

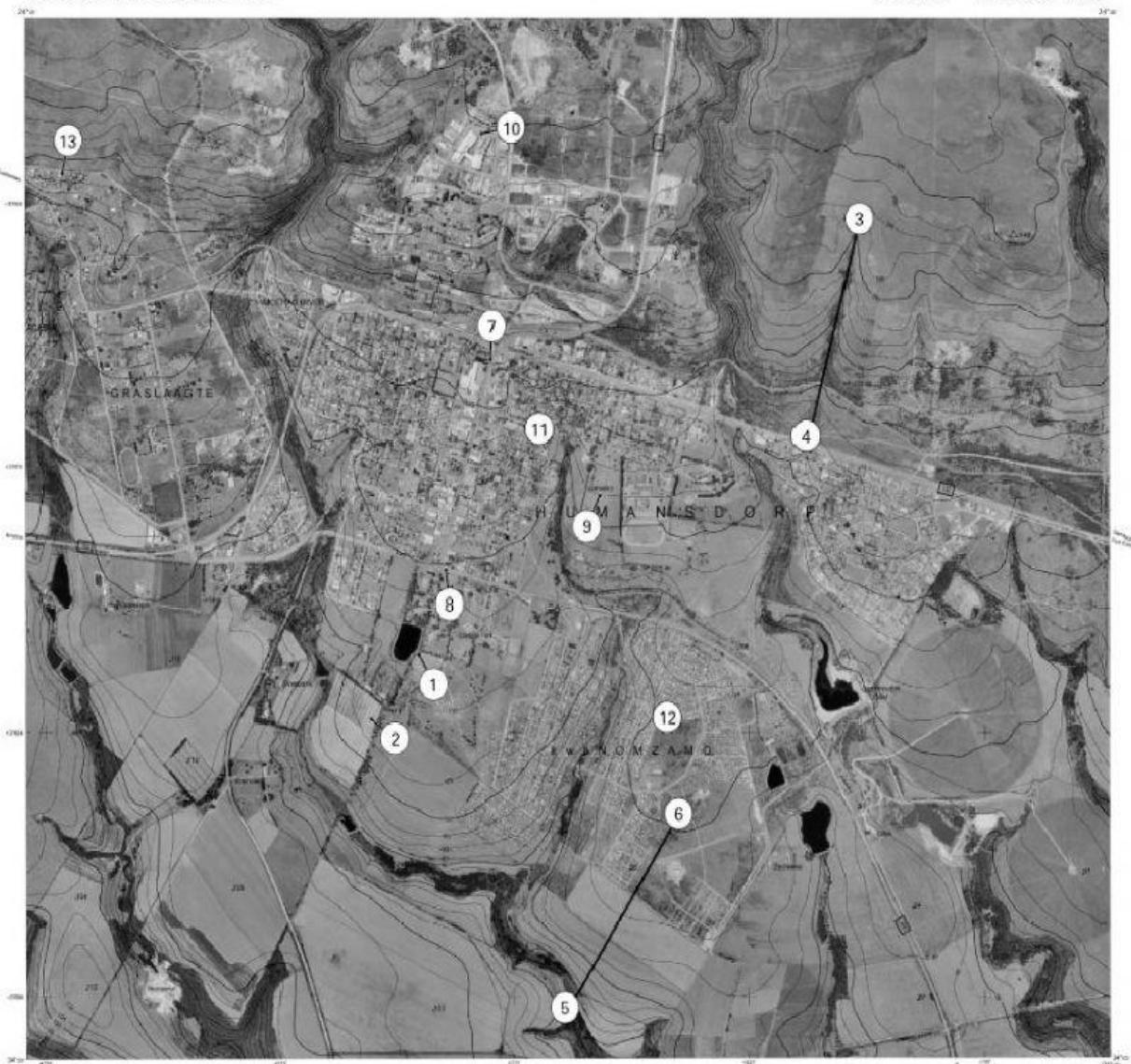
SECTION A: THE ATMOSPHERE

SECTION B: MAPWORK

The following questions are based on the 1 : 50 000 topographical map 3424 BB HUMANSDORP as well as the orthophoto map 3424 BB 1 HUMANSDORP of a part of the mapped area.

