Province of the
EASTERN CAPE
EDUCATION

NATIONAL SENIOR CERTIFICATE

GRADE 11

NOVEMBER 2025

GEOGRAPHY P2

MARKS: **150**

TIME: **3 hours**

This question paper consists of 18 pages.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO SECTIONS.

   SECTION A:
   QUESTION 1: DEVELOPMENT GEOGRAPHY (60)
   QUESTION 2: RESOURCES AND SUSTAINABILITY (60)

   SECTION B:
   QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES (30)

2. Answer all THREE questions.

3. ALL diagrams are included in the QUESTION PAPER.

4. Leave a line between subsections of questions answered.

5. Start EACH question on a NEW page.

6. Number the questions correctly according to the numbering system used in this question paper.

7. Do NOT write in the margins of the ANSWER BOOK.

8. Draw fully labelled diagrams when instructed to do so.

9. Answer in FULL SENTENCES, except when you have to state, name, identify or list.

10. Units of measurement MUST be indicated in your final answer, e.g. 1 020 hPa, 14 °C and 45 m.

11. You may use a non-programmable calculator.

12. You may use a magnifying glass.

13. Write neatly and legibly.

SPECIFIC INSTRUCTIONS AND INFORMATION FOR SECTION B

14. A 1 : 50 000 topographical map 2529CC EMALAHLENI and a 1 : 10 000 orthophoto map 2529CC 15 EMALAHLENI are provided.

15. The area demarcated in RED/BLACK on the topographic map represents the area covered by the orthophoto map.

16. Marks will be allocated for steps in calculations.

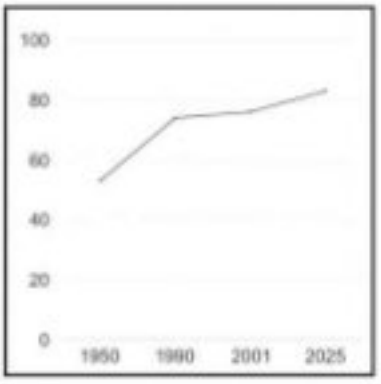
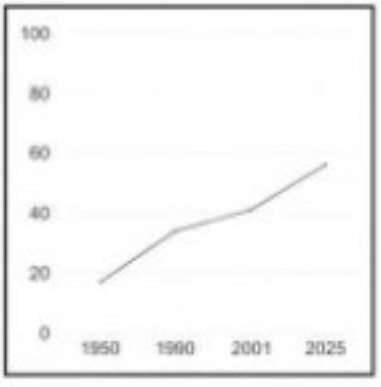
17. You must hand in the topographical and the orthophoto map to the invigilator at the end of this examination session.

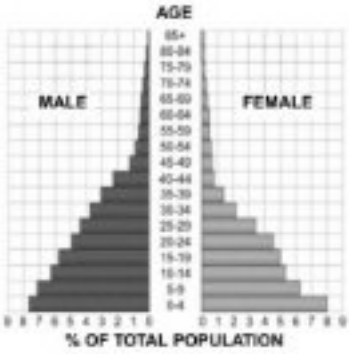
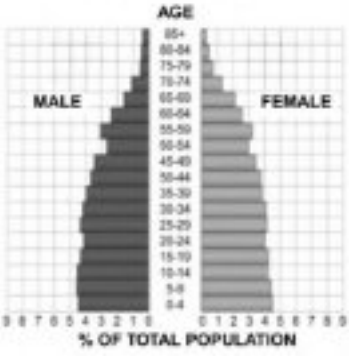
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SECTION A

QUESTION 1: DEVELOPMENT

1.1 Complete the statements in COLUMN A with the options in COLUMN B. Write only **Y** or **Z** next to question numbers (1.1.1 to 1.1.8) in the ANSWER BOOK, for example 1.1.9 Z.

COLUMN A		COLUMN B
1.1.1	The Gross Domestic Product is a(n) … indicator of development.	**Y** social **Z** economic
1.1.2	The indicators for the … include life expectancy, GDP per capita and level of education.	**Y** Human Development Index **Z** Gini co-efficient
1.1.3	A country with a Gini co-efficient of 0,7 indicates … distribution of wealth.	**Y** equal **Z** unequal
1.1.4	Infant mortality rate and life expectancy are … indicators.	**Y** demographic **Z** social
1.1.5	A country with a Human Development Index of 0,94 has a … quality of life.	**Y** high **Z** low
1.1.6	The Gross National Income per capita indicates … average income.	**Y** the country's **Z** a person's
1.1.7	The urbanisation rate typical of a Less Economically Developed Country (LEDC).	**Y**  **Z** 

1.1.8 The population pyramid typical of a More Economically Developed Country (MEDC).	**Y**  **Z** 

(8 x 1) (8)

1.2 Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question numbers (1.2.1 to 1.2.7) in the ANSWER BOOK, for example 1.2.8 D.

Refer to the sketch below, showing five of the Sustainable Development Goals (SDGs) adopted by all United Nations (UN) member states, to answer QUESTIONS 1.2.1 and 1.2.2.



[Adapted from https://ourworldindata.org]

