

GAUTENG DEPARTMENT OF EDUCATION

GAUTENGSE DEPARTEMENT VAN ONDERWYS

TECHNICAL DRAWING : HIGHER GRADE

TEGNIËSE TEKENE : HOËR GRAAD

SENIOR CERTIFICATE EXAMINATION

SENIORSERTIFIKAAT-EKSAMEN

711 - 1 / 2 U

QUESTION 1.1

ANSWER THIS QUESTION ON ANSWER SHEET 1.

Figure 1.1 shows a manufacturing drawing of a PULLEY TENSIONER drawn in Third- Angle Orthographic Projection.

Study the drawing and answer the following questions.

QUESTIONS	ANSWERS	MARKS
1.1.1. What size nut is shown on the bolt B ?	M6	1
1.1.2. Calculate the length of the arm A.	67 MM	2
1.1.3. Determine the number of components.	10	2
1.1.4. Which projection system was used ?	T.A.O.P.	1
TOTAL	6	

VRAAG 1.1

BEANTWOORD HIERDIE VRAAG OP ANTWOORDVEL 1.

Figuur 1.1 toon 'n werkstekening van 'n SPANKATROL geteken in Derdehoekse Ortografiese Projeksie.

Bestudeer die tekening en beantwoord die volgende vrae.

VRAE	ANTWOORDE	PUNTE
1.1.1. Wat grootte moer word op bout B getoon ?	M6	1
1.1.2. Bereken die lengte van arm A.	67 MM	2
1.1.3. Bepaal die hoeveelheid komponente.	10	2
1.1.4. Watter projeksiesistiem is gebruik ?	D.H.O.P.	1
TOTAAL	6	

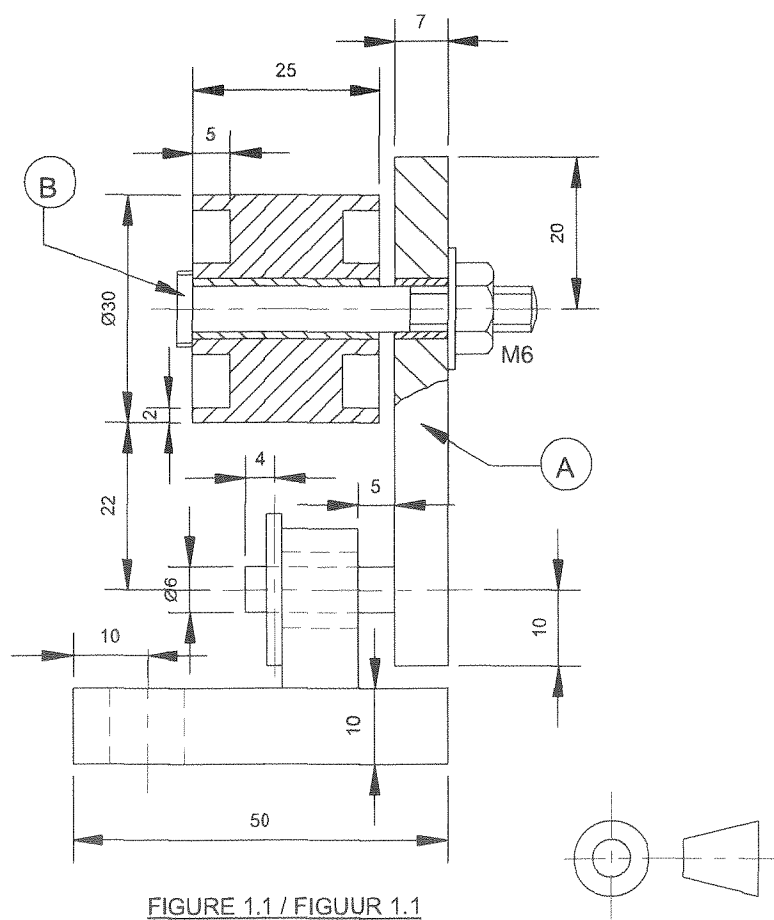


FIGURE 1.1 / FIGUUR 1.1

QUESTION 1.2

ANSWER THIS QUESTION ON ANSWER SHEET 1

Figure 1.2 shows the front and top views of a model.