3424 BB 1 HUMANSDORP

ORTHOPIOTOMOOGKAART 1:50 000
3424 BB 1 HUMANSDORP 1:10 000
SOUTH AFRICA
SUDAFRIKA



Published for the South African Department of Environment, Forestry and Fisheries, Pretoria, Dept. 1000, Ministry
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Photography: AEROCART
Photographer: G. J. VAN DER HORST
Editor: G. J. VAN DER HORST
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While every effort is made to ensure the accuracy of this map, users of this map and its associated data are
responsible for noting the Limitations of Surveying, Surveying and Mapping.
An orange square is used to represent the uncorrected horizontal error in metres. Coloured areas are
representative of the horizontal error. Coloured areas are not intended to represent the vertical error.

Geographic Projection: Gauß-Krueger 25° East

Datum: Transverse Mercator
Scale Interval: 1:50 000
Scale Factor: 0.9995
Vertical Datum: WGS84

1:10 000

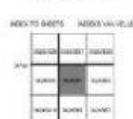


Gauß-Krueger Projection: Heidemeyer 25° East

Datum: Transverse Mercator
Scale Interval: 1:50 000
Scale Factor: 0.9995
Vertical Datum: WGS84

3424 BB 1

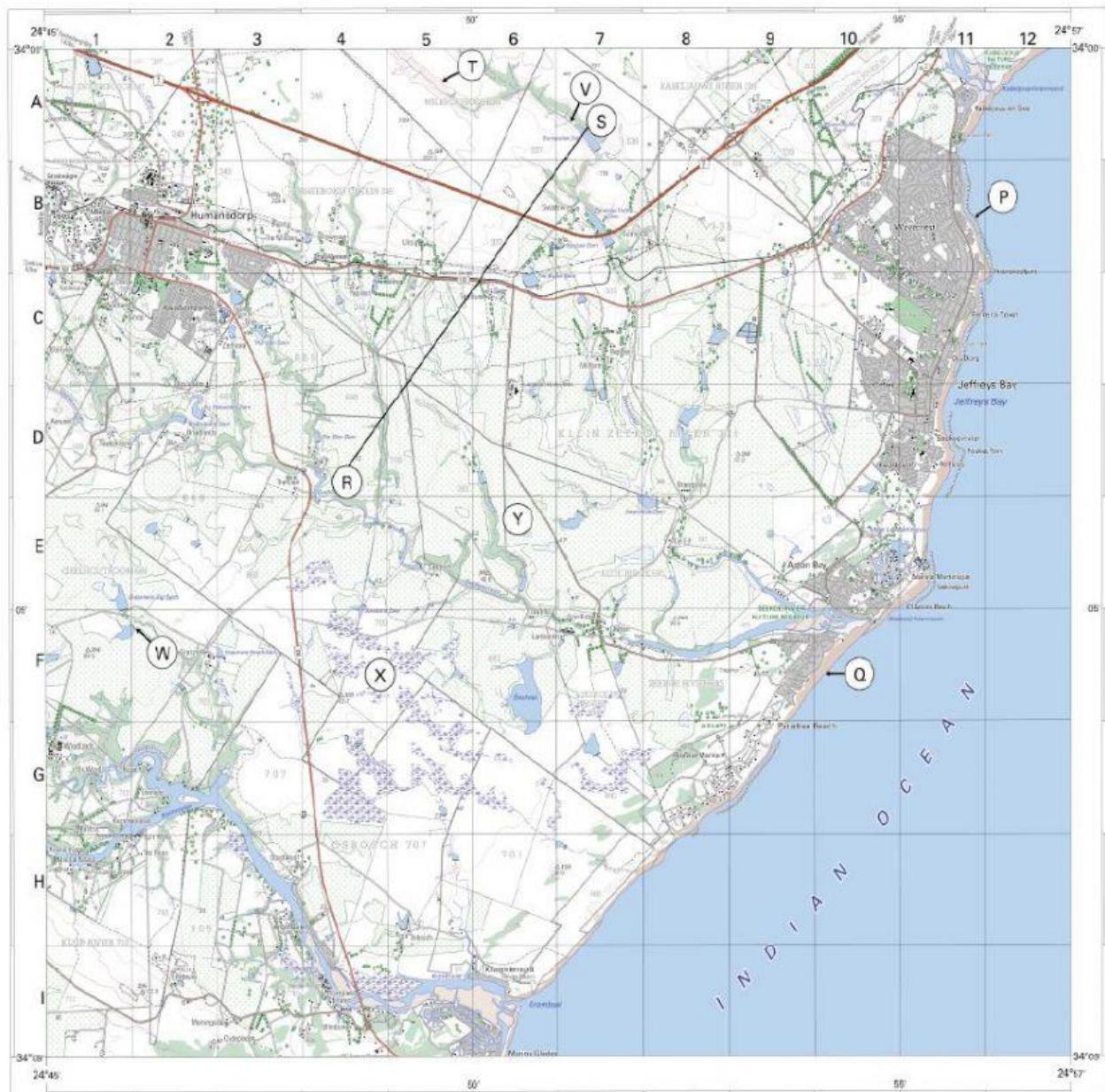
SECOND EDITION
THREE SIZE UTM/DAE
1999



3424BB HUMANSDORP

1:50 000 SOUTH AFRICA
SUID-AFRIKA

SOUTH AFRICA