1.2.1 The Sustainable Development Goals (SDIs) represent development from a … context.

A local
B national
C regional
D global

1.2.2 The goal of reducing risk from disasters and economic shocks:

A No poverty
B Zero hunger
C Good health
D Quality education

1.2.3 Factors used to determine the Gender Inequality Index (GII):

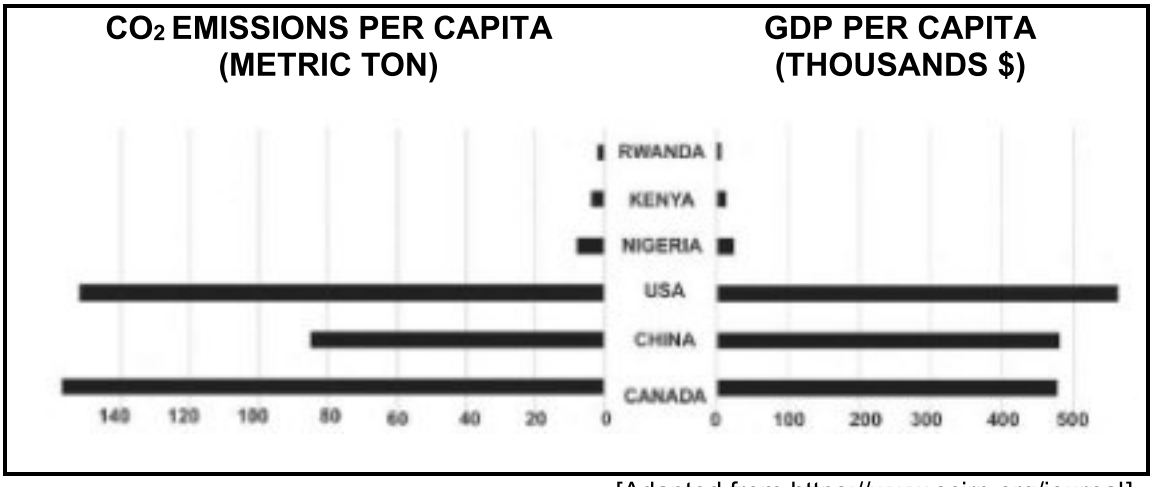
(i) Population life expectancy
(ii) Health of girls and women
(iii) Political representation of women
(iv) Women's access to resources

A (i) and (iii)
B (i) and (iv)
C (ii) and (iv)
D (ii) and (iii)

1.2.4 A country with a high Gender Inequality Index (GII) is most likely to have …

A limited job opportunities for women.
B fair access to education for boys and girls.
C equal pay between men and women.
D fair opportunities for everyone.

Refer to the graph below to answer QUESTIONS 1.2.5 to 1.2.7.



[Adapted from https://www.scirp.org/journal]

1.2.5 The country with the largest per capita carbon emissions:

A Nigeria
B USA
C Canada
D China

1.2.6 The relationship between a country's GDP and its per-capita CO_2 emissions:

A GDP and CO_2 emissions per capita are unrelated
B As GDP increases; per capita CO_2 emissions decrease
C As GDP increases; per capita CO_2 emissions increase
D Higher GDP guarantees lower emissions

1.2.7 … aims to balance economic growth, social inclusion and environmental protection:

A Industrial development
B Sustainable development
C Modernisation
D Appropriate development (7 x 1) (7)

1.3 Refer to the extract below on community-based development and answer the questions that follow.

FAILURE OF COMMUNITY-OWNED MACADAMIA NUT FARM

The Ncera Macadamia Nut Farm was launched in 2006 as a model of community-based rural development, aiming to empower local people. To support the project's development, it initially received over R135 million in investment. The money was sourced primarily from government departments and other public sector and development partners. In line with the principles of community-driven development, ownership of the farm was transferred to the Ncera community under the leadership of the Imidushane Council.

Despite its ambitious goals, the nut farm struggled to gain momentum (success). It eventually collapsed in 2024 due to a combination of factors, including mismanagement of funds, government delays in infrastructure, limited skills among workers and a crash in macadamia nut prices.

[Adapted from www.bizcommunity.com]

1.3.1 According to the extract, what was the main aim of this community-based rural development project? (1 x 1) (1)

1.3.2 Quote evidence from the extract that this project was a multi-stakeholder collaboration. (1 x 2) (2)

1.3.3 What economic reasons contributed to the project's failure? (2 x 1) (2)

1.3.4 Explain the negative impact on the local people after the failure of the project. (2 x 2) (4)

1.3.5 Suggest strategies that could be put in place to ensure that other community-based rural development projects are more sustainable. (3 x 2) (6)

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1.4 Refer to the image and extract on South African trading relationships.



BALANCING CONSUMER GAINS AND LOCAL INDUSTRY COSTS

Major online retailers* Shein and Temu have rapidly expanded their presence in South Africa. Since entering the market in 2020 and 2023 respectively, they have captured over a third of online clothing sales, and in 2024, generated an estimated R7,3 billion.

Their success was driven by South Africa's previous customs relief system, which let imports under R500 be charged only a 20% import duty (tariff) without VAT. This kept prices low and allowed them to sell goods much cheaper than local competitors.

It has now been proposed to the South African government that customs relief be removed so that every imported item will be charged both the 20% import duty (tariff) and the 15% VAT.

* Online retailer: business that sells goods to consumers over the internet

[Adapted from https://dailyinvestor.com/retail]

1.4.1 Identify the country from where Temu and Shein products are imported. (1 x 1) (1)

1.4.2 According to the extract, what economic advantage do online retailers have over local South African companies? (1 x 2) (2)

1.4.3 What are the benefits for the local consumer buying from these international online retailers? (2 x 2) (4)

1.4.4 In a paragraph of approximately EIGHT lines, explain why South Africa has considered altering (changing) trade agreement terms. (4 x 2) (8)

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1.5 Refer to the cartoon and extract on development aid in Somalia.



Bilateral aid from the United States (U.S.), mainly through USAID, has long been one of Somalia's largest sources of external support. In the health sector, its primary goal was to save lives during emergencies, respond to disease outbreaks and provide emergency medical care.

In 2025, U.S. aid was reduced by $616 million (over 80 percent), mainly due to domestic financial pressures, concerns over aid effectiveness and geopolitical changes. Somalia now has to face the consequences of an 'aid trap' that has made its healthcare system highly vulnerable.

[Adapted from https://www.reuters.com/]

1.5.1 What is *bilateral aid?* (1 x 2) (2)

1.5.2 Why is this health aid an example of humanitarian aid? (1 x 1) (1)

1.5.3 How does the cartoon illustrate changes regarding development aid from the USA? (1 x 2) (2)

1.5.4 What factors have contributed to Somalia becoming caught in an 'aid trap'? (2 x 2) (4)

1.5.5 Explain the negative social impact that the reduction of aid from the USA will have on the people of Somalia. (3 x 2) (6)

[60]

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QUESTION 2: RESOURCES AND SUSTAINABILITY

2.1 Classify each energy source in South Africa as either conventional or non-conventional. Write only CONVENTIONAL or NON-CONVENTIONAL next to the question numbers (2.1.1 to 2.1.7) in the ANSWER BOOK, for example 2.1.8 Conventional.