Determine, freehand, the right view of the model.	8	
TOTAL	8	

VRAAG 1.2

BEANTWOORD HIERDIE VRAAG OP ANTWOORDVEL 1.

Figuur 1.2 toon die voor- en boaansigte van 'n model.

Bepaal, vryhand, die regteraansig van die model.	8	
TOTAAL	8	

PROJEKSIE = 1
PROJECTION = 1
PRESENTATION = 1
AANBIEDING = 1

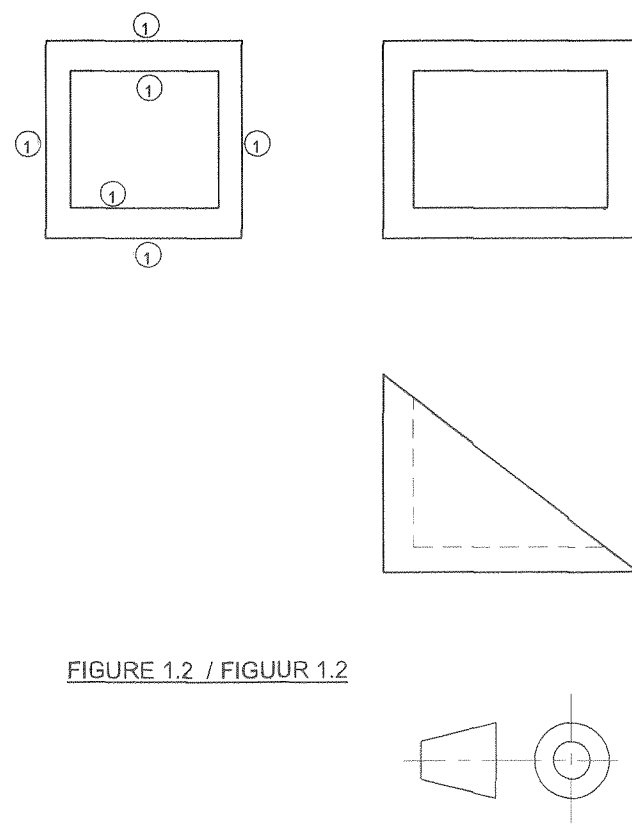
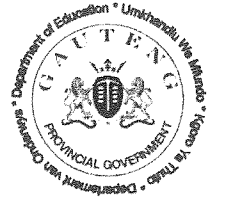


FIGURE 1.2 / FIGUUR 1.2

TECHNICAL DRAWING 711-1/2 U HIGHER GRADE

TEGNIESE TEKENE 711-1/2 U HOËR GRAAD



QUESTION 1.3

ANSWER THIS QUESTION ON ANSWER SHEET 1..

Figure 1.3 shows the front and top views of a cover.

Project the sectioned left view on cutting plane R-R.	11	
TOTAL	11	

VRAAG 1.3

BEANTWOORD HIERDIE VRAAG OP ANTWOORDVEL 1.

Figuur 1.3 toon die voor- en boaansigte van 'n deksel.

