GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

PREPARATORY EXAMINATION

2025

10782

GEOGRAPHY

(PAPER 2)

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GEOGRAPHY: Paper 2

10782E

TIME: 3 hours

MARKS: 150

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23 pages

MAP AT THE END

X05

INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO sections.

   SECTION A
   QUESTION 1: RURAL AND URBAN SETTLEMENT (60)
   QUESTION 2: ECONOMIC GEOGRAPHY OF SOUTH AFRICA (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 at the top of a NEW page.
6. Number the answers 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 topographic map 2727CA KROONSTAD and a 1 : 10 000 orthophoto map 2727 CA 22 are provided.
15. The area demarcated in RED ink on the topographical map represents the area covered by the orthophoto map.
16. Show ALL calculations. Marks will be allocated for steps in calculations.
17. You must hand in the topographical and orthophoto maps to the invigilator at the end of this examination session.

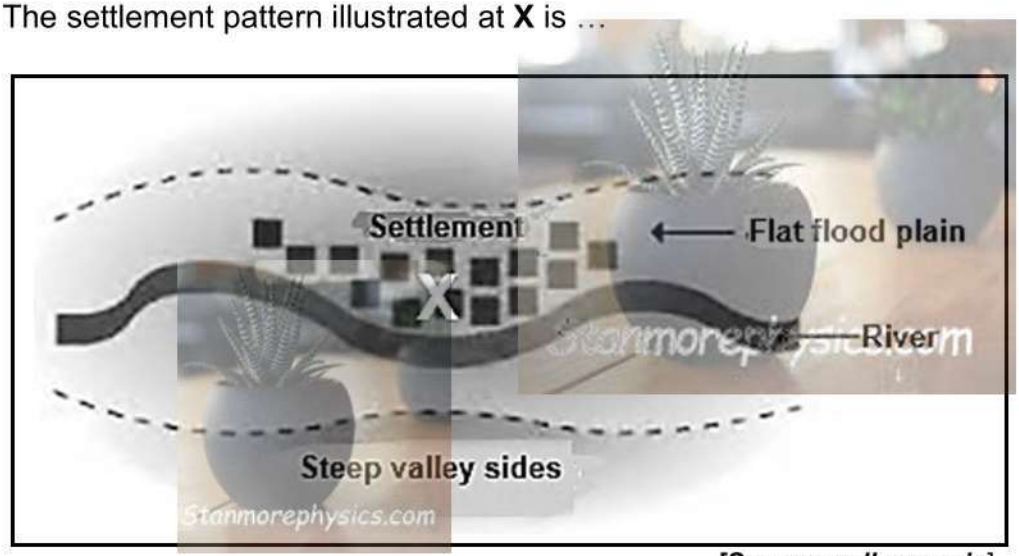
SECTION A: RURAL AND URBAN SETTLEMENTS AND THE ECONOMIC GEOGRAPHY OF SOUTH AFRICA

QUESTION 1: RURAL AND URBAN SETTLEMENTS

1.1 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 (1.1.1 to 1.1.7) in the ANSWER BOOK, e.g. 1.1.8 A.

Refer to the sketch below and answer the questions that follow.

1.1.1 The settlement pattern illustrated at **X** is …



[Source: *rnlkwc.ac.in*]

A linear.
B dispersed.
C nucleated.
D gap.

1.1.2 The settlement shape illustrated at **X** is …

A linear.
B dispersed.
C nucleated.
D cross.

1.1.3 The settlement, **X** in the sketch is a … point settlement as it is … to/from a water source.

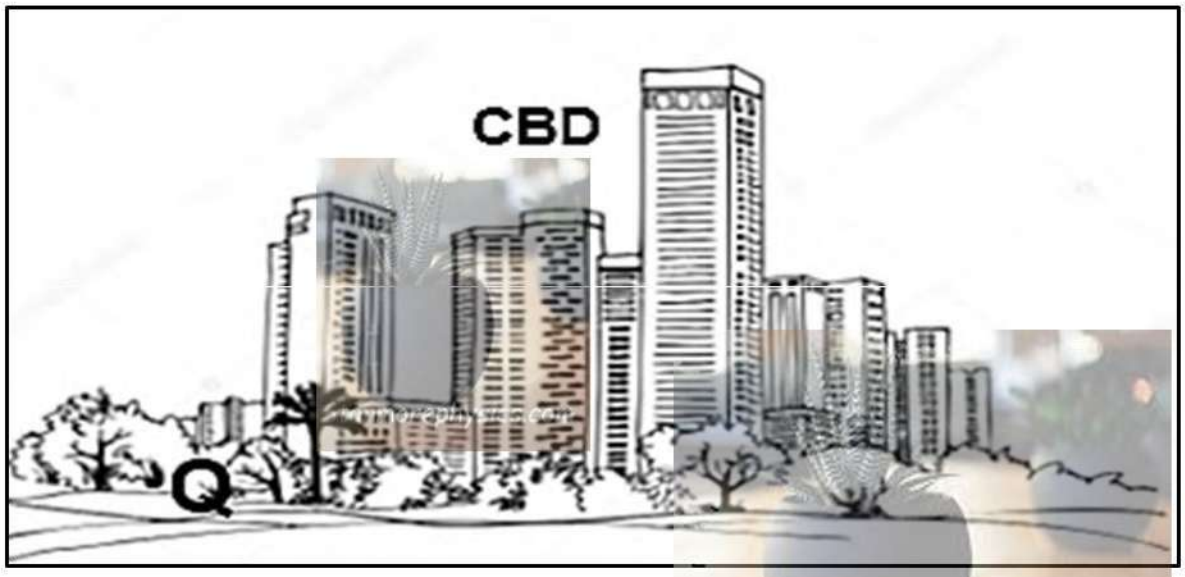
A dry; close
B dry; far
C wet; close
D wet; far

1.1.4 The factors affecting the site of the settlement illustrated at **X** are …

(i) roads.
(ii) fuel.
(iii) relief.
(iv) water.

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

Refer to the illustration below and answer the questions that follow.



[Adapted from deposit photos]

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1.1.5 The illustration above shows how a city looks from the side.
The concept illustrated is …

A invasion and succession.
B facadism.
C pollution dome.
D urban profile.

1.1.6 The CBD refers to the Central Business District and is a land-use zone. A land-use zone is defined as …

A the multi-functional settlement also referred to as the city.
B an area within an urban settlement with a particular function.
C the side view of the urban area.
D an area reserved for conservation surrounding the city.

1.1.7 The area labelled **Q** surrounds the city and is called a greenbelt. The greenbelt is made up of …

(i) trees on roof top parking areas.
(ii) parks.
(iii) open fields.
(iv) industrial areas.

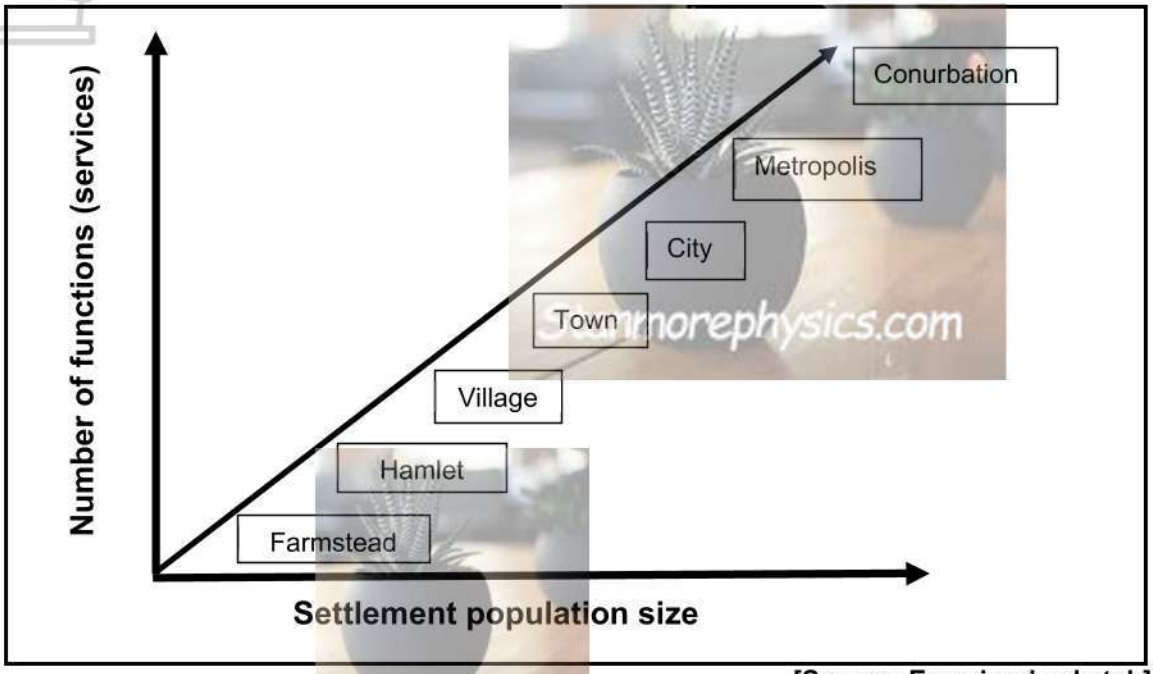
A (i) and (ii)
B (i) and (iii)
C (ii) and (iii)
D (iii) and (iv)



(7 x 1) (7)

1.2 Choose the correct concept to make the statements TRUE. Write only the word(s) next to the question numbers (1.2.1 to 1.2.8) in the ANSWER BOOK, e.g. 1.2.9 Mining.

Refer to the diagram below and answer QUESTIONS 1.2.1 to 1.2.5.



[Source: Examiner's sketch]

1.2.1 The diagram above illustrates an (urban profile/urban hierarchy).

1.2.2 A (conurbation/city) is a large urban area where several towns have joined together. e.g. West Rand-Johannesburg-East Rand.

1.2.3 The smallest settlement in the diagram is a (farmstead/hamlet)

1.2.4 The (town/city) has a larger sphere of influence.

1.2.5 The (city/metropolis) has more high-order services.

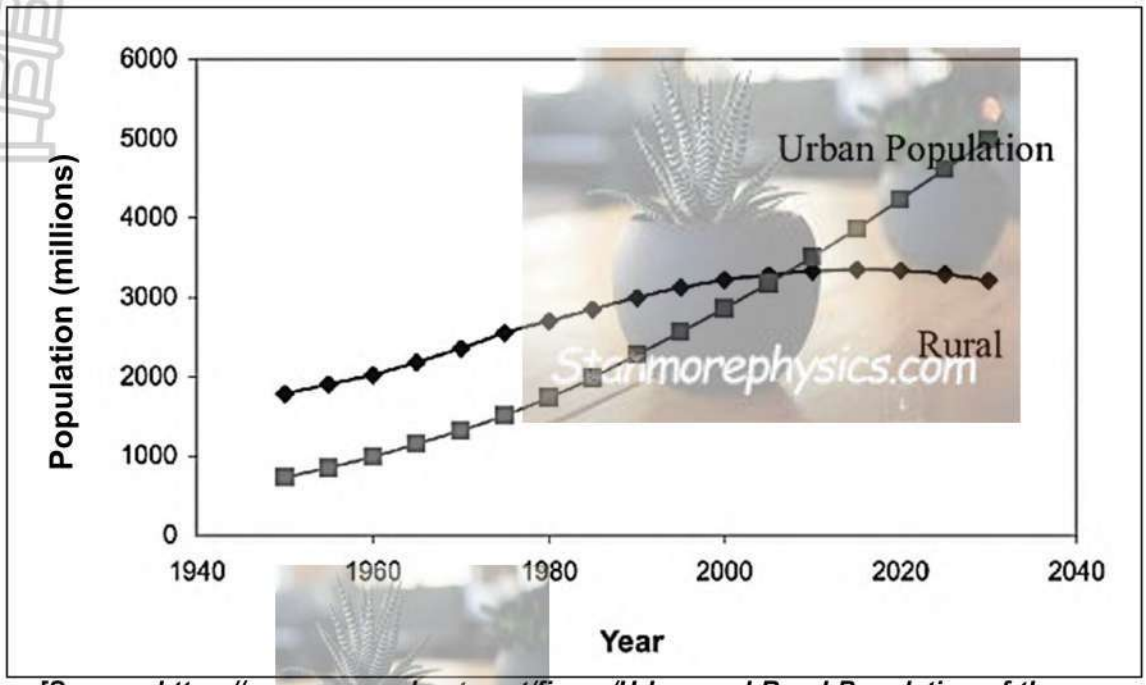
Choose a term/concept from COLUMN B that matches the description in COLUMN A. Write only the letter (**Y** or **Z**) next to the question numbers (1.2.6 to 1.2.8) in the ANSWER BOOK, e.g. 1.2.9 Y.