2.1.1 Wind

2.1.2 Geothermal

2.1.3 Nuclear

2.1.4 Thermal

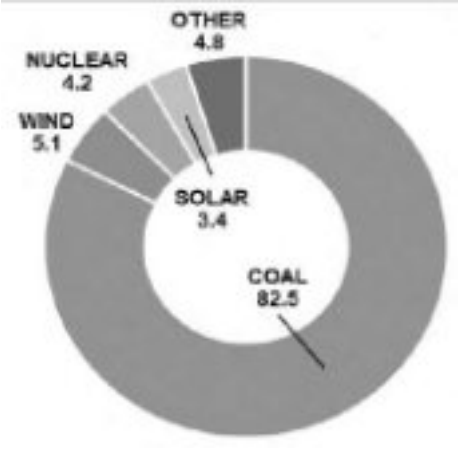
2.1.5 Solar

2.1.6 Biofuel

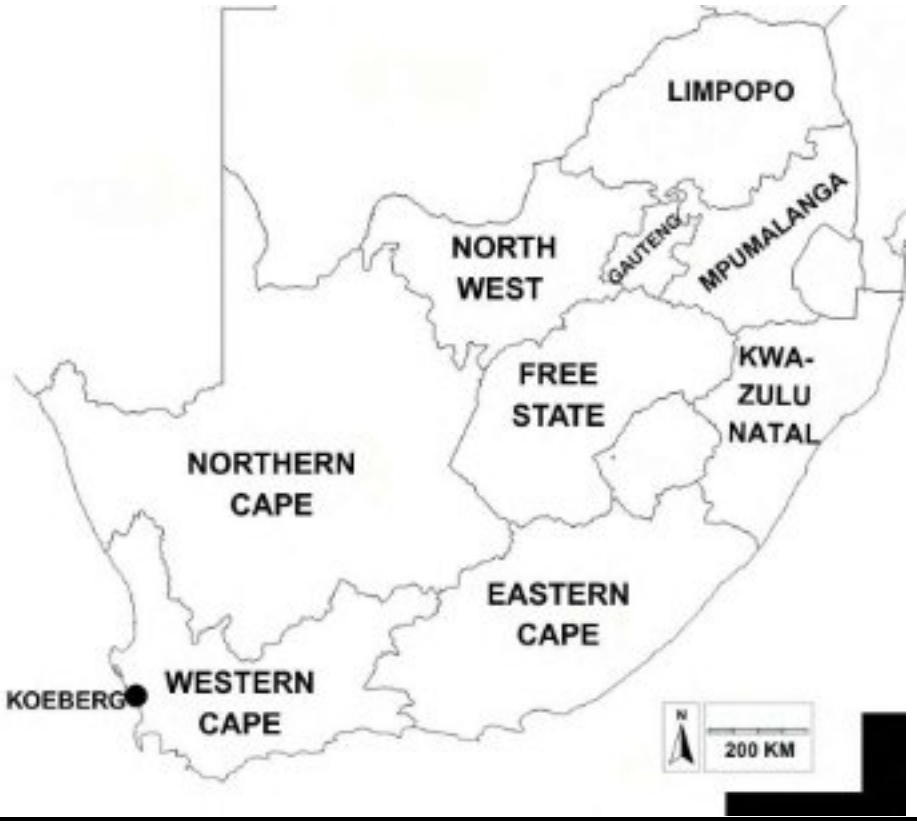
2.1.7 Hydro

(7 x 1) (7)

2.2 Refer to the infographic on nuclear energy in South Africa. Complete the statements in COLUMN A with the options in COLUMN B. Write only **Y** or **Z** next to the question numbers (2.2.1 to 2.2.8) in the ANSWER BOOK, for example 2.2.9 Z.

NUCLEAR ENERGY GENERATION IN SA (BILLION KILOWATT/HOUR)	SOUTH AFRICA'S ENERGY SOURCES (%)
[Adapted from //www.theglobaleconomy.com]	 [Adapted from https: //www.dmre.gov.za/]

SOUTH AFRICA'S NUCLEAR POWER STATION



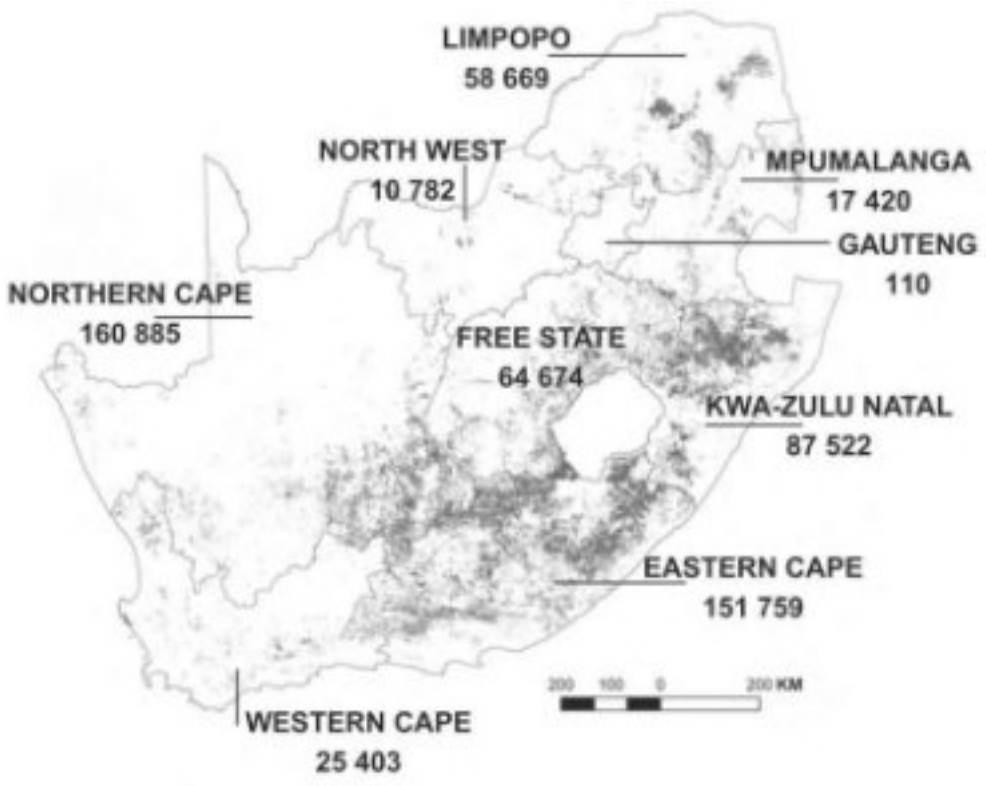
[Adapted from https://world-nuclear.org/]

	COLUMN A		COLUMN B
2.2.1	The generation of nuclear energy in South Africa (2022–2024) shows a … trend.	**Y** **Z**	decreasing increasing
2.2.2	Nuclear energy contributes … % to South Africa's total energy supply.	**Y** **Z**	4,2 82,5
2.2.3	Nuclear energy is produced by the fission of … atoms.	**Y** **Z**	carbon uranium
2.2.4	An advantage of nuclear energy is that it is a … -carbon energy source.	**Y** **Z**	low high
2.2.5	South Africa's only nuclear power plant is located in the ... province.	**Y** **Z**	Northern Cape Western Cape
2.2.6	Nuclear power is a … energy source.	**Y** **Z**	renewable non-renewable
2.2.7	The nuclear power plant produces electricity that is fed into the national grid operated by …	**Y** **Z**	Eskom Koeberg
2.2.8	A disadvantage of using nuclear energy is the …	**Y** **Z**	high operational costs radioactive waste

(8 x 1) (8)

2.3 Refer to the map and extract below based on soil erosion in South Africa.

SOIL EROSION (IN HECTARES) PER PROVINCE



Although soil erosion is a natural process worsened by climate change, human activities such as overgrazing, deforestation and poor farming practices accelerate erosion. Agricultural intensification often removes natural vegetation, exposing soil to erosion.

As soil forms very slowly, it is considered a non-renewable resource and its loss reduces productivity and threatens food security. South Africa's average soil loss rate is 12,6 tons per hectare annually, while the natural formation rate is approximately 4,9 tons per hectare per year. This imbalance highlights the urgent need for better land management efforts.

[Adapted from https://www.grainsa.co.za/soil-erosion-in-south-africa]

2.3.1 From the map, identify the province that is most severely affected by erosion. (1 x 1) (1)

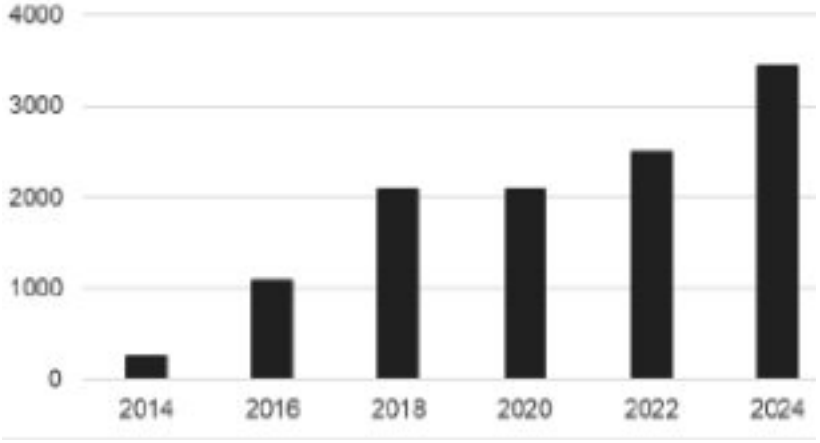
2.3.2 Quote evidence from the passage, that shows soil loss exceeds soil formation in South Africa. (1 x 2) (2)

2.3.3 What is the negative economic impact of reduced soil quality for farmers? (2 x 2) (4)

2.3.4 In a paragraph of about EIGHT lines, suggest sustainable strategies that farmers could use to reduce soil erosion. (4 x 2) (8)

2.4 Refer to the graph and extract on wind energy in South Africa.

TOTAL WIND ENERGY (MW) IN SOUTH AFRICA (2014–2024)



[Adapted from biznews.com/energy/south-africas-wind-power-surge]

COOKHOUSE WIND FARM

Investment in and development of wind power in South Africa have increased due to South Africa's rising electricity demand. The Cookhouse Wind Farm in the Eastern Cape is an ideal site for wind energy because of its low population density, plateau landscape and strong average wind speeds, factors that allow wind turbines to be installed with minimal disruption to farming and nearby settlements. Occupying only a small portion of leased land, the farm generates approximately 341,000 MWh of energy annually. Beyond energy production, the Cookhouse Wind Farm makes a meaningful contribution to the community and local economy.

[Adapted from https://cookhousewind.co.za]

2.4.1 Wind energy is classified as (renewable / non-renewable). (1 x 1) (1)

2.4.2 What trend does the graph indicate about wind energy in South Africa from 2014 to 2024? (1 x 1) (1)

2.4.3 According to the extract, to what can the trend (answer to QUESTION 2.4.2) be attributed? (1 x 1) (1)

2.4.4 From the extract, state TWO physical (natural) factors that promoted the development of the wind farm in Cookhouse. (2 x 1) (2)

2.4.5 What are the environmental advantages of using wind energy? (2 x 2) (4)

2.4.6 Explain how the Cookhouse Wind Farm benefits the local community socially, beyond energy production. (3 x 2) (6)

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2.5 Refer to the extract on energy management in South Africa.

SOUTH AFRICA'S CLIMATE CHANGE ACT: A GREENER FUTURE

Adopted on 18 July 2024, South Africa's Climate Change Act marks a major turning point in the country's move towards a greener economy. The Act sets an ambitious target: achieving net-zero greenhouse gas (GHG) emissions by 2050. It introduces a multi-tiered governance model that clearly defines responsibilities across different levels of government. Additionally, the Act sets sector-specific GHG reduction targets, encouraging businesses to adopt cleaner practices. This shift is expected to attract both local and international investment ─ particularly in renewable energy sectors such as solar and wind ─ while also strengthening energy security and reducing dependence on coal. At the individual level, the Act promotes energy-conscious living.