Projekteer die deursnee-linkeraansig op snyvlak R-R.	11	
TOTAAL	11	

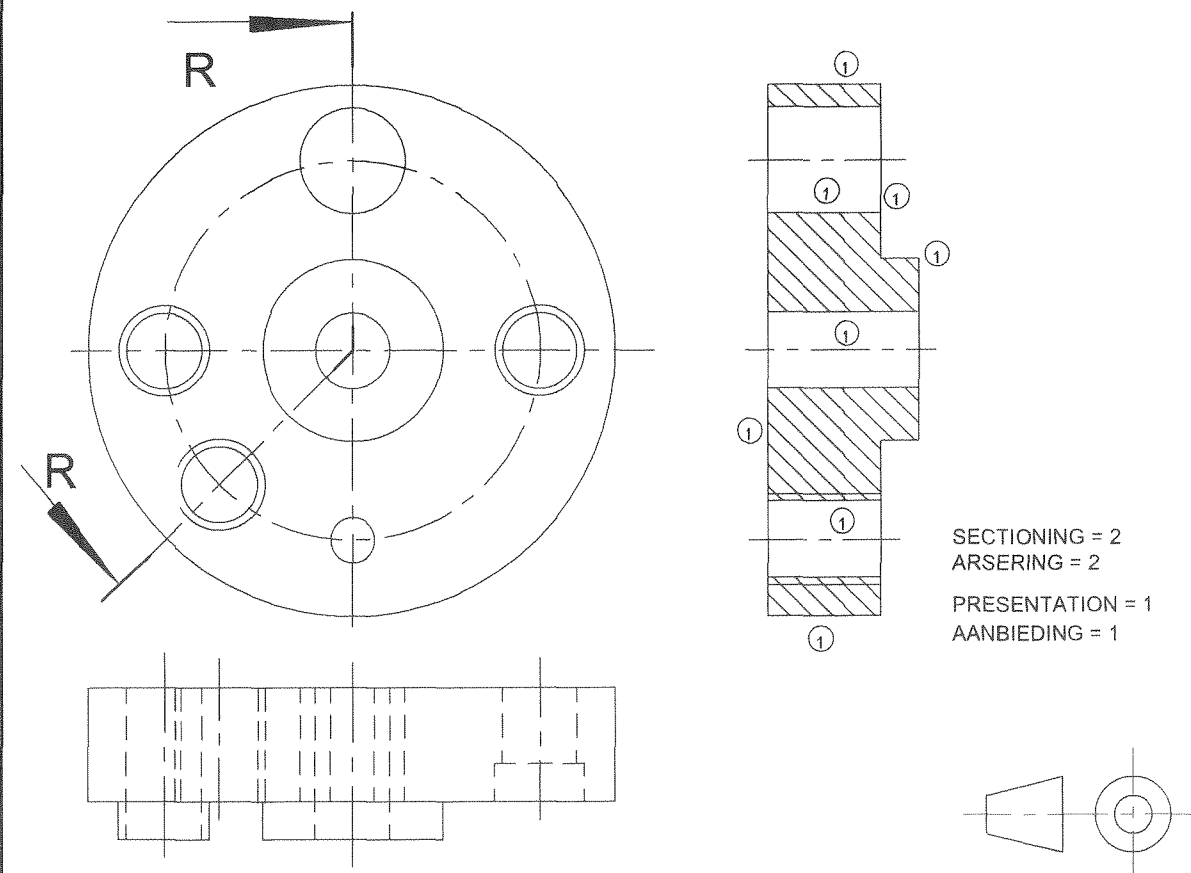


FIGURE 1.3 / FIGUUR 1.3

SECTIONING = 2
ARSERING = 2
PRESENTATION = 1
AANBIEDING = 1

EXAMINATION NUMBER / EKSAMENNOMMER

A	B								
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QUESTION 1 / VRAAG 1

ANSWER SHEET 1

ANTWOORDVEL 1

QUESTION 1 / VRAAG 1

QUESTION 1.1 / VRAAG 1.1	6	
QUESTION 1.2 / VRAAG 1.2	8	
QUESTION 1.3 / VRAAG 1.3	11	
TOTAL / TOTAAL	25	

QUESTION 2
ANSWER THIS QUESTION ON ANSWER SHEET 2.

Figure 2 shows in First-angle Orthographic Projection the front and top views of a SHACKLE AND PIN.

Produce to SCALE 1:1 a sectioned isometric view on cutting plane N-N.
Make use of the given centre lines.

Do not show hidden detail.

Presentation

33

2

TOTAL 35

VRAAG 2
BEANTWOORD HIERDIE VRAAG OP ANTWOORDVEL 2.

Figuur 2 toon in Eerstehoekse Ortografiese Projeksie die voor- en boaansigte van BOEI EN PEN.

Teken volgens SKAAL 1:1 'n deursnee- isometriese aansig op snyvlak N-N.
Maak gebruik van die gegewe hartlyne.

Moet nie verborge detail toon nie.

