GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

PREPARATORY EXAMINATION

2025

MARKING GUIDELINES

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GEOGRAPHY (PAPER 2) (10782)

22 pages

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PRINCIPLES FOR MARKING GEOGRAPHY – 2025

The following marking principles are developed to standardise marking processes.

MARKING

- ALL questions MUST be marked, irrespective of whether it is correct or incorrect.
- Where the maximum marks have been allocated for a particular question, place an Ⓜ over the remainder of the text to indicate the maximum marks have been achieved.
- A clear, neat tick must be used: ✓
  - If ONE mark is allocated, ONE tick must be used. ✓
  - If TWO marks are allocated, TWO ticks must be used. ✓✓
  - The tick must be placed at the FACT that a mark is being allocated for.
  - Ticks must be kept SMALL, as various layers of moderation may take place.
- Incorrect answers must be marked with a clear, neat cross: **X**.
  - Use MORE than one cross across a paragraph/discussion style questions to indicate that all facts have been considered.
  - Do NOT draw a line through an incorrect answer.
  - Do NOT underline the incorrect facts.

NOTE THE FOLLOWING

- If the numbering is incorrect or left out, as long as the sequence of answers to questions is followed candidates can be credited.
- Spelling errors, if the word is recognisable, award the marks provided the meaning is correct.
- Be sensitive to the sense of an answer, which may be stated in a different way
- In questions where a letter is the accepted response, but the learner writes the actual answer- award marks.

TOTALLING AND TRANSFERRING OF MARKS

- Each sub-question must be totalled
  - Questions in Section A has five subsections, therefore five subtotals per question is required. Section B has three subsections and three subtotals.
  - Subsection totals to be written in the right-hand margin at the end of the subsection.
  - Subtotals must be written legibly.
  - Leave space to write in the moderated marks on different levels.
- Total subtotals and transfer totals to top left-hand margin next to the question number.
- Transfer the total to cover of answer book.

MODERATION

Marking on each level of moderation is done in the same way as the initial marking. All guidelines for marking must be adhered to.

If a mark for a subquestion is changed after moderation, the moderator must strike through the marker's mark and write down the new mark. ~~12~~ 16

The total for the question must be recalculated, and similarly be struck off and the new total must be written down. ~~26~~ 36

QUESTION 1 (22)

1.1 1.1.1 A (South Atlantic High) ✓

1.1.2 B (Kalahari High) ✓

1.1.3 B (South Indian) X 2

1.2 1.2.1 Melting snow ✓

1.2.2 Mouth X

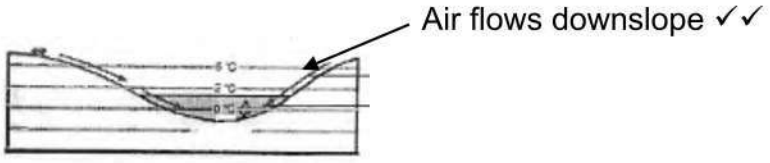
1.2.3 Third order ✓ 2



1.3 1.3.1 Katabatic X

1.3.2 1 occurs during the day while 2 occurs at night ✓✓

1.3.3 Cold air rolls down ✓✓ into the valley and forms an inversion



6

1.4 1.4.1 Shape of front concave ✓
Steep gradient of front ✓

1.4.2 Warm air undercuts the cold air ✓

1.4.3 Air behind the cold front ✓✓ is colder than the air in front. Cold air moves faster than warm air ahead of it. Cold front catches up with the warm front. 5

1.5 1.5.1 (a) A river that only flows all year-round X
(b) The river channel is wide X
(c) Regularity ✓✓ of rainfall and the soil type ✓✓ over which the streams flow.

1.5.2 Gauteng ✓and the Eastern Cape X

1.5.3 The cost of food production will increase at it is costly to buy purified water. Farmers will have to buy more chemicals to purify water✓✓. Chemicals cost a lot, and this will increase production costs (M). It will be costly to purify water for use in electricity generation. These costs will be included in electricity prices. Costs will increase the price of electricity during production. There will be less clean water to generate hydroelectricity. 7

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

QUESTION 1: RURAL AND URBAN SETTLEMENTS

1.1 1.1.1 C (1)/nucleated

1.1.2 A (1)/linear

1.1.3 C (1)/wet; close

1.1.4 C (1)/(iii) and (iv)

1.1.5 D (1)/urban profile

1.1.6 B (1)/an area within an urban settlement with a particular function

1.1.7 C (1)/(ii) and (iii)

(7 x 1) (7)

1.2 1.2.1 urban hierarchy (1)

1.2.2 conurbation (1)

1.2.3 farmstead (1)

1.2.4 city (1)

1.2.5 Metropolis (1)

1.2.6 Z (1)/threshold population

1.2.7 Y (1)/range

1.2.8 Y (1)/Urban blight (8 x 1) (8)

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1.3 1.3.1 Define the term *rural depopulation*.