[Adapted from www.south-africas-climate-change-act-paradigm-shift-energy]

2.5.1 According to the extract, what is the main target of South Africa's Climate Change Act? (1 x 1) (1)

2.5.2 From the extract, identify who will be key to reaching this target (answer to QUESTION 2.5.1). (2 x 1) (2)

2.5.3 In what way does South Africa's Climate Change Act hope to strengthen energy security in South Africa? (1 x 2) (2)

2.5.4 How will a reduced dependence on coal positively impact the environment? (2 x 2) (4)

2.5.5 Explain the economic challenges that South Africa faces in fully transitioning (changing) to a greener economy. (3 x 2) (6)

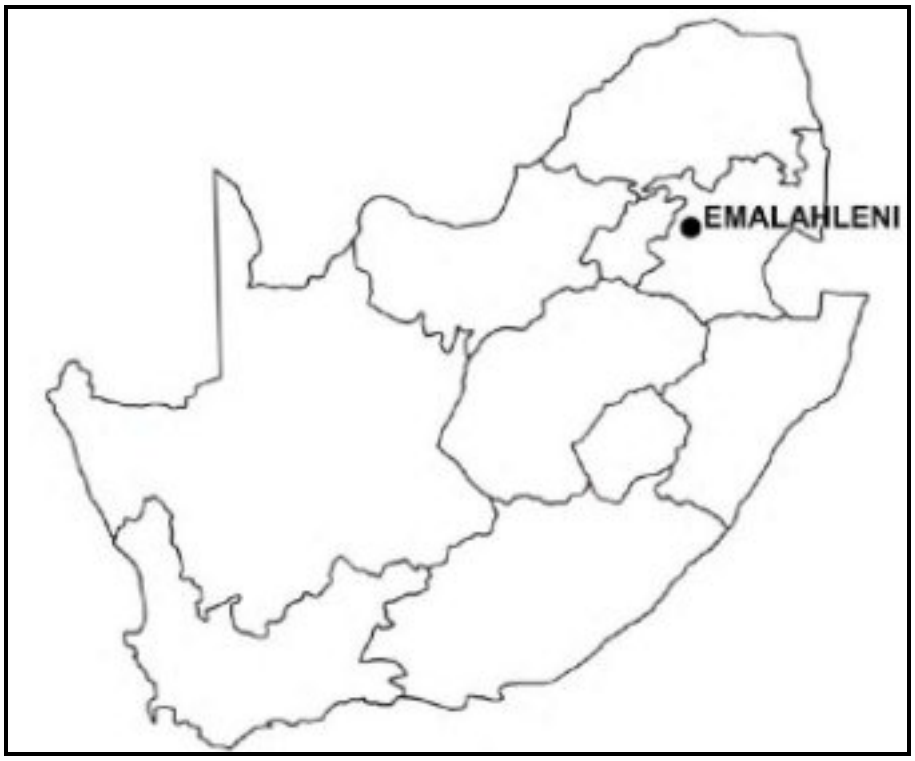
[60]

TOTAL SECTION A: 120

SECTION B

QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

GENERAL INFORMATION ON EMALAHLENI



Coordinates: 25°52′22”S; 29°15′19”E

Emalahleni, formerly known as Witbank, is a city in Mpumalanga whose name is derived from the Nguni language, means “place of coal”. It is one of South Africa’s major coal-mining hubs. The city is home to several large Eskom coal-fired power stations that contribute significantly to the country’s electricity supply. Emalahleni also benefits from a well-developed transport infrastructure, with railway lines connecting it to Pretoria and the Maputo Port in Mozambique. Additionally, the convergence of the N4 and N12 highways supports the efficient transport of coal and other goods.

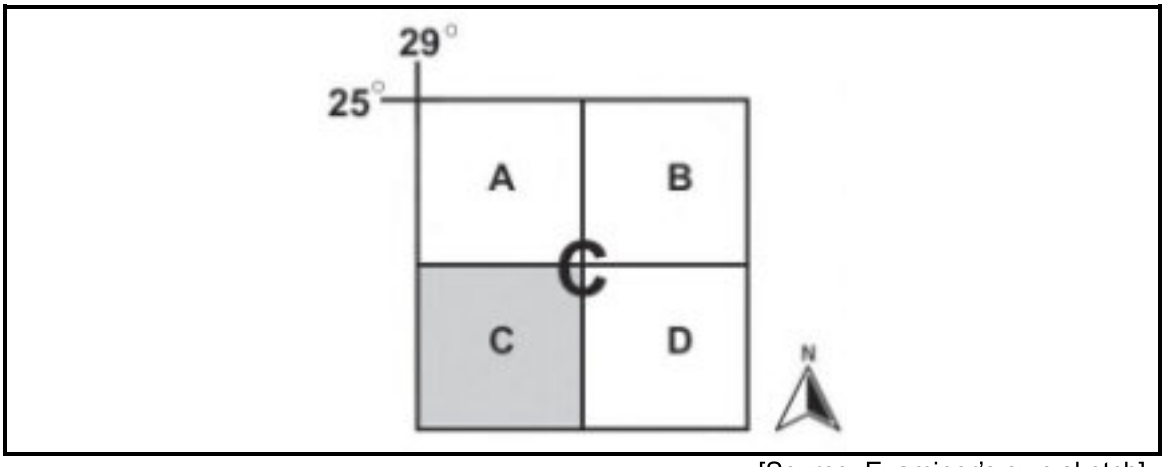
The following English term and their translations are shown on the topographical map:

ENGLISH	AFRIKAANS
Conveyor Belt	Vervoerband
Diggings	Uitgrawings
Opencast Mine	Oopgroefmyn
Slimes Dams	Slykdamme
Stadium	Stadion

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3.1 MAPWORK SKILLS AND CALCULATIONS

Refer to the topographical map and the orthophoto map. Choose the answer and write only the letter (A–D) next to the question numbers (3.1.1 and 3.1.2) in the ANSWER BOOK, for example 3.1.3 A.



