assumed that a scale 1: 2 is used.

QUESTION 4: ***(4)***

Determine the piercing points and visibility of the line 1-2 on the primed ABCDO by using the projection method.

QUESTION 5: ***(10)***

Determine the dihedral angle between planes ABC and CBD.

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1

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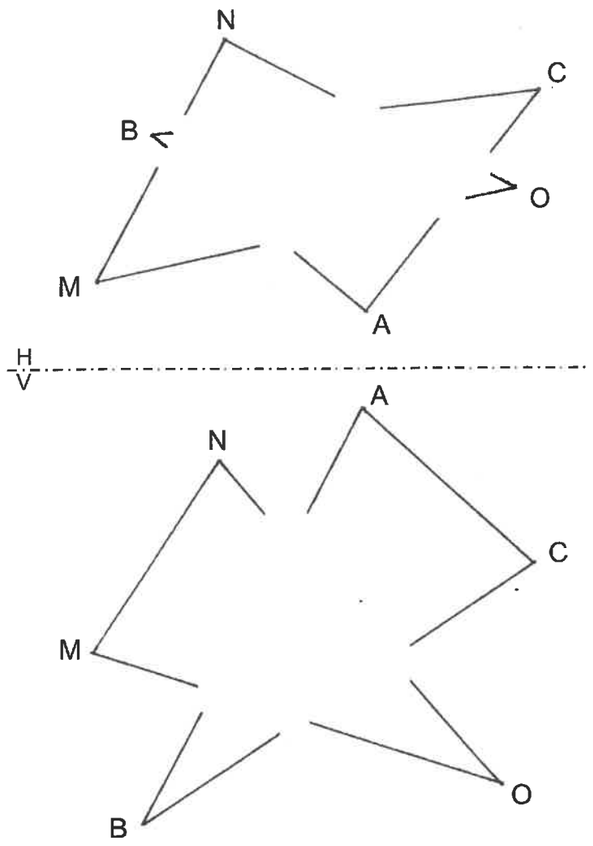
PROJECTION :	GKM No. :	DRAWN BY :			**Exam GKM (2019)**
		STUDENT No.	DATE :	SCALE :	SHEET 1 OF 1

FFP 2000

2



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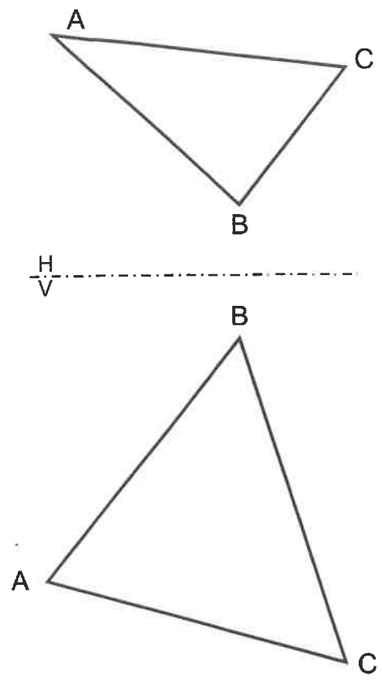
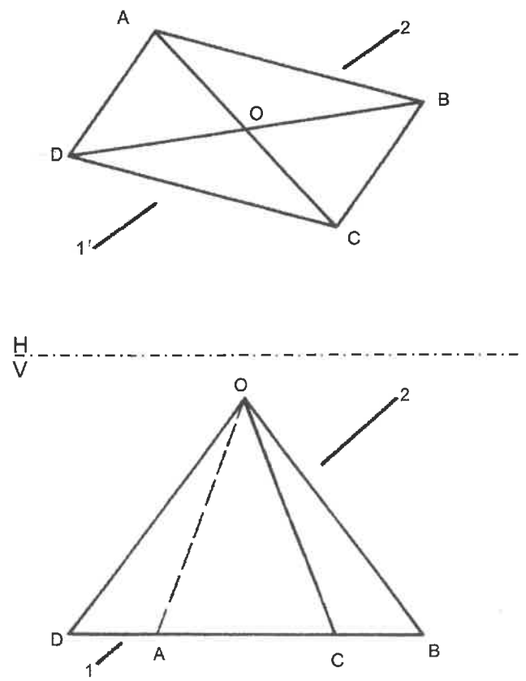


Area / Area:_____

4



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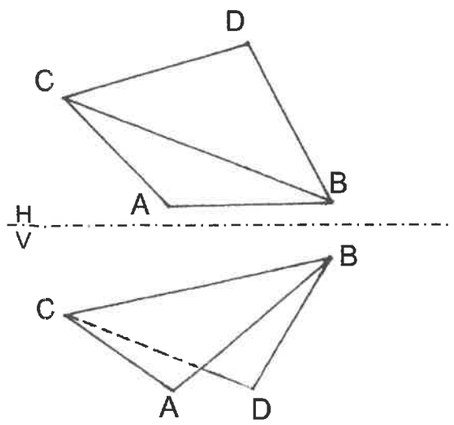

Dihedral angle:_____
Dehidrale hoek: