



PREPARATORY EXAMINATION

2022

MARKING GUIDELINES

GEOGRAPHY (PAPER 2) (10782)

28 pages

PRINCIPLES FOR MARKING GEOGRAPHY – 2022

The following marking principles were developed to standardise the 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 (M) 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 for which the mark is being allocated.
 - 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 (x) across 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 answer is recognisable, award the marks, provided the meaning is correct.
- Be sensitive to the context 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 the marks.

TOTALLING AND TRANSFERRING OF MARKS

- Each sub-question must be totalled.
 - Questions in Section A have five sub-sections, therefore five sub-totals per question is required. Section B has three sub-sections and three sub-totals.
 - Sub-section totals to be written in the right-hand margin at the end of the sub-section and underlined.
 - Sub-totals must be written legibly.
 - Leave space to write down moderated marks on different levels.
- Add sub-totals and transfer the total to the top left-hand margin next to question number.
- Transfer the total to the cover of the 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 sub-question is changed after moderation, the moderator must strike off the marker's mark and write down the new mark as follows, ~~12~~ 16.

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

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 a possible answer to the following questions. Choose the correct answer and write only the letter (A – D) next to the question number (1.1.1 – 1.1.8) in the ANSWER BOOK, e.g., 1.1.9 D.

1.1.1 The main commercial zone of an urban area is the ...

A (1)/central business district

1.1.2 The ... land-use zone is characterised by the most pollution.

C (1)/ industrial

1.1.3 The ... land-use zone is unattractive, with high land values.

B (1)/transition

1.1.4 The land value in this land-use zone is the cheapest.

C (1)/Rural-urban fringe

1.1.5 The land-use zone that has the highest building density.

A (1)/Central business district

1.1.6 A commercial zone situated in the suburbs is known as the ...

C (1)/outlying business district

1.1.7 The land-use zone where most people live.

D (1)/Residential zone

1.1.8 Airports are usually located in this land-use zone.

B (1)/Rural-urban fringe

(8 x 1) (8)

- 1.2 Choose a term from COLUMN B that matches the description in COLUMN A. Write only the letter (A – H) next to the question number (1.2.1 – 1.2.7) in the ANSWER BOOK, for example 1.2.8 I.

1.2.1 ***H (1) Wet point***

1.2.2 ***G (1)/Rural settlements***

1.2.3 ***F (1)/Dispersed***

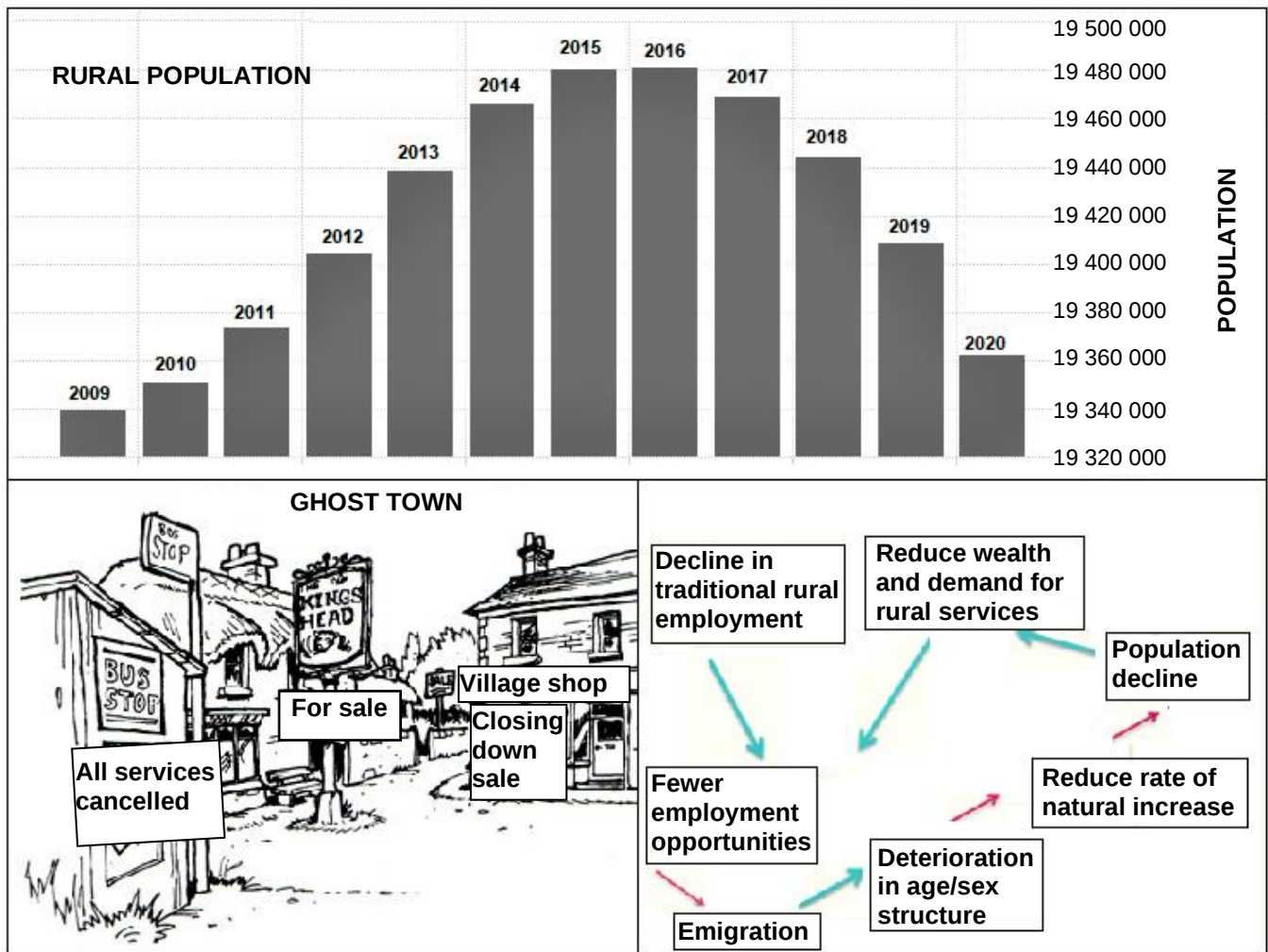
1.2.4 ***B (1)/Site***

1.2.5 ***C (1)/Nucleated***

1.2.6 ***A (1)/Urban settlements***

1.2.7 ***E (1)/Situation*** (7 x 1) (7)

- 1.3 Refer to the infographic on South Africa's rural population trends from 2009 until 2020 and answer the questions that follow.



[Sources: <https://tradingeconomics.com/south-africa/rural-population-wb-data.html>; <https://slideplayer.com/slide/4385253/>; <https://slideplayer.com/slide/7501747/>]

- 1.3.1 Define the term *rural depopulation*.

The decline in the number of people living in a rural area. (2)

[CONCEPT]

(1 x 2) (2)

- 1.3.2 Give evidence from the population graph that rural depopulation is a reality in South Africa.

The graph shows a decline in population from 2017 (19 480 000) to 2020 (19 320 000). (1)

(1 x 1) (1)

- 1.3.3 Describe the impact of rural depopulation on the economy of rural areas.

Closing of schools, clinics and services (e.g. farms close down) means people will lose their jobs. (2)

There will be reduced wealth in rural areas therefore no buying power. (2)

Demand for rural services will be reduced – there will be people without jobs and without an income. (2)

Shops will close down as the buying market will be much smaller. (2)

Towns will become ghost towns because there will be fewer economic activities to support the maintenance of the infrastructure. (2)

Fewer job opportunities therefore less income. (2)

[Any TWO - Examples can be linked]

(2 x 2) (4)

- 1.3.4 In a paragraph of approximately EIGHT lines, make suggestions to the local government on how to reduce the trend of rural depopulation, and the impact of it on the rural economy as indicated in the infographic.

Advertise rural areas to attract people back to the area for more buying power. (2)

Create recreational attractions in rural areas to attract people to these areas/keep people in the area. (2)

Develop the rural areas into tourist attractions to give those areas an economic injection. (2)

Restore old buildings into tourist attractions or hotels to attract people to the area. (2)

Develop services (accept examples of services) to attract the youth back to the rural areas. (2)

Decentralisation of industries to rural areas to create jobs. (2)

Move industries to rural areas to attract more workers to rural areas. (2)

SDI will result in local government investing in spatial development in the area (2)

Infrastructure development to attract investment in the area (2)

[Any FOUR]

(4 x 2) (8)

(15)

- 1.4 Refer to the case study on the growth of South African urban settlements.