Aanbieding

33

2

TOTAAL 35

TECHNICAL DRAWING 711-1/2 U HIGHER GRADE

TEGNIÛSE TEKENE 711-1/2 U HOER GRAAD

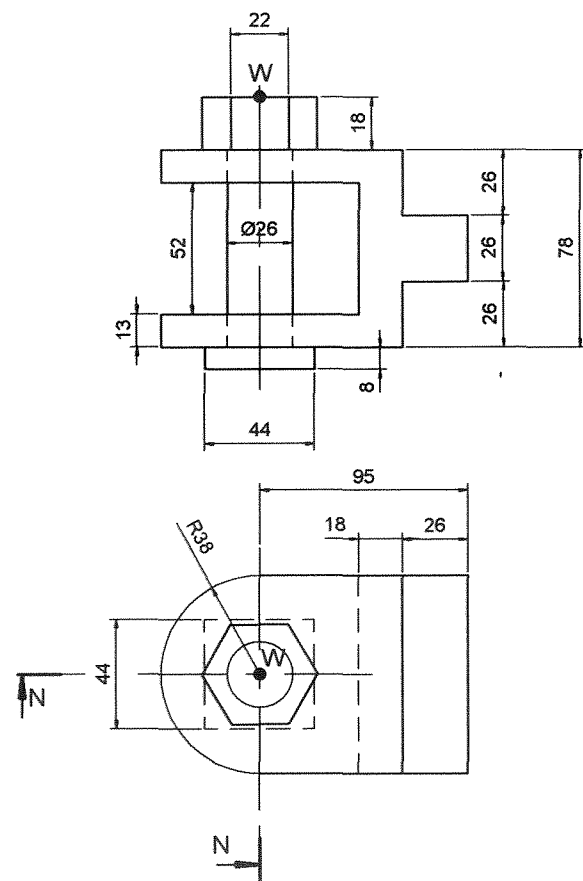
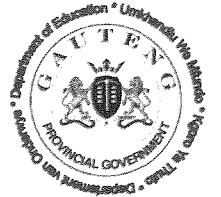
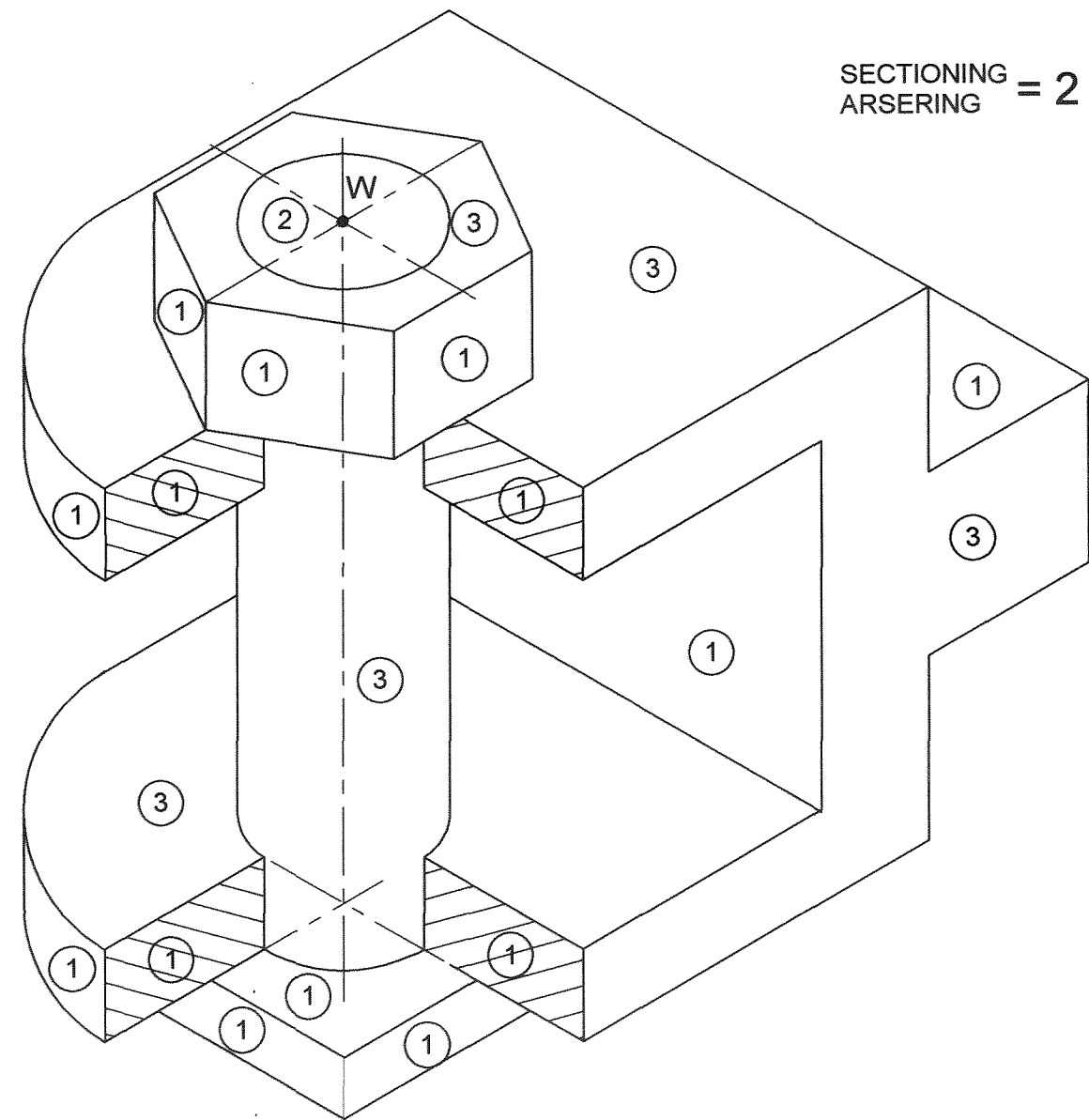


FIGURE 2 / FIGUUR 2



SECTIONING
ARSERING = 2

START AT POINT W

BEGIN BY PUNT W

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QUESTION 2 / VRAAG 2

ANSWER SHEET 2

ANTWOORDVEL 2

QUESTION 3

ANSWER THIS QUESTION ON ANSWER SHEET 3.

Make use of the given diagram on answer sheet 3 to produce a twopoint perspective drawing of a factory.

DO NOT SHOW HIDDEN DETAIL.

Presentation

38

2

TOTAL

40

VRAAG 3

BEANTWOORD HIERDIE VRAAG OP ANTWOORDVEL 3.

DEUR GEBRUIK TE MAAK VAN DIE GEGEWE DIAGRAM OP ANTWOORDVEL 3 TEKEN 'N TWEEPUNTPERSPEKTIEF-TEKENING VAN 'N FABRIEK.

MOET NIE VERBORGE DETAIL TOON NIE.
Aanbieding

38

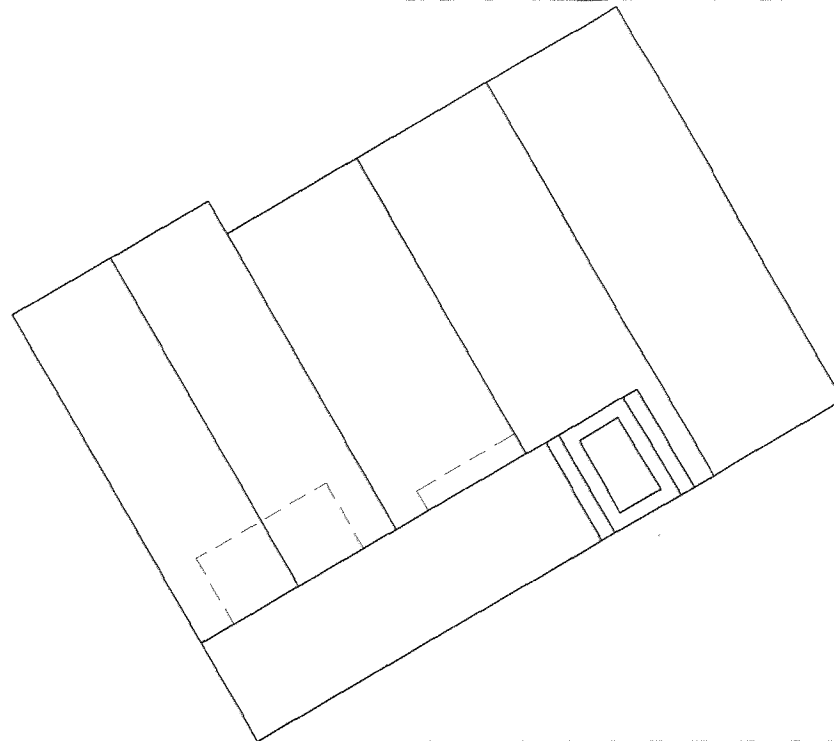
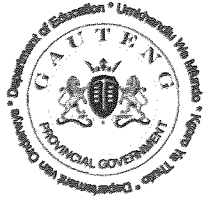
2

TOTAAL

40

TECHNICAL DRAWING 711-1/2 U HIGHER GRADE

TEGNIESE TEKENE 711-1/2 U HOËR GRAAD



PP = PICTURE PLANE
HL = HORIZON LINE
SP = STATION POINT
GL = GROUND LINE

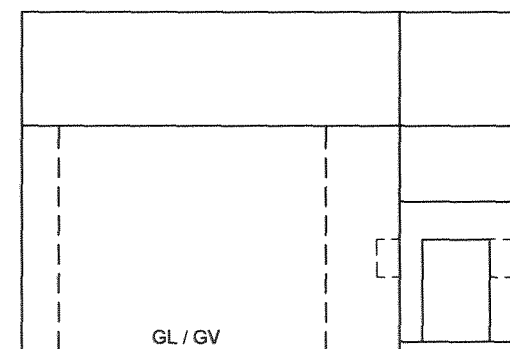
PV = PRENTVLAK
HL = HORISONLYN
SP = STAANPUNT
GV = GRONDVLAK

PP / PV

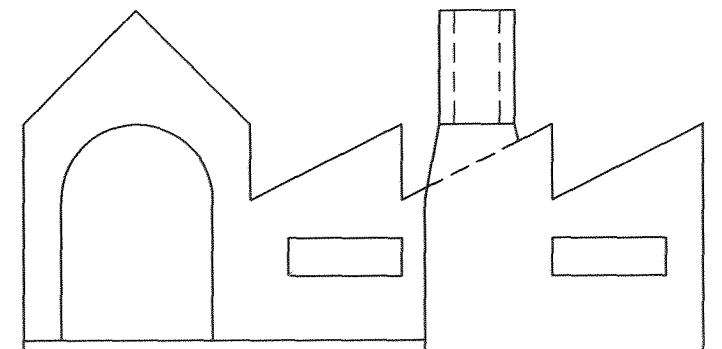
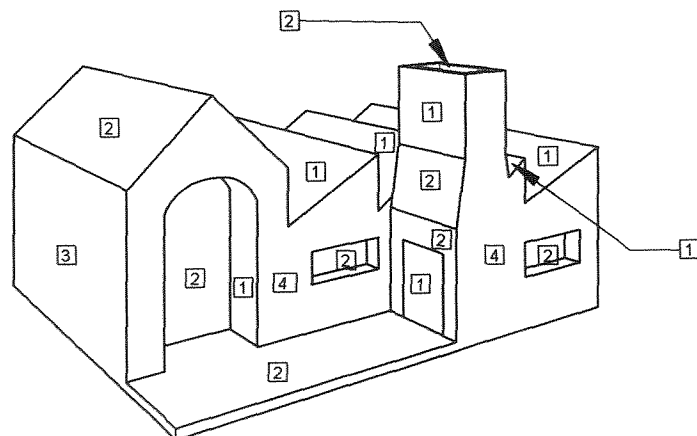
HL