SUID-AFRIKA



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REFERENCE	VERKLARING
National Inventory/National Report	Nationale Inventaris/Nationale Rapportage
Area of Risk	Risicogebied
Area of Impact	Impactgebied
Seawater Road Block	Waterweg verhindering
Other Road Bridge	Andere wegbrug
Non-structural	Niet-structuur
Non-structural Engineering	Niet-structuur ingenierij
Other Railway Tunnel	Andere spoorwegtunnel
Entankment Capping	Entankingsdak
Sea-level Rise	Stijgen van de zeespiegel
Tailings Area/Hill, Low Density	Totale afvalplaats/berg, laag gedrukt
Buildings/Hills	gebouwen/bergen
Coastal Area/Hill, High Density	Stedelijke kustgebied/berg, hoog gedrukt
Area of Works/Industrial Area	Werkingebied/industriële gebied
Trees/Wood	Bomen/boom
Reservoirs/Reservoirs	Reservoirs
Water Storage/Reservoirs	Wateropslagreservoirs
Tidal/Sea Level Rise	Tijdsleep/zeespiegelstijging
Groundwater/Underground Water	Grondwater
Oil/Gas Storage/Reservoirs	Oliewerkingen/gasopslagreservoirs

With every effort to make this an easy-to-use map, roads, trails, rivers, and streams are color-coded to match the trail direction. Groups and Monkeys



Alle pogen, recente en oud, zijn gevoerd in de deelstaat Florida. De enige bekende gebrekkige voorstellingen die voorhanden zijn: *Dromiciops kuhlii*.