THE GROWTH OF SOUTH AFRICAN URBAN SETTLEMENTS

In 1990, 52% of South Africans lived in urban settlements, but a mere 30 years later, more than 67% of South Africa's population live in cities and towns. The population density within the nation has risen, reaching 46 inhabitants per square kilometre, meaning more people are sharing less space. Many opportunities for work and leisure can be found in the urban locations of South Africa. In theory, urban settlements create conditions for improved health, education and economic activity because services are concentrated over a small area. In practice, however, rapid urbanisation degrades environmental and health conditions, places massive strain on provision of services and fuels crime and social tension.

Gauteng has the biggest and fastest growing population of all nine provinces in South Africa. The province experienced a population increase of 33,7% between 2010 and 2020, which is more than double the average national population increase.

[Source: Adapted from Oxford South African Thematic Atlas for grades 7-9]

- 1.4.1 Define the term *urbanisation*.

An increase in the percentage or proportion of people living in urban areas. (2)

[CONCEPT]

(1 x 2) (2)

- 1.4.2 Give ONE factor from the case study which indicates why people prefer to live in urban areas.

Many opportunities for work and leisure (1)

Improved health (1)

Improved education (1)

Economic activities (1)

Services concentrated in a small area (1)

[Any ONE]

(1 x 1) (1)

- 1.4.3 According to the case study, “rapid urbanisation degrades environmental and health conditions,”. Describe how rapid urbanisation results in the degradation of environmental and health conditions.

Environment:

More people and activities in the urban areas will result in more environmental problems, e.g., pollution. (2)

Higher population density will result in exhaustion of natural resources. (2)

More infrastructure development e.g., roads, houses will result in destruction of the natural environment. (2)

More people will result in an increase in temperature (Urban Heat Island/pollution dome/smog) further resulting in an alteration to the natural environment (2)

Health:

More people will result in an increase in pollution which will have a negative effect on the health of people (2)

Higher population density results in more stress-related/heart conditions/anxiety. (2)

High population density will result in the rapid spread of diseases e.g., COVID-19. (2)

High population density will place pressure on health services which will result in deteriorating health conditions of the population. (2)

[ONE must be on the environment, and ONE must be on health conditions]

[Any TWO] (2 x 2) (4)

- 1.4.4 Explain why the case study refers to Gauteng as the province with the biggest and fastest-growing population in South Africa.

Gauteng is located centrally which means that it is very accessible (via road, air, rail). (2)

Gauteng has a high concentration of industries. (2)

Gauteng has a well-developed infrastructure. (2)

Gauteng is the economic hub of the country. (2)

Many opportunities for work and leisure can be found in Gauteng. (2)

(Any ONE) (1 x 2) (2)

1.4.5 Evaluate the effect of urbanisation on the provision of services in Gauteng.

More people will reduce safe, readily available, water supplies. (2)

High water demand results in poor provision of water for sanitation, drainage and solid waste collection. (2)

High demand on services will place a budgetary strain on municipalities (2)

High electricity demand will put strain on the delivery of electricity because of the increasing percentage of people in urban areas. (2)

Higher population requires more clinics to be built to supply medical services to a higher population in urban areas. (2)

More people in urban areas means more people that are littering which in turn means more needs to be spent on the removal of garbage. (2)

Pressure on already stressed public transport systems – people make use of e-hailers (Uber/Bolt) – more pressure on commuters' pockets. (2)

Higher demand on educational services (2)

[Any THREE]

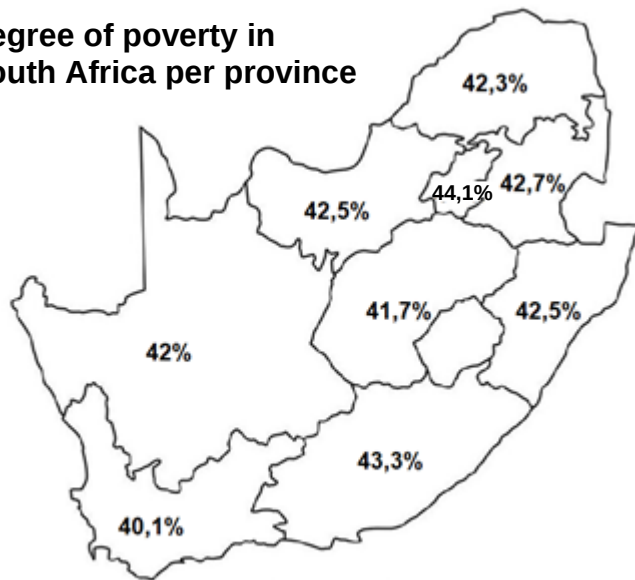
(3 x 2) (6)