	COLUMN A		COLUMN B
1.2.6	The minimum number of people required to support a business	**Y** **Z**	market area threshold population
1.2.7	The maximum distance a customer is willing to travel to buy something at a central place	**Y** **Z**	range market area
1.2.8	Old buildings in a city are not maintained and painted, decay sets in, and this is termed …	**Y** **Z**	urban blight urban renewal

(8 x 1) (8)



1.3 Refer to the information below and answer the questions that follow.



[Source: *https://www.researchgate.net/figure/Urban-and-Rural-Population-of-the-World- 1950-2030-Source-UN-2005_fig2_310763525*]



[Source: *geographycatsite.wordpress.com*]

1.3.1 Define the term *rural depopulation*. (1 x 2) (2)

1.3.2 According to the graph, what is the general trend in urban population from 1960 to 2024? (1 x 1) (1)

1.3.3 State the economic reason, evident in the cartoon, for the couple leaving the rural area. (1 x 2) (2)

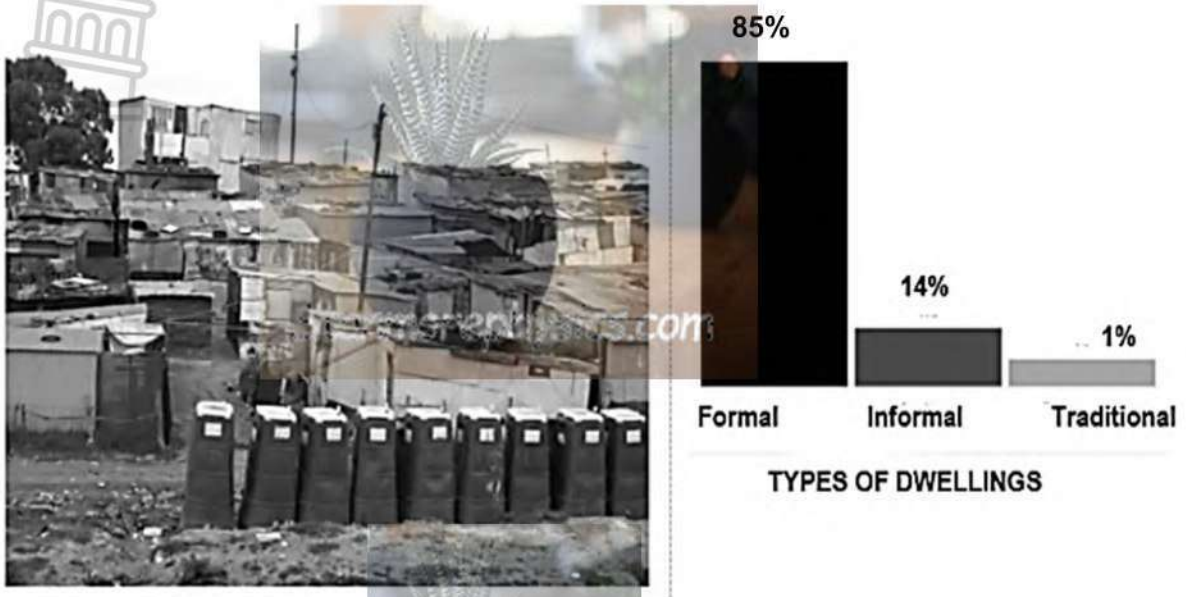
1.3.4 Identify TWO pull factors illustrated in the cartoon. (2 x 1) (2)

1.3.5 Describe the social impact of rural depopulation on the rural areas, as stated in the cartoon. (1 x 2) (2)

1.3.6 Discuss how land reform may help to reduce rural depopulation. (3 x 2) (6)



1.4 Refer to the infographic below on informal settlements and answer the questions that follow.



FIRES IN KHAYELITSHA

CAPE TOWN – One of the worst informal settlement fires in the history of Cape Town took place in the sprawling township of Khayelitsha. As more people migrate to the country's towns and cities, new informal settlements regularly spring up unannounced. The high density of these urban areas, combined with the flammability of the materials used to build in them, make spontaneous and rapidly spreading fires a constant threat. At least five people died and over 4 000 were left homeless in Khayelitsha in the early hours of 1 January when a wall of fire, fuelled by strong winds, tore through an informal settlement known as BM Section. Over a thousand shacks were burned to the ground.

[Adapted from *https://reliefweb.int/report/south-africa/south-africa-searches-solutions-shack-fires*]

1.4.1 According to the infographic, what percentage of South Africans live in informal settlements? (1 x 1) (1)

1.4.2 What is the main reason for the development of informal settlements, as stated in the infographic? (1 x 2) (2)

1.4.3 The local municipality has assisted the community living in informal settlements, by providing them with basic services. Provide evidence from the photo to support this statement. (1 x 2) (2)

1.4.4 According to the extract, what are the reasons for the frequent spread of fires in informal settlements? (2 x 1) (2)

1.4.5 In a paragraph of approximately EIGHT lines, suggest initiatives that the national government can implement to reduce the number of informal settlements in South Africa. (4 x 2) (8)

1.5 Refer to the article on the water crisis in Gauteng and answer the questions that follow.

JOHANNESBURG WATER CRISIS: WHAT TO EXPECT IN 2025

[The Citizen, By Enkosi Selane Journalist, 30 Dec 2024]

Johannesburg faces critical water crisis amid infrastructure collapse.

Johannesburg has experienced numerous water issues this year and an expert predicts that these problems are likely to spill over into 2025, causing a larger crisis. Among the issues are severe infrastructure challenges and critical water shortages that are pushing the city's water system to its limits. Logan Moonsamy, Johannesburg Water's operations manager, acknowledged the severity of these infrastructure challenges while attempting to reassure the public. During a water service delivery protest in Westbury, Van Dyk the DA's Shadow MMC for Infrastructure, emphasised the need for technical experts rather than political appointees. The current Level 1 water restrictions, effective from 1 September 2024, prohibit the watering of gardens, filling swimming pools, washing cars, and using hosepipes between 6 a.m. and 6 p.m. Adding to the city's challenges, the Lesotho Highlands Water Project (LHWP), which supplies water to approximately one-fifth of South Africa's population, is undergoing crucial maintenance until 31 March 2025. "This means we all have to do everything we can to use water sparingly," warned water expert Carin Bosman.

[Adapted from *https://www.citizen.co.za/news/south-africa/joburgs-water-crisis-what-to-expect-in-2025*]

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1.5.1 According to the article, what is the cause of the water issues in Gauteng? (1 x 1) (1)

1.5.2 Why is it important for the municipality to ensure that people have access to basic services like water? (1 x 2) (2)

1.5.3 According to the article, identify TWO of the water restrictions introduced by the municipality. (2 x 1) (2)

1.5.4 Suggest how the local municipality can assist the local residents during water disruptions. (1 x 2) (2)

1.5.5 In a paragraph of approximately EIGHT lines, suggest strategies on how communities can assist in saving water. (4 x 2) (8)