The decrease in the number of people/population in rural areas (2)
(CONCEPT) (1 x 2) (2)

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

It is increasing (1)/ (1 x 1) (1)

1.3.3 State the economic reason, evident in the cartoon, for the couple leaving the rural area.

No jobs/unemployment (2)
Need for more money (2)
(ANY ONE) (1 x 2) (2)

1.3.4 Identify TWO pull factors illustrated in the cartoon.

Better paying jobs/jobs available (in urban area) (1)
More services available (in urban areas) (1) (2 x 1) (2)

1.3.5 Describe the social impact of rural depopulation on the rural areas, as stated in the cartoon.

Breaking up of family units (2)
Old people/children left behind in rural areas (2)
[ANY ONE] (1 x 2) (2)

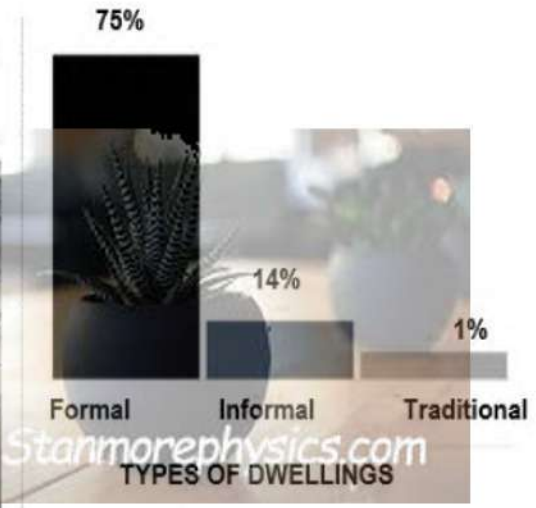
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1.3.6 Discuss how land reform may help to reduce rural depopulation.

Land reform will give land back to people and this will help to create jobs if they work the land (2)
Land reform allows for more farming to take place, and this creates employment (2)
Improves food security (2)
Land reform may allow for infrastructure development which leads to job opportunities (2)
Land reform can lead to more basic services which improves quality of life (2)
Land reform may lead to creation of jobs which leads to better standards of living (2)
[ANY THREE] (3 x 2) (6)

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





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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?

14% (1) (1 x 1) (1)

1.4.2 What is the main reason for the development of informal settlements, as stated in the infographic?

People migrate to the towns and cities (2) (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.

Electricity (2)
(Portable) toilets (2)
(ANY ONE) (1 x 2) (2)

1.4.4 According to the extract, what are the reasons for the frequent spread of fires in informal settlements?

High density buildings (1)
The flammability of building materials (1)
Strong winds (1)
[ANY TWO] (2 x 1) (2)

1.4.5 In a paragraph of approximately EIGHT lines, suggest initiatives which national government can implement to reduce the number of informal settlements in South Africa.

Building low-cost housing (2)
Creating more employment opportunities (2)
Invest in education and training (2)
Providing better services (accept examples) in rural areas (2)
Providing better infrastructure (accept examples) (2)
Provide access to low-cost (home) loans (2)
Partnerships with businesses to upgrade existing informal settlements to low-cost housing(2)
Allocation of sufficient funds (2)
Enforce stricter land-use regulations/zoning to avoid illegal occupation (2)
[ANY FOUR] (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]

1.5 1.5.1 According to the article, what is the cause of water issues in Gauteng?

Infrastructure collapse/challenges (1)
Maintenance of the LHWP (1)
Lack of technical experts (1)
[ANY ONE] (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?

To reduce the possibility of service delivery protests (2)
Provision of water is a basic human right (2)
Reduce the possibility of health issues in the community (2)
[ANY ONE] (1 x 2) (2)

1.5.3 According to the article, identify TWO of the water restrictions introduced by the municipality.

No watering of gardens (1)
No filling of swimming pools (1)
No washing of cars (1)
No using of hosepipes between 6 a.m. and 6 p.m. (1)
[ANY TWO] (2 x 1) (2)

1.5.4 Suggest how the local municipality can assist the local residents during water disruptions.

By providing water tankers/water trucks (2) (1 x 2) (2)

1.5.5 In a paragraph of approximately EIGHT lines, suggest strategies on how communities can assist in saving water.

Repair leaking taps immediately, so water is not wasted (2)
Report leaking pipes immediately so that the municipality can send plumbers to repair leakages quickly (2)
Promote community awareness programmes on safe water usage to save water (2)
Communities arrange clean up campaigns of local rivers to ensure water is not polluted (2)
Use of JoJo tanks to store water in rainy seasons (2)
Educational programmes at schools to teach wise water usage (2)
Collecting rainwater to use in gardens (2)
[ANY FOUR] (4 x 2) (8)
[60]

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QUESTION 2: ECONOMIC GEOGRAPHY OF SOUTH AFRICA

2.1.1 *A (1)/primary*

2.1.2 *B (1)/decreasing*

2.1.3 *D (1)/high levels of worker's unrest*

2.1.4 *A (1) (i) and (iii)*

2.1.5 *(the correct answer is (iii) and (i) - due to an error this option was omitted. If the learner has chosen an option - the learner must be credited with a mark. If no answer was given - no marks to be awarded*