[Source: Examiner's own sketch]

3.1.1 In the map reference **2529 CC**, what does the **25** represent?

A Degrees south of the equator
B Minutes south of the equator
C Degrees east of the Greenwich Meridian
D Degrees north of the equator (1)

3.1.2 Which sheet will be directly to the east of the **2529 CC** map?

A 2529 BC
B 2529 BB
C 2529 CD
D 2529 DC (1)

3.1.3 Calculate the area (m²) of the reservoir at **R** in block **B1** and **B2** on the orthophoto map.

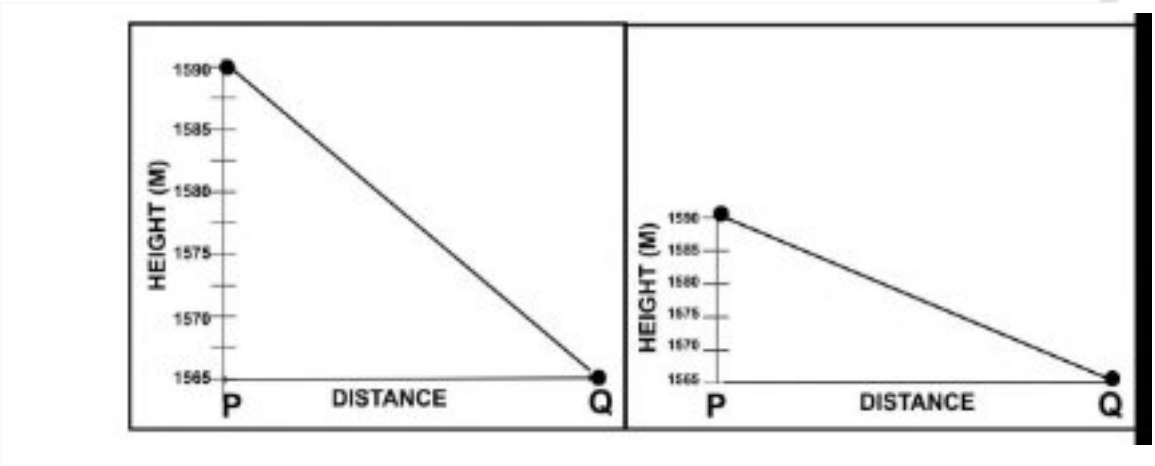
Use the following information:
Length = 0,9 cm
Breadth = 0,9 cm

Formula: **Area = Length (L) x Breadth (B)** (2 x 1) (2)

3.1.4 Why does the reservoir appear bigger on the orthophoto map compared to the same reservoir on the topographical map in block **C5**? (1 x 2) (2)

Refer to **P** and **Q** on the orthophoto map and the cross sections (**X** and **Y**) below to answer QUESTIONS 3.1.5 to 3.1.7.

CROSS SECTION X **CROSS SECTION Y**



3.1.5 What is the contour interval of the orthophoto map? (1 x 1) (1)

3.1.6 Determine the vertical interval (VI) between **P** in block **E3** and **Q** in block **D3.** (1 x 2) (2)

3.1.7 The vertical exaggeration of cross section **X** is … than that of cross section **Y** which makes the slope appear …

(i) greater
(ii) smaller
(iii) steeper
(iv) gentler

A (i) and (iv)
B (ii) and (iv)
C (i) and (iii)
D (ii) and (iii) (1 x 1) (1)

3.2 MAP INTERPRETATION

Refer to the topographical map to answer QUESTIONS 3.2.1 to 3.2.4.

3.2.1 (Coal / Platinum) is the main mineral mined in Emalahleni. (1 x 1) (1)

3.2.2 Identify evidence of mining activity in block **B1.** (2 x 1) (2)

3.2.3 In what way could mining activity in block **B1** negatively affect the residents of Coronation Village and KwaGuqa? (2 x 1) (2)

3.2.4 Explain the positive impact that well-developed rail and road infrastructure has had on the mining industry in Emalahleni. (2 x 2) (4)

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Refer to the area demarcated by **S** in blocks **A3** and **A4** on the topographical map to answer QUESTIONS 3.2.5 and 3.2.6.

3.2.5 A human factor that could have contributed to the soil erosion:

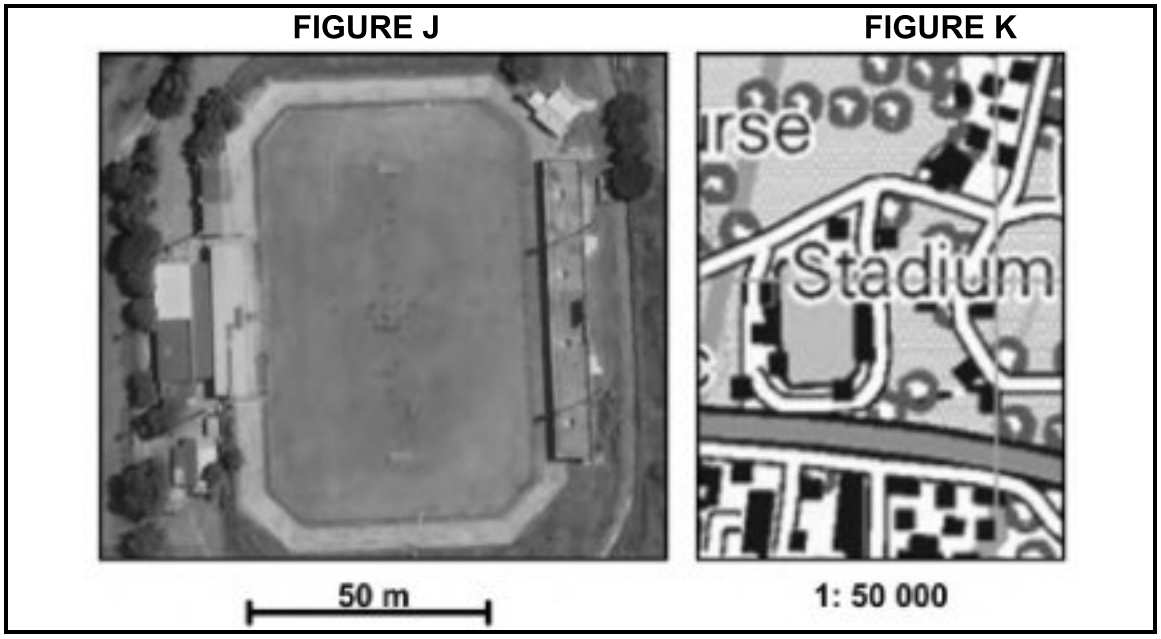
A Heavy rain
B Flooding
C Deforestation
D Strong wind (1 x 1) (1)

3.2.6 How can the soil erosion along the river banks negatively impact the quality of the river water? (2 x 1) (2)

3.3 GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

FIGURE **J** is an aerial photograph of the Puma Stadium. FIGURE **K** shows the Puma Stadium as indicated on the topographical map (blocks **C3** and **D3**). Use both the photographs and the topographical map to answer the questions.