LVP
|
2

RVP
|
2



GL / GV



SP

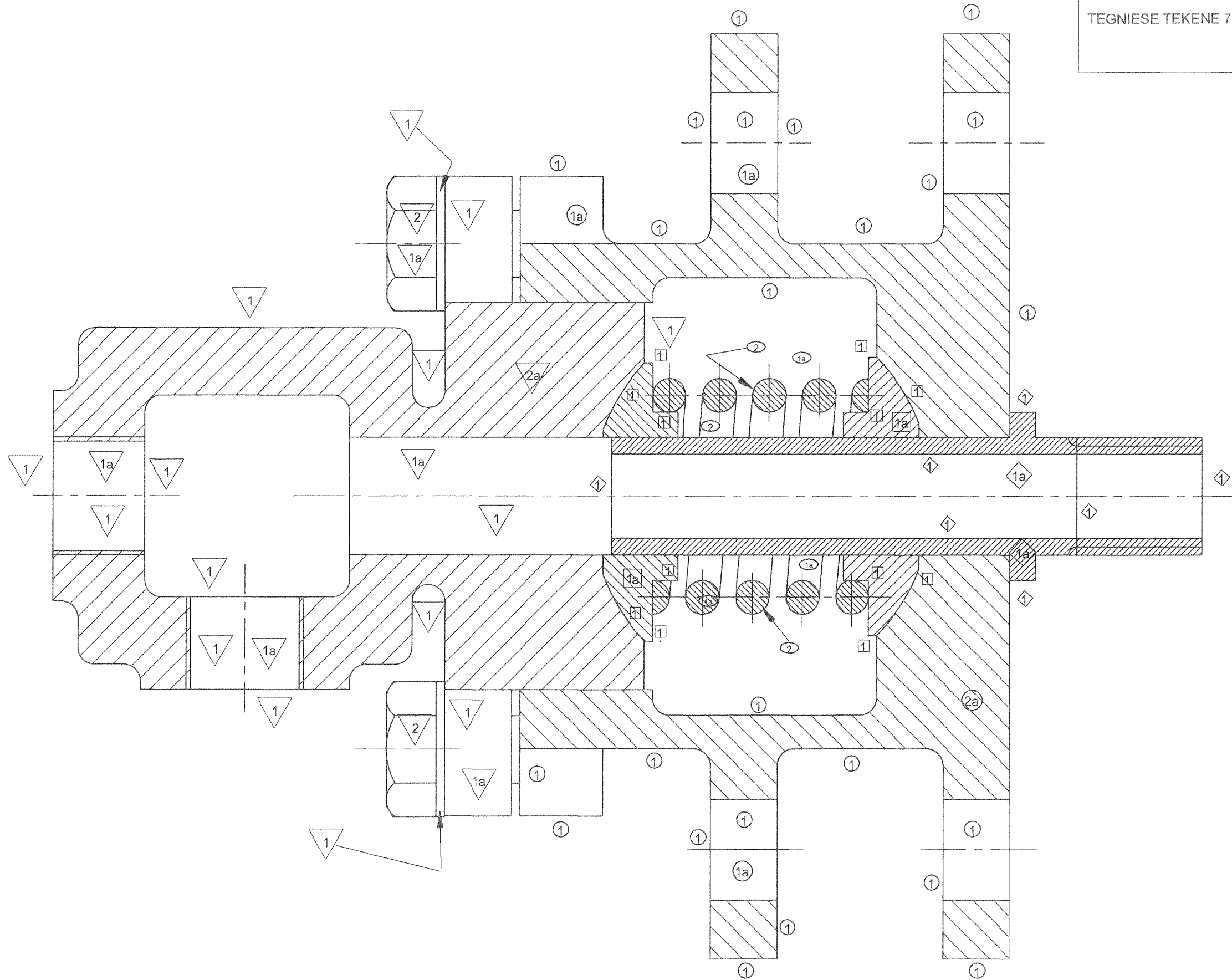
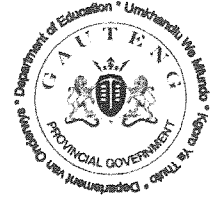
EXAMINATION NUMBER / EKSAMENNOMMER

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QUESTION 3 / VRAAG 3

ANSWER SHEET 3

ANTWOORDVEL 3



MARK ALLOCATION PUNTETOEKENNING	
BODY HULSEL	24
SECTIONING ARSERING	5
COLLAR KRAAG	12
SECTIONING ARSERING	2
SPRING VEER	6
SECTIONING ARSERING	2
HEAD & BOLTS KOP & BOUTE	20
SECTIONING ARSERING	7
NIPPLE VEER	7
SECTIONING ARSERING	2
SUBTOTAL SUBTOTAAL	87
DIMENSIONS AFMETINGS	3
PROJECTION SYSTEM PROEKSIESISTEEM	2
TITLE & SCALE TITEL & SKAAL	1
PRESENTATION AANBIEDING	3
ASSEMBLY SAMSTELLING	4
SUBTOTAL SUBTOTAAL	13
TOTAL TOTAAL	100