2.1.6 *D (1)/quaternary*

2.1.7 *C (1)/job creation*

2.1.8 *A (1)/multiplier*

(8 x 1) (8)

2.2 2.2.1 *Y (1)/centralisation*

2.2.2 *Z (1)/decentralisation*

2.2.3 *Z (1)/decentralisation*

2.2.4 *Y (1)/centralisation*

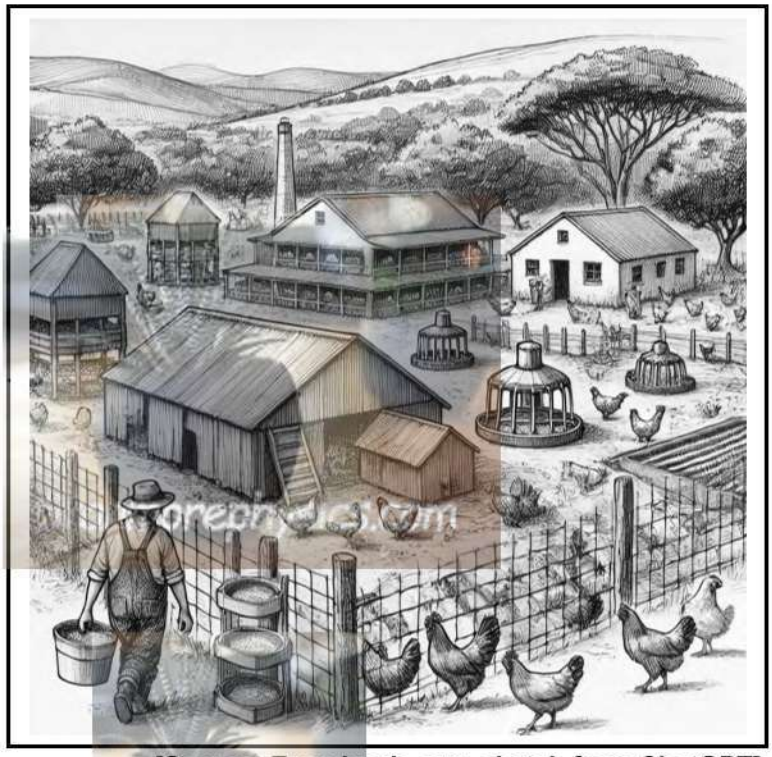
2.2.5 *Z (1)/decentralisation*

2.2.6 *Y (1)/centralisation*

2.2.7 *Z (1)/decentralisation*

(7 x 1) (7)

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



[Source: Examiner's own sketch from ChatGPT]

2.3.1 Define the term *small scale farming*.

The production of crops and/or livestock on a small piece of land for a market and for own use (2)
[CONCEPT] (1 x 2) (2)

2.3.2 Give evidence from the sketch, that small scale farming is practised.

Food production is on a smaller scale (1)
There is evidence of manual labour/it is labour orientated (1)
Few people are employed
The piece of land is small (1)
Produces small quantity of food (1)
Supplies the local communities (markets) (1)
[ANY ONE] (1 x 1) (1)

2.3.3 Discuss TWO challenges that small-scale farmers face.

Small-scale farmers often lack the purchasing power to buy inputs in bulk (2)
Making them more vulnerable to price fluctuations (2)
Outbreaks of diseases such as the Newcastle disease and avian influenza can devastate poultry populations (2)
The struggle to meet the stringent standards required by formal markets (2)
Financial limitation (2)
Lack of adequate governmental support in terms of subsidies and policy frameworks (2)
Lack of skills training programmes (2)
Inadequate infrastructure, unreliable water supply, and insufficient storage facilities (2)
Competition from large commercial farms (2)
Droughts or any natural disaster (2) (accept examples)
May lack knowledge /skills (2)
[ANY TWO] (2 x 2) (4)

2.3.4 Suggest a strategy on how the government can support small-scale farmers.

Enhance access to financing (2)
Training programmes and workshops can be organised to build capacity and enhance skills among farmers (2)
Assisting small-scale farmers in accessing formal markets (2)
Developing rural infrastructure, such as roads, storage facilities, and irrigation systems (2)
Promote sustainable farming practices (2)
Public-private partnerships can facilitate access to markets, finance, and innovation (2)
[ANY ONE] (1 x 2) (2)