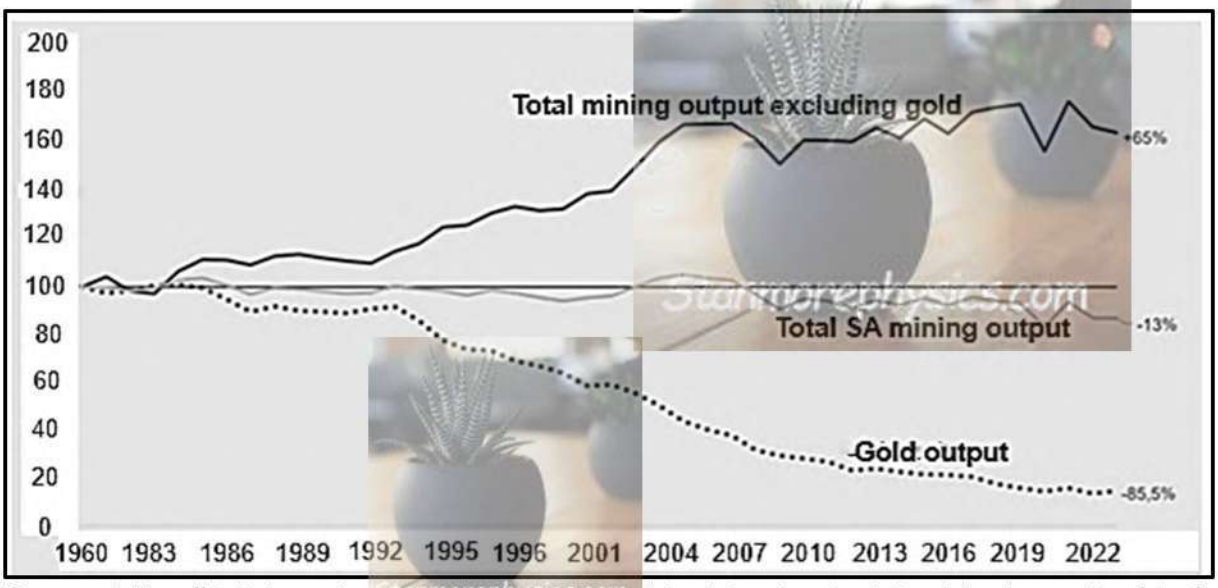
[60]

QUESTION 2: ECONOMIC GEOGRAPHY OF SOUTH AFRICA

2.1 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 (2.1.1 to 2.1.8) in the ANSWER BOOK, e.g. 2.1.9 D.

Refer to the graph below.

GOLD MINING OUTPUT IN SOUTH AFRICA



[Source: *https://dailyinvestor.com/mining/43589/gold-mining-has-lost-its-shine-in-south-africa/*]

2.1.1 Gold mining falls under the … sector of the South African economy.

A primary
B secondary
C tertiary
D quaternary

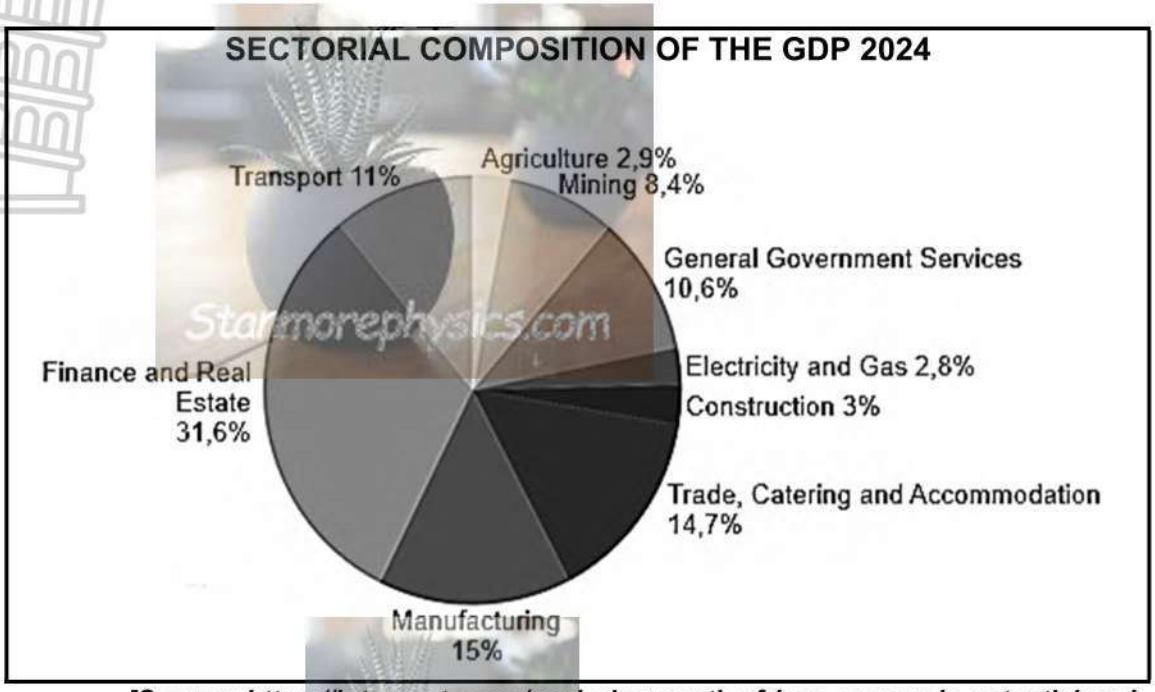
2.1.2 According to the graph, the general trend in gold mining output from 1995 to 2022 is …

A increasing.
B decreasing.
C unchanged.
D above the total mining output.

2.1.3 A possible reason for the trend mentioned in QUESTION 2.1.2 is …

A improvements in mining infrastructure
B rising levels of investments.
C higher demand for gold.
D high levels of worker's unrest.

Refer to the graph below and answer the questions that follow.



[Source: *https://intergest.co.za/exploring-south-africas-economic-potential-and opportunities/*]

2.1.4 The gross domestic product (GDP) is the total value of goods and services produced … the borders of a country during a specific period of time, and … the income of foreign residents.

(i) inside
(ii) outside
(iii) includes
(iv) excludes

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

2.1.5 In the pie graph, the … sector contributed the most to the GDP and the … sector contributed the least.

(i) primary
(ii) secondary
(iii) tertiary
(iv) quaternary

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

2.1.6 The economic sector displayed on the two devices in the image, represents the … sector.



[Source: *https://www.infosysbpm.com/blogs/financial-services/the-impact-of-e-banking-on-customer-satisfaction.html*]

A primary
B secondary
C tertiary
D quaternary

2.1.7 Gold mining promotes … in South Africa.

A poverty
B higher imports
C job creation
D resources

2.1.8 The gold mining industry contributed to the development of secondary and tertiary sectors by means of the … effect.