FIGURE J **FIGURE K**



3.3.1 Classify the following data about the stadium as either *attribute* or *spatial* data.

(a) 25°53'02"S; 29°12'48"E

(b) Puma Stadium (2 x 1) (2)

3.3.2 FIGURE **J** shows data collected by a satellite using the process of …

A remote sensing.
B data manipulation.
C observation.
D data integration. (1 x 1) (1)

3.3.3 FIGURE **J** is a(n) … aerial photograph showing the stadium at a (n) … angle.

(i) oblique
(ii) vertical
(iii) 90°
(iv) 30°

A (i) and (iii)
B (i) and (iv)
C (ii) and (iv)
D (ii) and (iii) (1 x 1) (1)

3.3.4 FIGURE **J** represents (vector / raster) data. (1 x 1) (1)

3.3.5 Give a reason for the answer to QUESTION 3.3.4. (1 x 2) (2)

3.3.6 What type of feature is used to represent the two-dimensional shape of the stadium in FIGURE **K**? (1 x 1) (1)

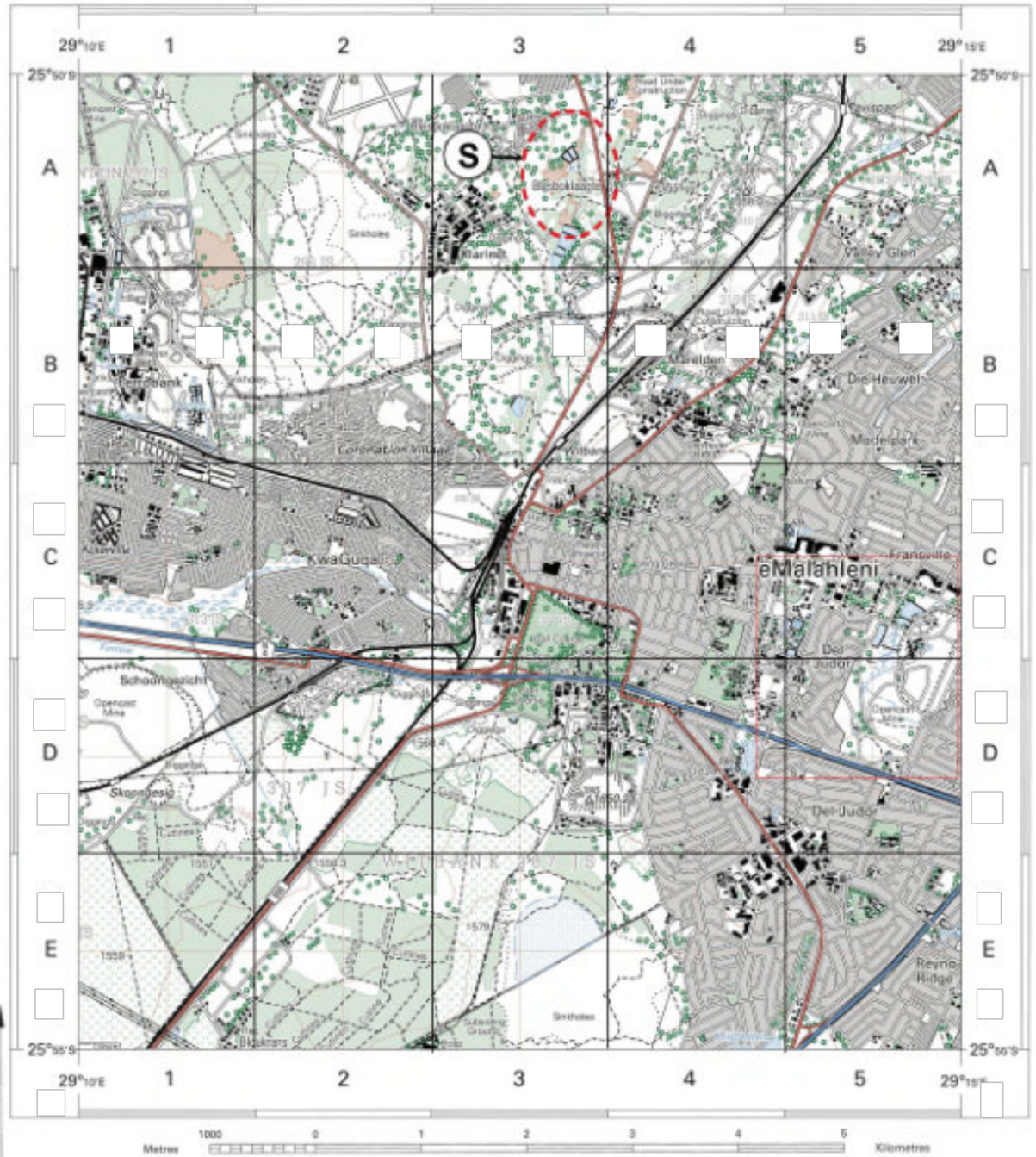
[30]

TOTAL SECTION B: 30
GRAND TOTAL: 150

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EXTRACT FROM 2529CC EMALAHLENI