2.3.5 Explain the social importance of small-scale farming to communities in South Africa.

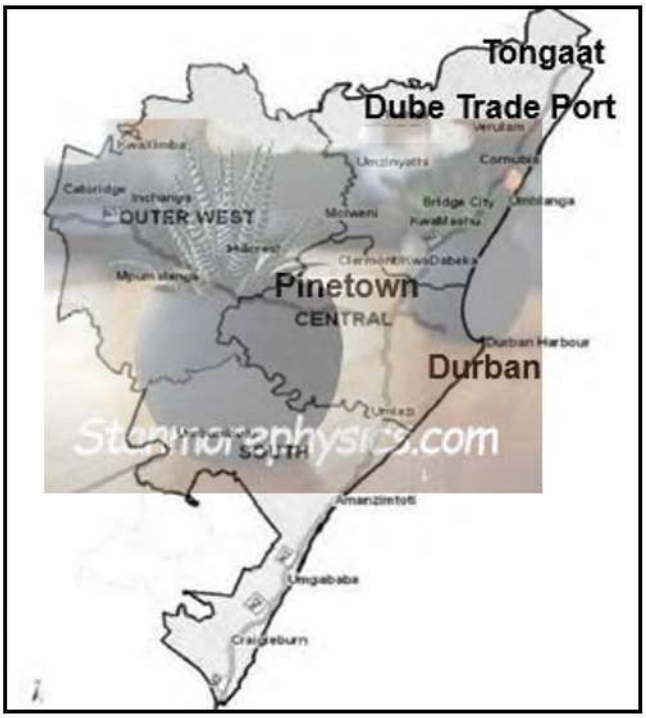
It increases food security in the country (2)
People can sell their excess crops/poultry thus reducing poverty (2)
Jobs created can help improve the standard of living (2)
It creates job opportunities for the local community (2)
Reducing rural-urban migration (2)
Contributes to the economy of SA which can help provide more services to people (2)
[ANY THREE] (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.first sugar mills – completed in 1850.



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

[Source: chrome-extension://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.

Durban Pinetown core industrial region (1) (1 x 1) (1)

2.4.2 For which agriculture product is Tongaat (oThongathi) well-known?

Sugar cane (1) (1 x 1) (1)

2.4.3 Give a climatic reason for the growing of the agriculture product mentioned in QUESTION 2.4.2 in this area.

Warm temperatures (1)
High humidity (1)
High rainfall (1)
Frost free area(1)
[ANY ONE] (1 x 1) (1)

2.4.4 Explain how the Dube TradePort can be an advantage for the agriculture product grown in Tongaat (oThongathi)

Located near King Shaka International Airport, enabling fast export of perishable goods like sugarcane to international markets (2)
The TradePort provides efficient road, rail, and air transport connectivity to distribute their products locally and globally (2)
Farmers in Tongaat can take advantage of advanced farming techniques, modern irrigation systems, and research facilities to improve productivity and crop quality, offered by the Dube Trade Port (2)
The TradePort features world-class warehousing facilities, ensuring temperature-controlled environments (2)
By being part of the Dube TradePort's network, agricultural producers in Tongaat can access export incentives, trade facilitation services, and global partnerships (2)
Dube TradePort helps create jobs in farming, packaging, logistics, and sales which contributes to the overall economic growth of Tongaat (2)
[ANY TWO] (2 x 2) (4)

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

Supplies raw materials to sugar mills and refineries in the Durban-Pinetown region (2)
Supports agribusiness and food-processing industries that produce sugar, ethanol, and other by-products (2)
Multiplier effect (Beacon Sweets) (2)
Contributes to exports (GDP) via the Durban Port, boosting trade and revenue (2)
Industries, particularly in manufacturing, retail, and logistics (2)
Leads to Infrastructure development (2)
Cheaper prices on sugar products (2)
Job creation (2)
[ANY TWO] (2 x 2) (4)

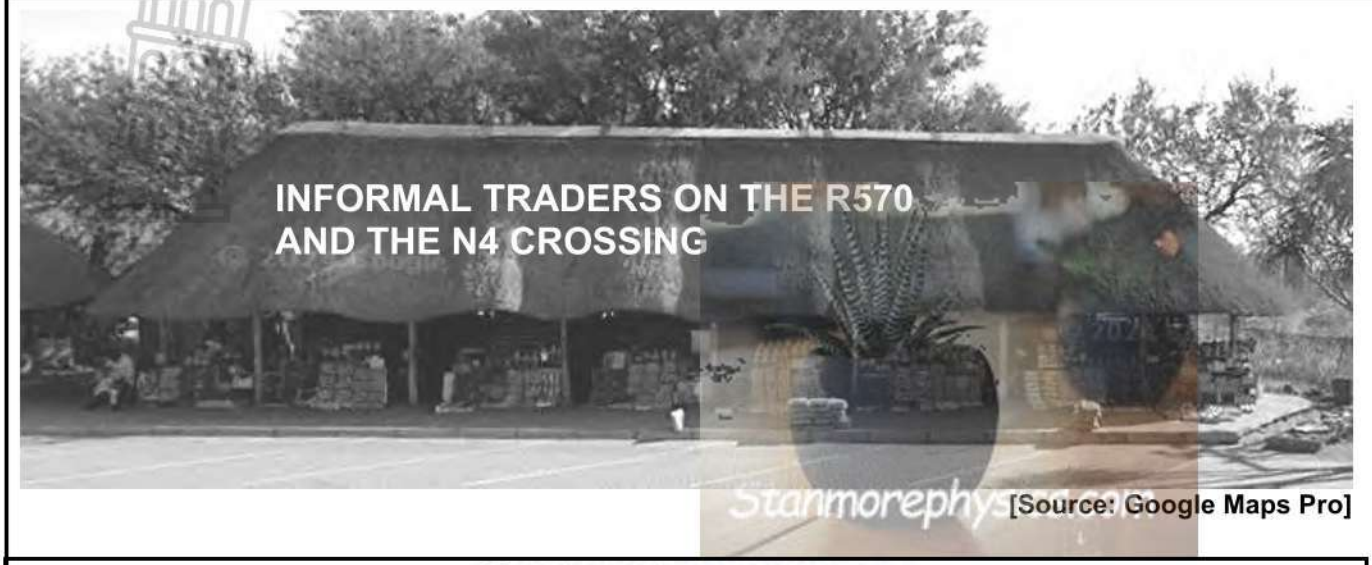
2.4.6 How will a natural disaster, e.g., flooding, negatively impact the economy of the Dube TradePort?