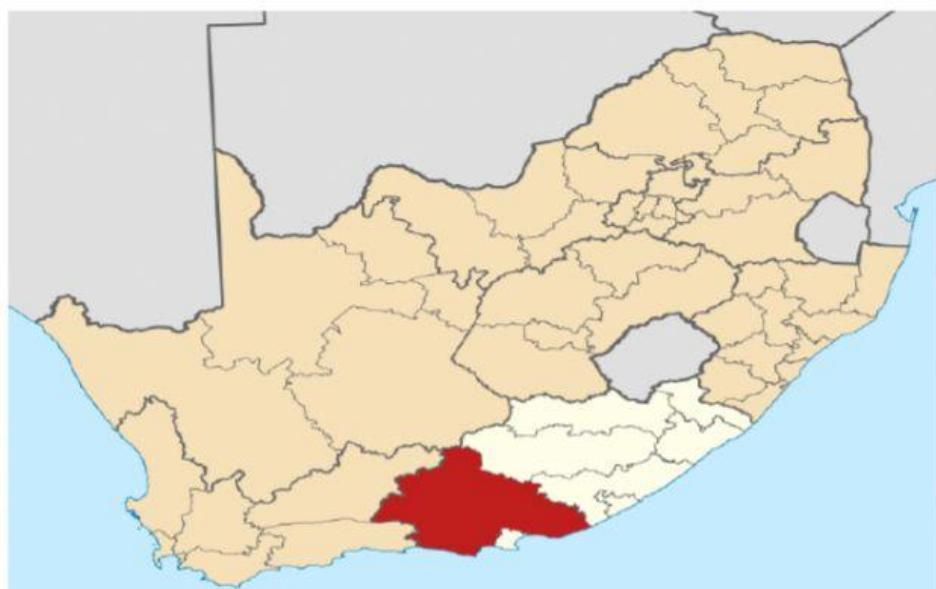
3434RR HUMANSOCP 2480-03004 1999

3424BB HUMANSDORF GÖRDE URGÄTE 1999

WORKSHEETS

FIGURE 3: GENERAL INFORMATION ON HUMANSDORP

Humansdorp is a small town, including the surrounding district, in the Eastern Cape of South Africa, with a population of around 29 000 according to the census of 2011. It is part of the Kouga Local Municipality of the Sarah Baartman District. The town is the centre of the district's light industry and farming. Humansdorp was founded in 1849 and was named after Johannes Jurie Human and Matthys Gerhardus Human. The town's residential streets are lined with trees that were planted before the First World War by the then mayor, Ambrose Saffery. The Apple Express passes through Humansdorp.



QUESTION 3

3.1 MAPWORK CALCULATIONS AND TECHNIQUES

3.1.1 Choose the correct word/phrase between brackets.

(a) The contour interval of the orthophoto map is (20 metres/5 metres). (1 x 1) (1)

(b) The 1: 50 000 scale of the topographic map is 5 times (larger/smaller) than the 1: 10 000 scale of the orthophoto map. (1 x 1) (1)

(c) The feature found at grid location $34^{\circ}04'55''S/24^{\circ}45'57''E$ is a (dam/trigonometrical beacon). (1 x 1) (1)

3.1.2 Refer to the feature numbered 1 on the orthophoto map.

Calculate in km^2 , the area of the feature numbered 1 on the orthophoto map. Show ALL calculations. Marks will be awarded according to your calculations. (4 x 1) (4)

3.1.3 Refer to block A5 on the topographic map.

(a) Calculate the difference in height between spot height 209 and trigonometrical beacon number 139. (2 x 1) (2)

(b) Is the slope steep or gentle between the two points named in QUESTION 3.1.3 (a)? (1 x 1) (1)

3.2 MAP AND PHOTO APPLICATION AND INTERPRETATION

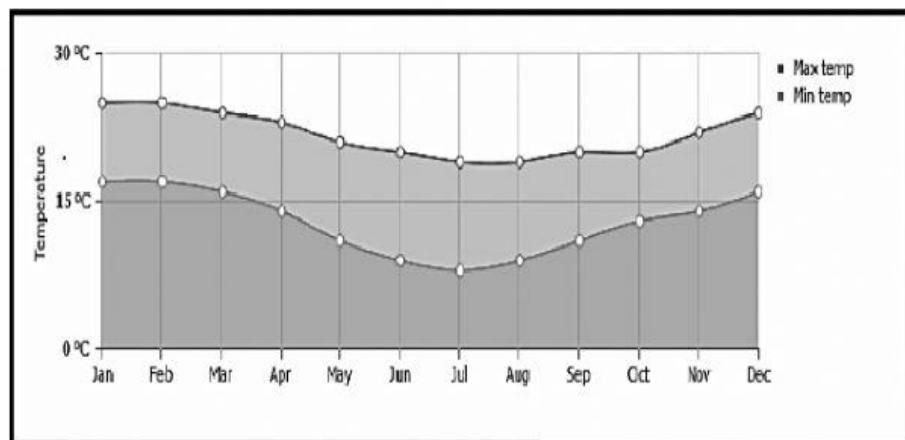
3.2.1 Refer to both the topographical and orthophoto map.