1:50 000



CONTOUR INTERVAL 20 METRES

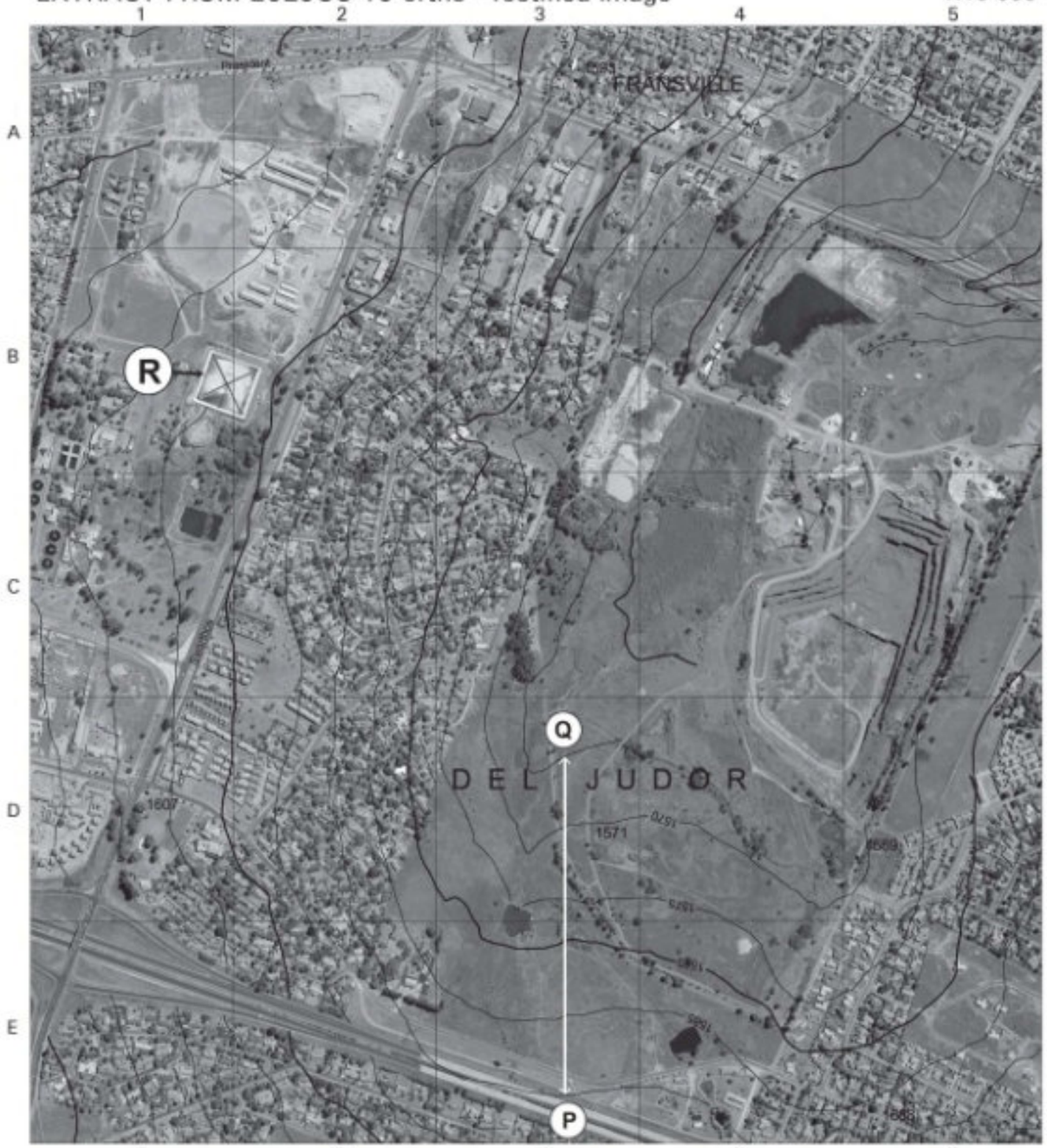
Mean magnetic declination 18°19' West of True North (July 2014).
Mean annual change 5' westwards (July 2014 - June 2015).

REFERENCE

- National Freeway; National Route
- Arterial Route
- Main Road
- Secondary Road; Bench Mark
- Other Road
- Track and Hiking Trail
- Railway; Station or Siding
- Other Railway; Tunnel
- Embankment; Cutting
- Power Line
- Built-up Area (High, Low Density)
- Buildings; Ruins
- Post Office; Police Station; Store
- Place of Worship; School; Hotel
- International Boundary and Beacon
- Provincial Boundary
- Protected Area
- Perennial River
- Perennial Water
- Non-perennial River
- Non-perennial Water
- Dry Water Course
- Dry Pan
- Marsh and
- Pipeline (above ground)
- Water Tower; Reservoir; Water Point
- Coastal Rocks
- Prominent Rock Outcrop
- Fence; Wall
- Windpump; Monument
- Communication Tower
- Mine Dump; Excavation
- Trigonometrical Station; Marine Beacon
- Lighthouse and Marine Light
- Cemetery; Grave
- Erosion; Sand
- Woodland
- Cultivated
- Orchard or Vineyard
- Recreation Ground
- Row of Trees
- Original Farms

EXTRACT FROM 2529CC 15 ortho - rectified image

1:10 000



1:10000 KONTOERTUSSENRUIMTE 5 METER

VERKLARING

- Nasionale Deurpad; Nasionale Roete
- Hoofverkeersroete
- Hoofpad
- Sekondêre Pad; Hoogtemerk
- Ander Pad; Brug
- Dowwe Pad en Voetslaanpad
- Spoorweg; Stasie of Sylyn
- Ander Spoorweg; Tonnel
- Opvulling; Deurgrawing
- Kraglyn
- Beboude Gebied (Hok, Lae Digtheid)
- Gebouw; Murasie
- Poskantoor; Polisiestasie; Winkel
- Plek van Aanbidding; Skool; Hotel
- Internasionale Grens en Baken
- Provinsiale Grens
- Bewarings Gebied
- Standhoudende Rivier
- Standhoudende Water
- Nie-standhoudende Rivier
- Nie-standhoudende Water
- Droë Loop
- Droë Pan
- Moeras en Vlei
- Pyplyn (bo die grond)
- Watertoring; Reservoir; Waterpunt
- Kuslynrotse
- Prominente Klipbank
- Draadheining; Muur
- Windpomp; Monument
- Kommunikasietoring
- Mynhoop; Uitgrawing
- Peilbaken; Seevaartbaken
- Vuurtoring en Seevaartlig
- Begraafplaas; Graf
- Erosie; Sand
- Beboste Gebied
- Bewerkte Land
- Boord of Wingerd
- Ontspanningsterrein
- Rye Bome
- Oorspronklike Plase