Flooding can destroy sugarcane fields and other crops, leading to reduced yields and financial losses for farmers (2)
Waterlogged soil can cause delayed planting and harvesting, affecting sugarcane production and profit margins for farmers (2)
Roads, bridges, and buildings (Infrastructure) in Tongaat, Dube TradePort and Durban-Pinetown can be washed away or severely damaged, disrupting transportation and daily life resulting in high costs to repair (2)
Businesses and shops may experience flood damage, crop losses, and closures, reducing economic activity (2)
Repair and reconstruction costs can place strain on **Tongaat, Dube Trade Port and Durban-Pinetown local municipalities and residents (2)**
Flooded roads and infrastructure damage can halt transportation of goods to and from King Shaka International Airport (2)
Delayed exports and imports could lead to financial losses (2)
Businesses may shut down or relocate, leading to job losses and a decline in economic growth (2)
International investors may hesitate to invest in flood-prone areas (2)
[ANY TWO] (2 x 2) (4)

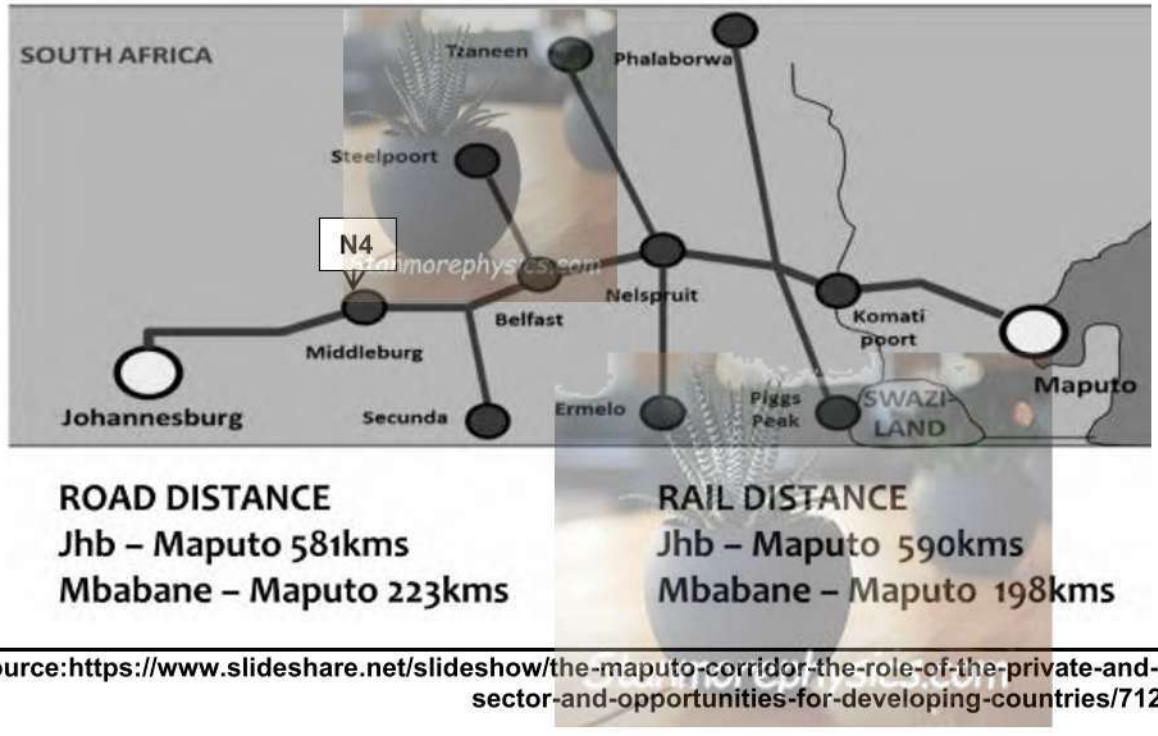
[15]

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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).*

Transport and communication links between major industrial areas, metropolitan areas, and harbours. (2)
[CONCEPT] (1 x 2) (2)

2.5.2 Refer to the infographic and quote evidence why the Maputo Corridor can be classified as a Spatial Development Initiative.