A multiplier
B industrialisation
C decentralisation
D globalisation (8 x 1) (8)

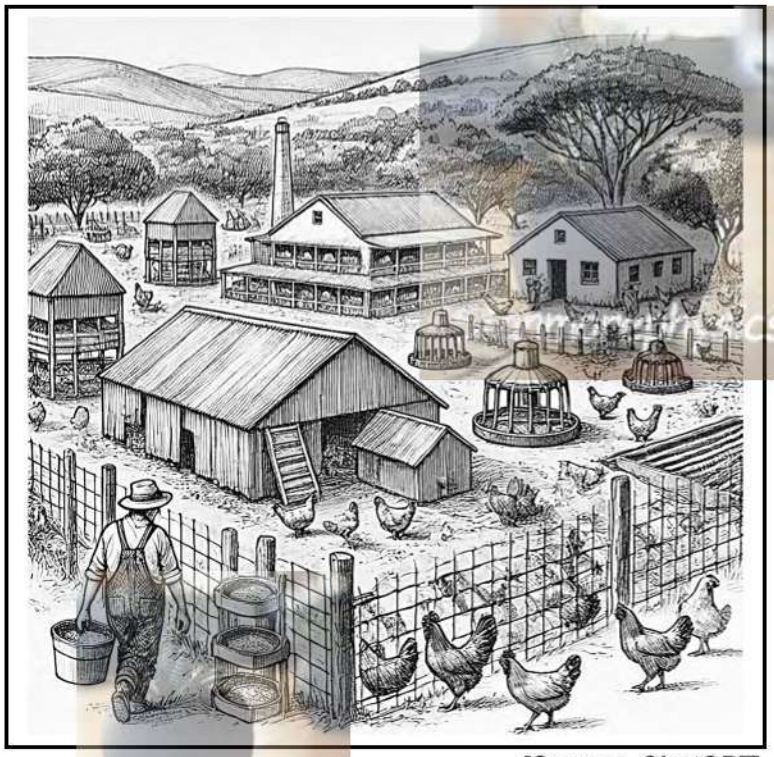
2.2 Choose a term/concept from COLUMN B that matches the description in COLUMN A. Write only the letter (**Y** or **Z**) next to the question numbers (2.2.1 to 2.2.7) in the ANSWER BOOK, e.g. 2.2.8 Z.

COLUMN A		COLUMN B	
2.2.1	Movement of industries into core areas	**Y** **Z**	centralisation decentralisation
2.2.2	Can result in a decrease in rural-urban migration	**Y** **Z**	centralisation decentralisation
2.2.3	Results in the distribution of wealth across the country	**Y** **Z**	centralisation decentralisation
2.2.4	Can cause a strain on physical infrastructure	**Y** **Z**	centralisation decentralisation
2.2.5	Results in reduced congestion	**Y** **Z**	centralisation decentralisation
2.2.6	Can cause higher levels of pollution and environmental degradation in core regions	**Y** **Z**	centralisation decentralisation
2.2.7	Can result in increased transport costs on the final products	**Y** **Z**	centralisation decentralisation

(7 x 1) (7)

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2.3 Refer to the sketch below on small-scale farming and answer the questions that follow.



[Source: *ChatGPT*]

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2.3.1 Define the term *small-scale farming*. (1 x 2) (2)

2.3.2 Give evidence from the sketch, that small scale farming is practised. (1 x 1) (1)

2.3.3 Discuss TWO challenges that small-scale farmers face. (2 x 2) (4)

2.3.4 Suggest a strategy on how the government can support small-scale farmers. (1 x 2) (2)

2.3.5 Explain the social importance of small-scale farming to communities in South Africa. (3 x 2) (6)

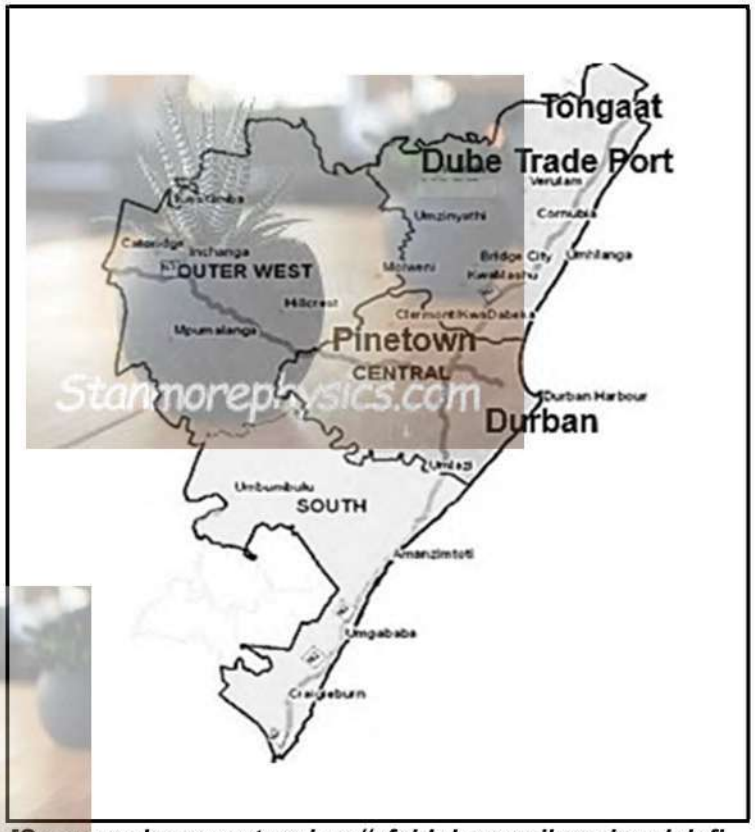
2.4 Refer to the infographic below and answer the questions that follow.

oThongathi, previously and still commonly known as Tongaat, is a town in KwaZulu-Natal, South Africa, located about 40 kilometres north of Durban.

The town is nestled among rolling hills dominated by sugarcane fields, just inland from the coast and is primarily situated south of the uThongathi River.

oThongathi is home to Tongaat Hulett, one of the largest sugar producers in Africa with its headquarters located just outside the town. The company also owns and operates the Maidstone Sugar Mill, situated on the northern banks of the uThongathi River and is one of South Africa's first sugar mills, completed in 1850.