(a) Identify the human-made feature found between points marked 3 and 4. (1 x 1) (1)

(b) Name the river that joins the ocean in block I6. (1 x 1) (1)

(c) What is the source of the water found in block B2? (1 x 1) (1)

FIGURE 3.2.2: TEMPERATURE GRAPH OF JEFFREY'S BAY



3.2.2 Study the temperature graph of Jeffreys Bay, FIGURE 3.2.2 together with block **C/D11** on the topographic map.

(a) State the month with the minimum temperature. (1 x 1) (1)

(b) In which month was the lowest monthly temperature range recorded? (1 x 2) (2)

3.2.3 Describe how excavation in block **B6** can be harmful to the environment and human activity (2 x 2) (4)

3.2.3 Suggest ONE reason why the people of KwaNomzamo settlement would consider the dams in block **C3** as a threat to their lives during flooding. (1 x 2) (2)

3.3 GIS

3.3.1 Write the acronym GIS in full. (1 x 1) (1)

3.3.2 Is the orthophoto map an example of a vertical or an oblique photograph? (1 x 1) (1)

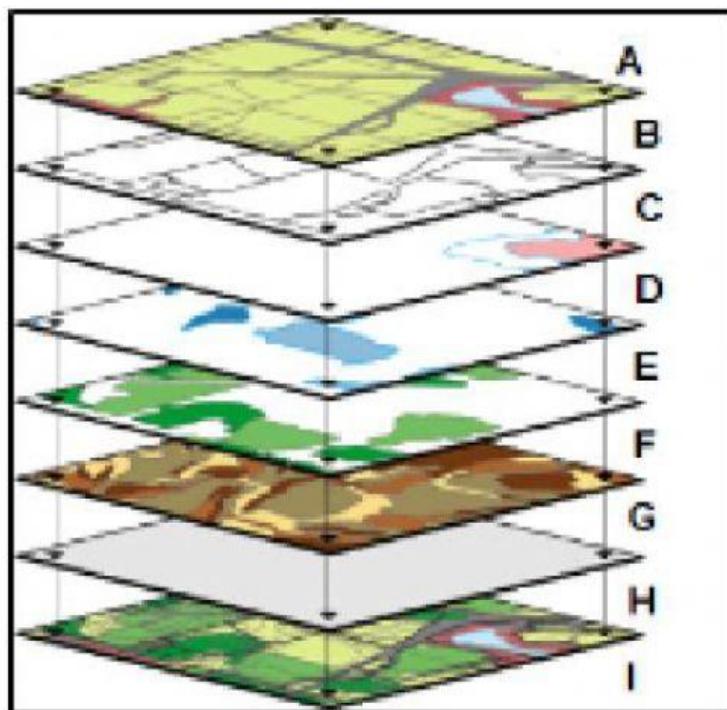
3.3.3 Refer to block C3 on the topographic map. Classify the following features under node (point), linear (line) and polygon (area).

Mark with an x in the correct classifying blocks

FEATURE	NODE	LINEAR	POLYGON
Cultivated land			
Reservoir			
Main road			

(3 x 1) (3)

FIGURE 3.3.4: DATA LAYERS



A	Topographic base
B	Pathway
C	Zoning
D	Floodplains
E	Wetlands
F	Land cover
G	Soils
H	Survey control
I	Composite overlay

3.3.4 Study the diagram in FIGURE 3.3.3 that shows data layers together with block D2.

(a) In GIS data layers are called ... (1 x 1) (1)

(b) Explain the importance of using GIS in today's fast-changing world. (1 x 2) (2)
[30]