It 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 (2) (1 x 2) (2)

2.5.3 Name ONE transport link mentioned in the infographic.

Road transport / N4 (1)
Rail transport (1)
(ANY ONE) (1 x 1) (1)

2.5.4 Identify ONE of the aims of a Spatial Development Initiative illustrated in the infographic.

To promote growth in areas that are underdeveloped (by means of supporting informal traders) (2)
Facilitate the movement of goods and resources (2)
Initiate economic activities along transport corridor (2)
Attract more tourists (2)
[ANY ONE] (1 x 2) (2)

2.5.5 In a paragraph of approximately EIGHT lines, explain how the Maputo Corridor SDI will improve the lives of people in small towns along the corridor.

Upgrades to the road and rail networks along the corridor, such as the N4 highway and Mozambique's rail systems, enhance connectivity between small towns and larger urban areas (2)
As the corridor connects to the port of Maputo, it opens up opportunities for small towns to engage in trade, export local goods (such as agriculture or minerals), and benefit from imports, increasing economic activity in these towns (2)
Encourages the establishment and expansion of local businesses in small towns (2)
People in small towns will have access to more employment opportunities, reducing poverty and improving standards of living (2)
Improved infrastructure makes small towns along the corridor more attractive for both local and foreign investors (2)
The natural beauty and cultural heritage of small towns may attract tourists creating more business opportunities and employment for local residents (2)
Small towns along the corridor can export local products like crops, livestock, or minerals, which boost local economies (2)
People in small towns may be able to travel more easily to regional centres for better educational and healthcare facilities (2)
[ANY FOUR] (4 x 2) (8)

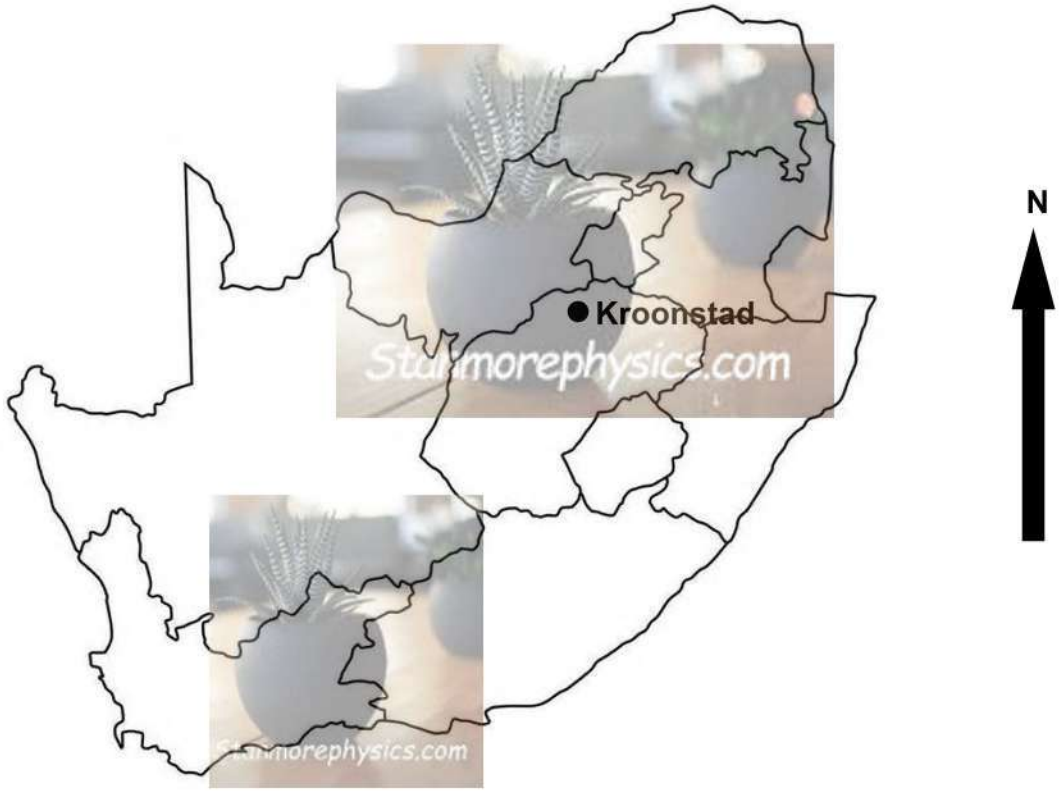
[60]

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 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	Spoorwegstasie of Sylyn
Other railway, Tunnel	Ander spoorweg; Tonnel

3.1 MAP SKILLS AND CALCULATIONS

3.1.1	C (1)/5	(1 x 1)	(1)
3.1.2	C (1)/small with less detail	(1 x 1)	(1)
3.1.3	A (1)/gold	(1 x 1)	(1)
3.1.4	A (1)/junction	(1 x 1)	(1)
3.1.5	Name the feature found at the coordinates: 27°39'26"S; 27°12'44"E. **Ruins (1)**	(1 x 1)	(1)
3.1.6	Provide evidence that the orthophoto was taken before 14h00. **Shadows are shorter (2)** **Direction of the shadows are SW (2)** **Shadows lie south and SW of the features (2)** **[ANY ONE]**	(1 x 2)	(2)
3.1.7	Calculate the magnetic declination for 2025 Difference in years: **12 years (1)** Difference in years x annual change: **12 years x 3' = 36' (1)** Magnetic declination for 2025: **20° 30' West of True North (1)**	(3 x 1)	(3)

3.2 **MAP INTERPRETATION**

Refer to the topographical map.