[Source: ***https://en.wikipedia.org/wiki/OThongathi***]



[Source: ***chromeextension://efaidnbmnnnibpcajpcglclefindmkaj/https://isocarp.org/app/uploads/2016/03/Technical-Workshop-7-eThekwini-Dube-Tradeport.pdf***]

2.4.1 Identify the core industrial region on the map. (1 x 1) (1)

2.4.2 For which agricultural product is Tongaat (oThongathi) well-known? (1 x 1) (1)

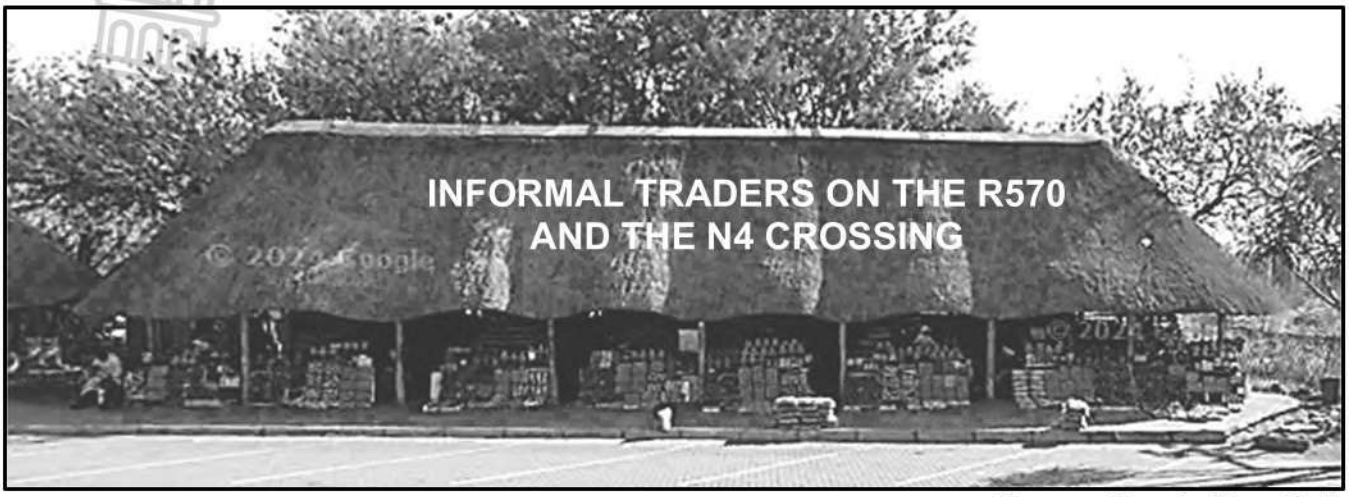
2.4.3 Give a climatic reason for the growing of the agricultural product mentioned in QUESTION 2.4.2 in this area. (1 x 1) (1)

2.4.4 Explain how the Dube Trade Port can be an advantage for the agricultural product grown in Tongaat (oThongathi). (2 x 2) (4)

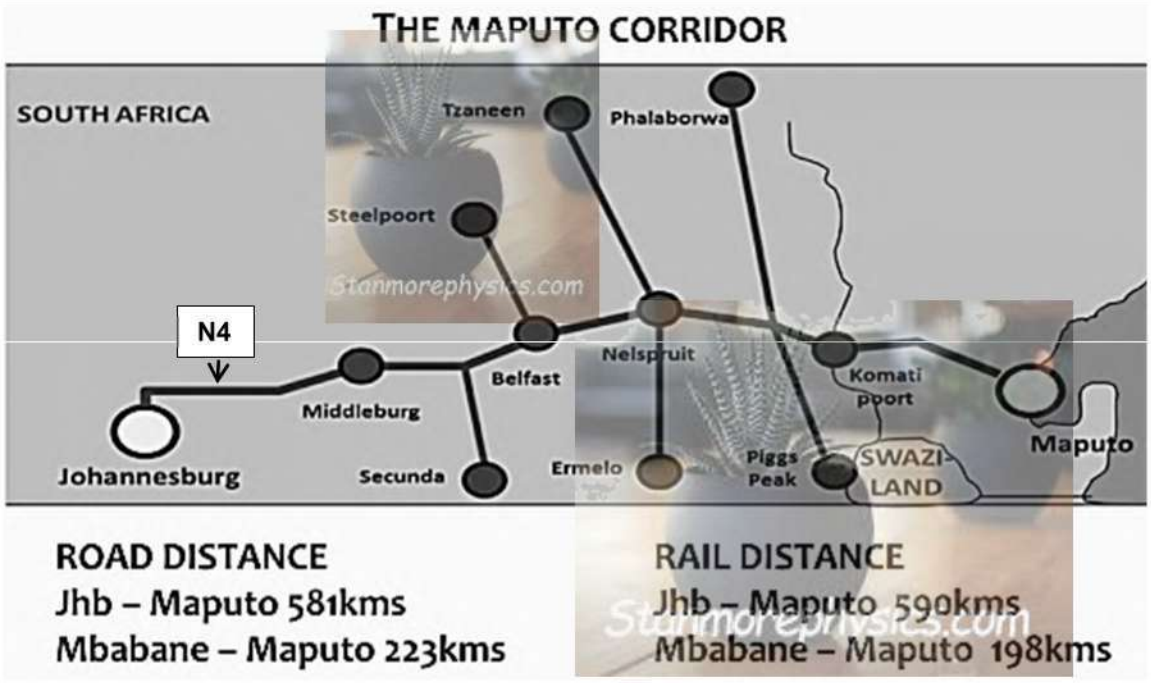
2.4.5 Discuss the economic importance of the agricultural product grown in Tongaat (oThongathi) for the Durban-Pinetown core industrial region. (2 x 2) (4)

2.4.6 How will a natural disaster, e.g. flooding, negatively impact the economy of the Dube Trade Port? (2 x 2) (4)

2.5 Refer to the infographic on the Maputo Corridor Spatial Development Initiative (SDI) below and answer the questions that follow.



[Source: *Google Maps Pro*]



[Source: *https://www.slideshare.net/slideshow/the-maputo-corridor-the-role-of-the-private-and-public-sector-and-opportunities-for-developing-countries/71201497*]

The Maputo Corridor Spatial Development Initiative is a major transportation route that connects the landlocked countries of Southern Africa, Eswatini (formerly Swaziland), and Zimbabwe to the port of Maputo in Mozambique. This strategic corridor is a key trade and logistics route in Southern Africa, facilitating the movement of goods and resources to and from the harbour.

[Source: *ChatGPT*]

2.5 2.5.1 Define the term *Spatial Development Initiative (SDI).* (1 x 2) (2)

2.5.2 Refer to the infographic and quote evidence to explain why the Maputo Corridor can be classified as a Spatial Development Initiative. (1 x 2) (2)

2.5.3 Name ONE transport link mentioned in the infographic. (1 x 1) (1)

2.5.4 Identify ONE of the aims of a Spatial Development Initiative as illustrated in the infographic. (1 x 2) (2)

2.5.5 In a paragraph of approximately EIGHT lines, explain how the Maputo Corridor SDI can improve the lives of people in small towns along the corridor. (4 x 2) (8)

[60]