3.2.1 (a) **C (1)/gridiron** (1 x 1) (1)

(b) **B (1)/secondary / A (1) primary** (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**.

Generally flat land - making it easy to construct / for farming(2)
Close to river for access to water (2)
(ANY ONE)

(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.

To act as a buffer (2) to protect the cultivated land on either side of the road
To act as protection for road users from cross winds (2)
To enhance the aesthetics of the road/area/spaces (2)
(ANY ONE) (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 **Q** in block **D2** on the topographical map. Provide map evidence to prove that area **R** is the older development compared to area **Q.**

Area Q
The irregular street pattern is the new pattern (2)
Road still under construction (2)

OR

Area R
Presence of monument indicates old part of the city (2)
Gridiron street pattern is the old pattern (2)
Old town hall and leaping fountain (2)
[ANY ONE] (1 x 2) (2)

3.2.3 Refer to Gelukwaarts in block **C1** on the topographical map.

Discuss ONE factor, evident on the topographical map , limiting the expansion of Gelukwaarts in a south westerly direction.

The presence of the marsh/vlei will limit expansion in a westerly (2)

direction, as it will not be suitable to build on. (2)
Cemetery limits development (2) (1 x 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 (good) located.

Good road network for easy access to transport / local markets (2)
Railway close by facilitates for easy transport of goods (2)
Access to labour force available from residential areas (2)
Gentle slope for easier construction (2)
Easy access to water (2)
Far from residential areas to minimise pollution(2)
Close to raw materials (2)
Cheaper land on outskirts(2)
Power lines nearby (2)
[ANY ONE] (1 x 2) (2)

3.3 GEOGRAPHIC INFORMATION SYSTEMS (GIS)

3.3.1 Define the concept *attribute data*.

Data that describes and give further information about a feature (CONCEPT) (1 x 2) (2)

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Refer to the orthophoto map.

3.3.2 Name ONE way in which attribute data is represented on the orthophoto.

Contour line (2)
Spot height (2)
Names of places(2)
[ANY ONE] (1 x 2) (2)

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

3.3.3 Provide ONE attribute of the bridge, evident on the topographical map.

Alexander bridge (2)
Name of the bridge is given (2)
Height of bridge /1336.0(2)
(ANY ONE) (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

Point Feature(s)	Line Feature(s)
Wind Pump	**Contour line**
Ruins	**Other road**
Buildings	**Farm boundary**
Water source / point	**row of trees**
Benchmark	**track and hiking trail**

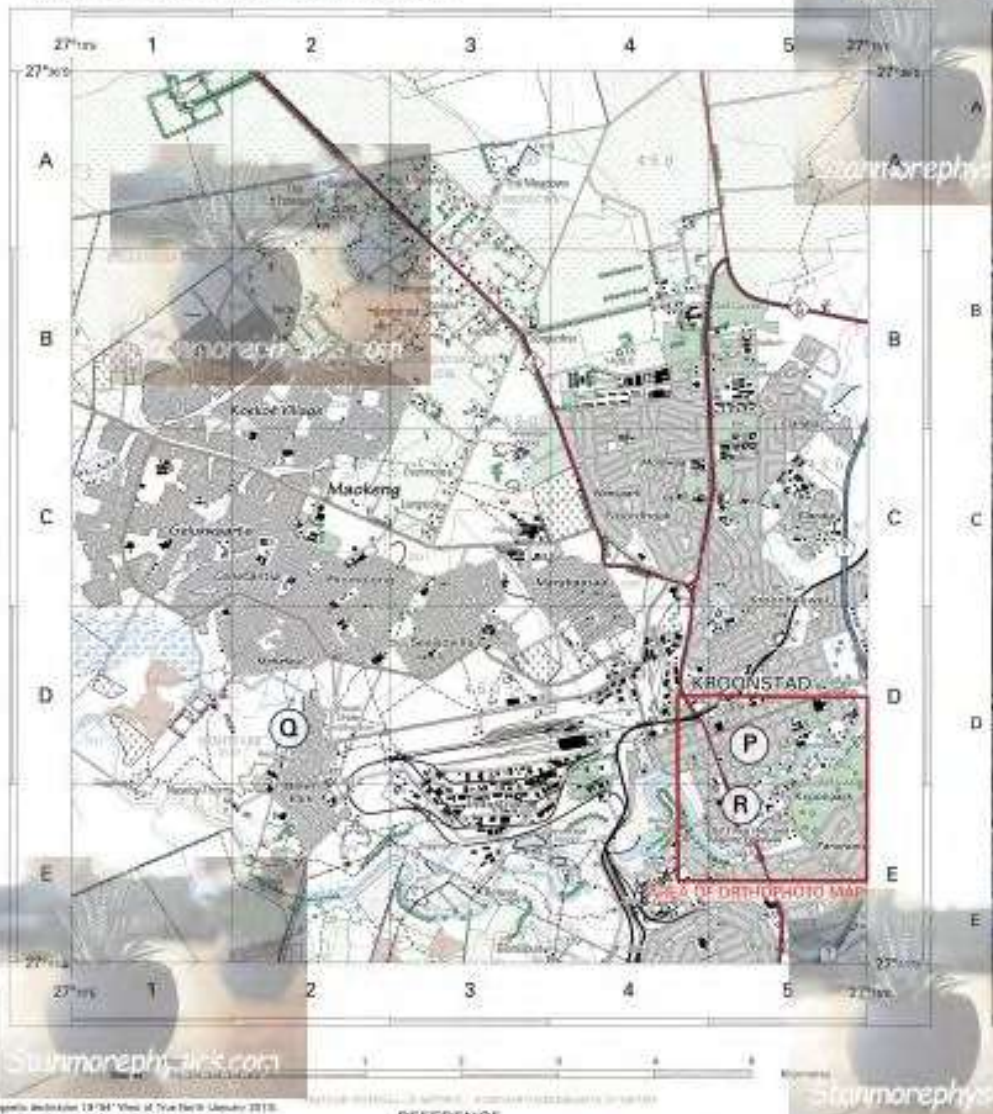
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(Must have ONE point feature and ONE line feature) (2 x 1) (2)

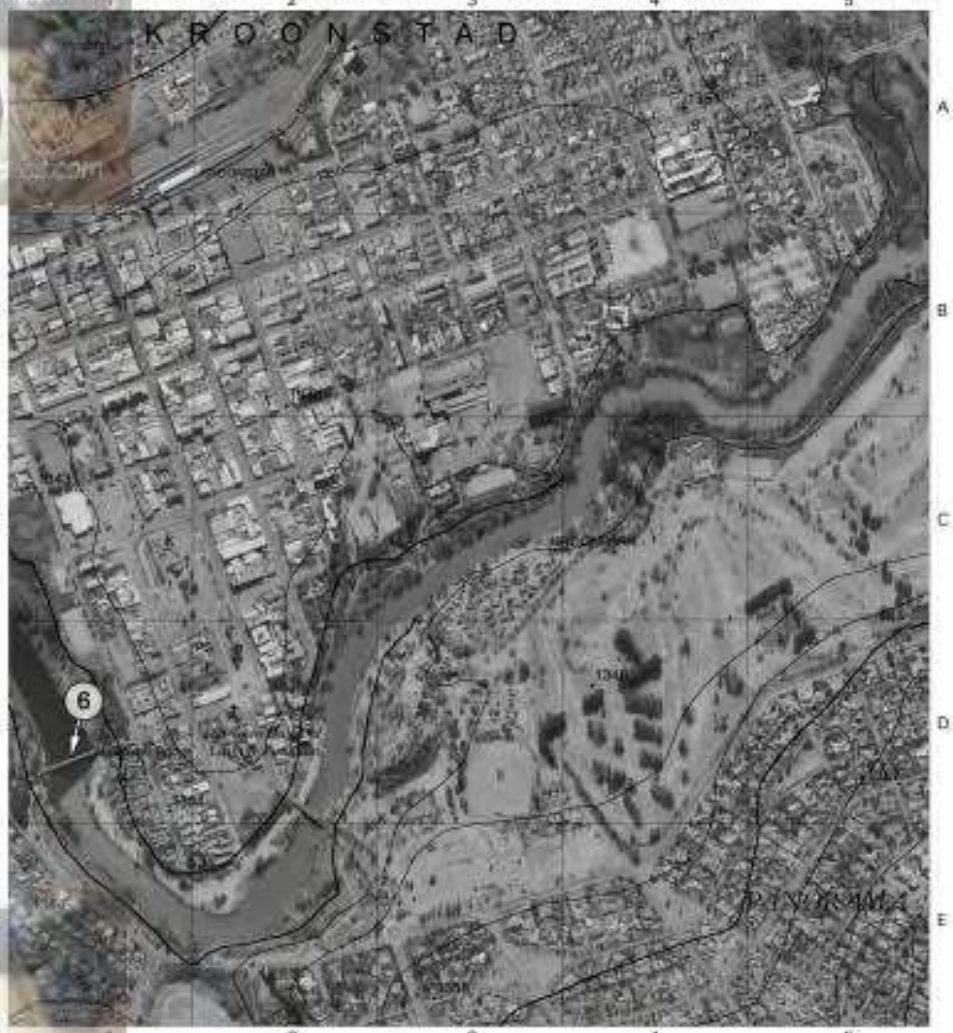
TOTAL SECTION B: 30

TOTAL: 150

EXTRACT FROM 2727CA KROONSTAD 1:50 000



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



REFERENCE

VERKLARING