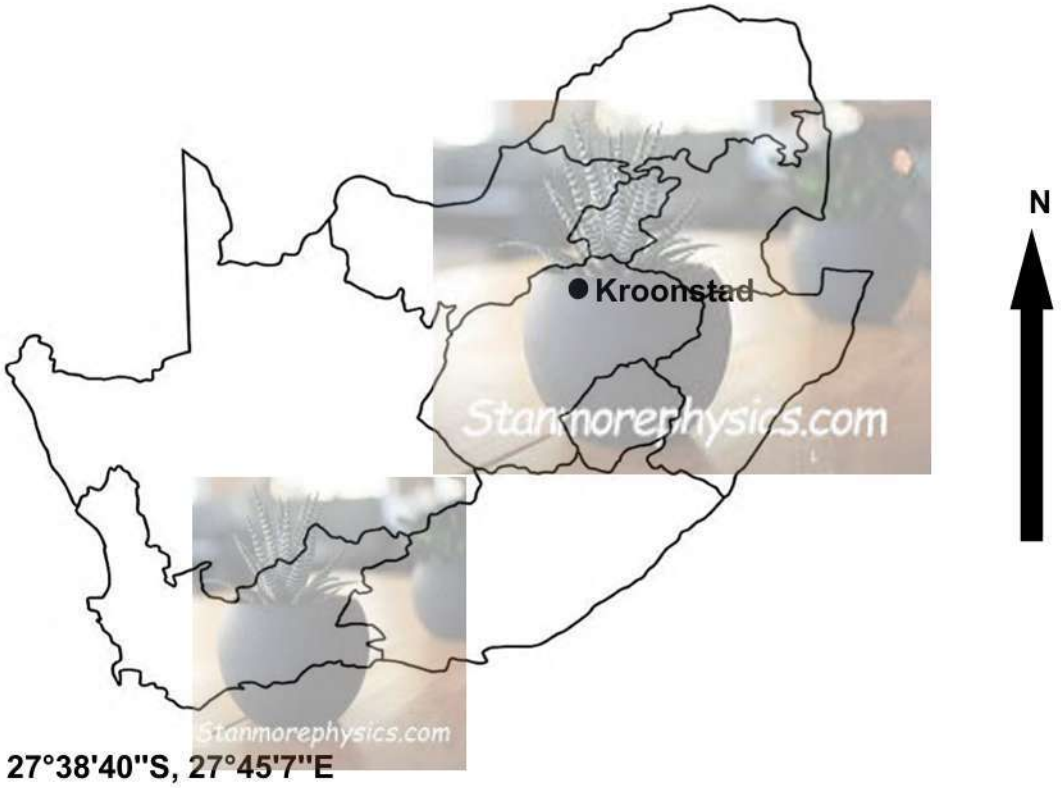
TOTAL SECTION A: 120



SECTION B

QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

BACKGROUND INFORMATION ON KROONSTAD



Coordinates: 27°38'40"S, 27°45'7"E

Kroonstad is a town in South Africa's Free State province. The town is located on the banks of the Vals River, a tributary of the Vaal River. Kroonstad is a busy agricultural and transportation centre. It has marshalling yards, grain elevators, engineering works, and vocational and trade schools. The Kroonstad project is a gold exploration project that could potentially become a new Witwatersrand goldfield. The project has an estimated gold exploration target of between 6,06 million ounces and 62,41 million ounces.

Located about 60 km southwest of Kroonstad, Bambanani was an underground gold mine operated by the Harmony Gold Mining Company. The mine was closed in June 2022 due to increased seismic activity and related risks.

Kroonstad railway station serves the town and is situated on a key railway junction that connects Cape Town to Johannesburg via Bloemfontein.

[Source: *shortlin.com/VP-fjMox*]

ENGLISH	**AFRIKAANS**
Buildings	Geboue
Ruins	Murasie
Monument	Monument
Other road	Ander pad
Railway; Station or Siding	Spoorweg; Stasie of Sylyn
Other railway; Tunnel	Ander spoorweg; Tonnel

3.1 MAP SKILLS AND CALCULATIONS

3.1.1 The scale of the orthophoto map is … times larger than the topographical map scale.

A 25
B 0,5
C 5
D 10 (1 x 1) (1)

3.1.2 Due to the influence of map scale, the features on the topographical map are … than on the orthophoto map.

A small and more detailed
B large and more detailed
C small with less detail
D large with less detail (1 x 1) (1)

3.1.3 The Kroonstad project produces …



A gold.
B platinum.
C iron.
D coal. (1 x 1) (1)

3.1.4 Kroonstad is a …

A junction town.
B resort town.
C industrial town.
D mining town. (1 x 1) (1)

3.1.5 Refer to the topographical map. Name the feature found at the coordinates: 27°39'26"S; 27°12'44"E. (1 x 1) (1)

3.1.6 Provide evidence that the orthophoto was taken before 14h00. (1 x 2) (2)

3.1.7 Calculate the magnetic declination for 2025.

Difference in years: _____

Use the annual change of: 3' W

Total change: _____

Magnetic declination for 2025: _____ (3 x 1) (3)

3.2 MAP INTERPRETATION

Refer to the topographical map.

3.2.1 (a) Identify the street pattern marked as **P** in block **D5**.

A Radial
B Linear
C Gridiron
D Irregular (1 x 1) (1)

(b) The dominant economic activity taking place in block **E3** is classified as …

A primary.
B secondary.
C tertiary.
D quaternary. (1 x 1) (1)

(c) Discuss ONE physical factor, evident on the topographical map, that led to the development of the nucleated settlement pattern in blocks **A3** and **B3**. (1 x 2) (2)

Refer to the row of trees along the R76 in block **A2** on the topographic map.

(d) Explain the function of the row of trees. (1 x 2) (2)

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Refer to the topographical map.

3.2.2 Refer to area marked **R** in block **E5** and area marked **Q** in block **D2**. Provide map evidence to prove that area **R** is the older development compared to area **Q.** (1 x 2) (2)

3.2.3 Refer to Gelukwaarts in block **C1**.

Discuss ONE factor, evident on the topographical map, limiting the expansion of Gelukwaarts in a south-westerly direction. (1 x 2) (2)

Refer to Industria in block **E3** on the topographical map.

3.2.4 Provide evidence from the topographical map to support the statement that Industria is ideally (well) located. (1 x 2) (2)

3.3 GEOGRAPHIC INFORMATION SYSTEMS (GIS)

3.3.1 Define the concept *attribute data*. (1 x 2) (2)

Refer to the orthophoto map.

3.3.2 Name ONE way in which attribute data is represented on the orthophoto. (1 x 2) (2)

Refer to the bridge (**6**) on the orthophoto and in block **E4** on the topographical map.

3.3.3 Provide ONE attribute of the bridge evident on the topographical map. (1 x 2) (2)

Refer to block **A4** on the topographical map.

3.3.4 Draw the symbols for the following features evident in block **A4:**

(a) A point feature
(b) A line feature (2 x 1) (2)

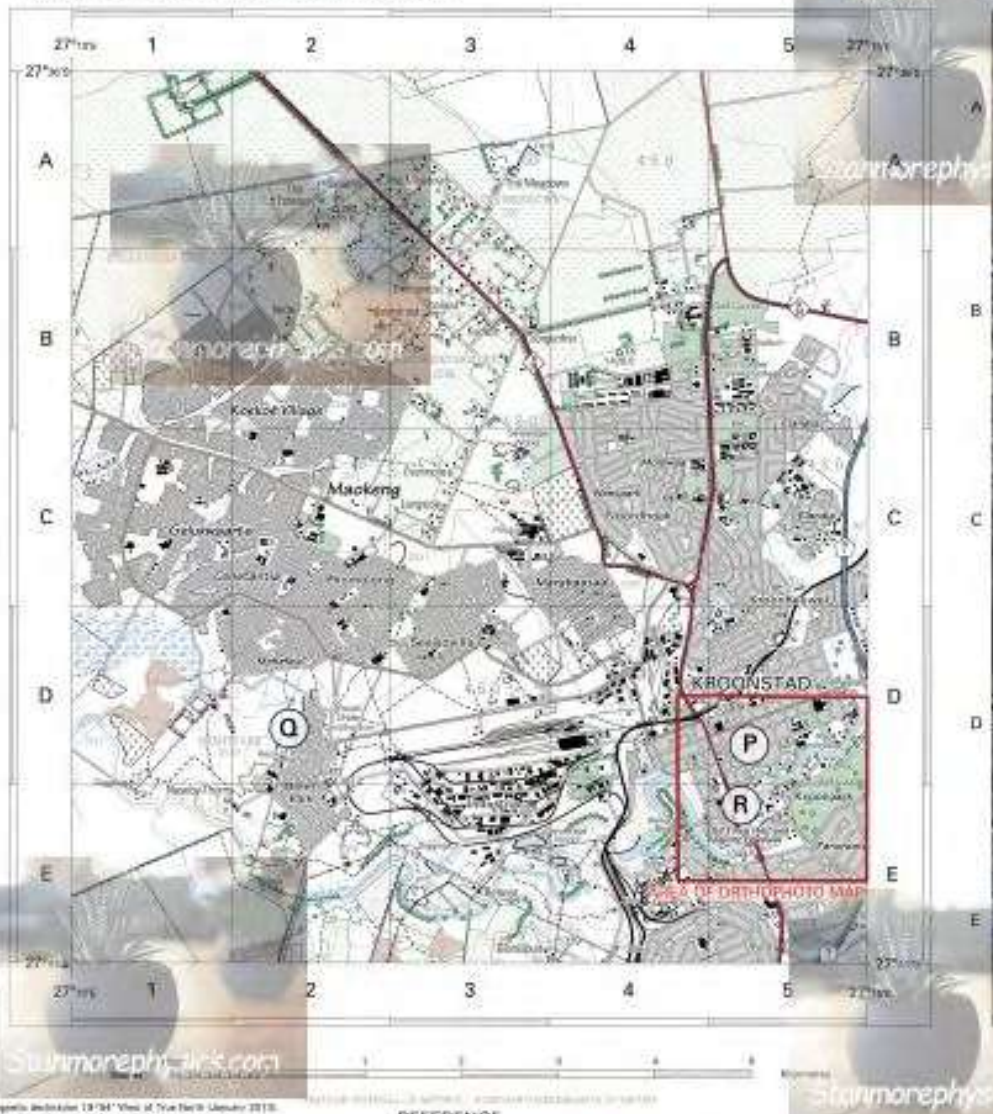


TOTAL SECTION B: 30

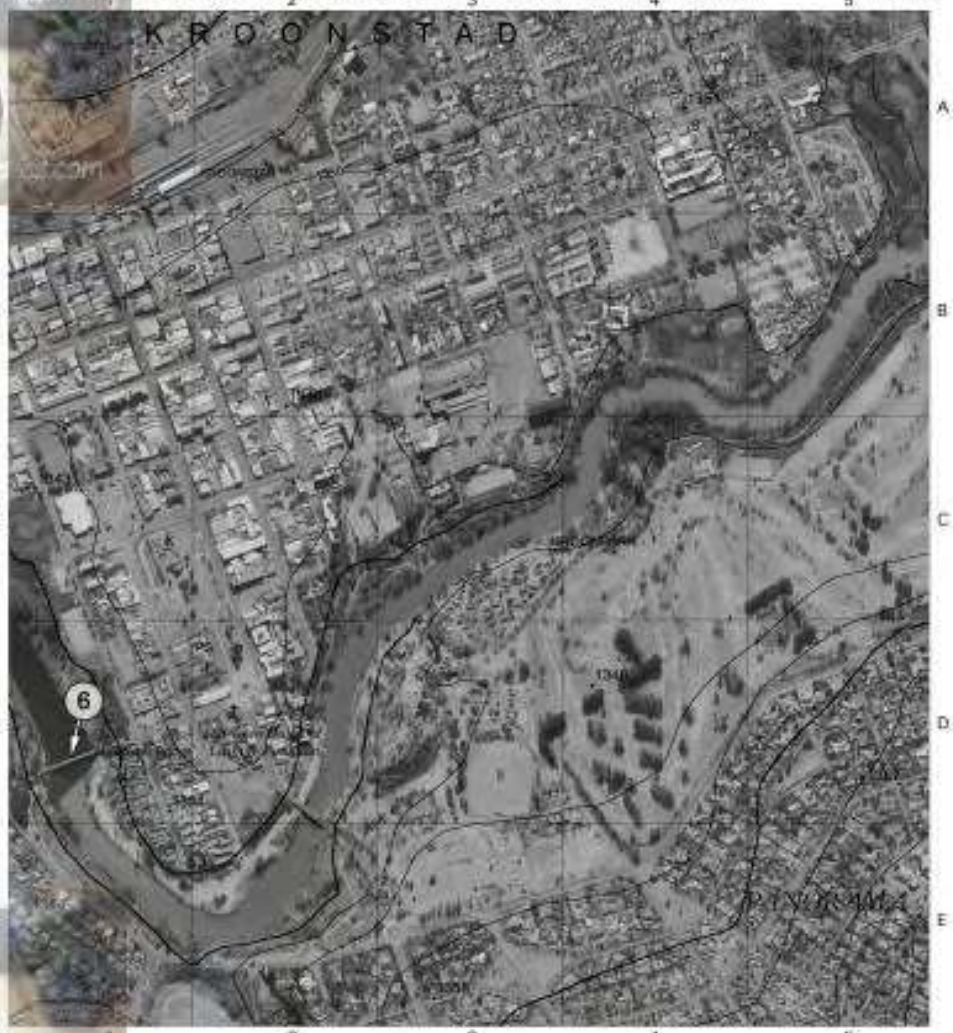
TOTAL: 150

END

EXTRACT FROM 2727CA KROONSTAD 1:50 000



EXTRACT FROM 2727 CA 22 KROONSTAD ortho - rectified image 1:10 000



REFERENCE

VERKLARING