[Accept other urban services]

(15)

1.5 Refer to the following infographic on poverty in South Africa.

Degree of poverty in South Africa per province



Poverty is easy to see but less easy to define – or to measure across a city, a province or a country. Many measures of poverty are based on money. If a person lives on less than a certain threshold of income, they are considered to be living in poverty.

[Robert Haveman](#)

INFORMAL SETTLEMENT



[Source: <https://southafrica-info.com/people/mapping-poverty-in-south-africa/>]

- 1.5.1 (a) Identify the province in the infographic with the highest poverty rate in South Africa.

Gauteng (1)

(1 x 1) (1)

- (b) Account for the higher poverty rate in the province identified in QUESTION 1.5.1 (a).

Huge influx of people from other provinces or countries increases the competition for jobs. (2)

Lower remuneration because of large pool of labourers. (2)

Unemployment because of large number of immigrants that are willing to work for lower pay. (2)

Unemployment because of lack of skills and qualifications (2)

[Any ONE]

(1 x 2) (2)

- 1.5.2 Give TWO examples which indicate that the people in the photo image of the infographic are living in poverty.

Poor building structures (1)

Children are in the streets and not at school/lack of education (1)

People doing tasks themselves because they cannot afford a professional to do the job/manual labour evident (1)

Poor infrastructure (e.g. housing, roads) (1)

[Any TWO]

(2 x 1) (2)

- 1.5.3 Explain how unemployment contributes to poverty in urban areas.

People without an income cannot afford to pay bonds/rent and thus resort to informal settlements. (2)

People without an income cannot feed themselves and results in more beggars. (2)

High poverty rate because of unemployment puts more strain on the government in the issuing of social grants/more grants will have to be paid. (2)

Greater strain on taxpayers to subsidise grants. (2)

Increase in the number of homeless people as they do not have an income to afford proper houses. (2)

Unemployment will result in the increase of crime in urban areas. (2)

Municipalities spend money on feeding the poor instead of spending money on the improvement of infrastructure, etc. (2)

[Any TWO]

(2 x 2) (4)

- 1.5.4 Suggest ways how the local government responsible for the area in the image above, can decrease poverty.

Assist the inhabitants in job creation, e.g. entrepreneurial programmes. (2)

Focus on projects which can generate sustainable income in the community. (2)

Distribution of food, clothing and basic necessities to the people living in the informal settlement. (2)

Supply the inhabitants with cheaper services like electricity and water. (2)

Provide successful mentorship programmes, life skills courses and career plotting projects to the inhabitants of the area. (2)

Develop women to run outreach programmes in the area. (2)

Invest money in skills development so that people can have an opportunity to get a decent job to earn a proper income. (2)

Increase grants to be more inflation related. (2)

Provide training opportunities to inhabitants to specialise in specific jobs so that they can get a job to earn an income. (2)

Partner with successful businesses outside the area to bring opportunities into the area for people to earn an income. (2)

[Any THREE]

(3 x 2) (6)
(15)

[60]

QUESTION 2: ECONOMIC GEOGRAPHY OF SOUTH AFRICA

- 2.1 Give ONE term to describe each of the following economic activities in the sugar industry, by choosing a term from the list below. You may use a term more than once. Write only the term next to the question number (2.1.1 – 2.1.8) in the ANSWER BOOK.

Primary sector, Secondary sector, Tertiary sector, Quaternary sector

- 2.1.1 A sugar farmer employs labourers to harvest sugar cane.

Primary sector (1)

- 2.1.2 Sugar cane is transported by truck to a sugar factory.

Tertiary sector (1)

- 2.1.3 Sugar is manufactured at the refinery.

Secondary sector (1)

- 2.1.4 An advertising agency is used to design the logo for the packaging of the sugar.

Quaternary sector (1)

- 2.1.5 Sales representatives market the sugar at retail stores.

Tertiary sector / Quaternary sector (1)

- 2.1.6 The sugar is exported to other countries. -

Tertiary sector (1)

- 2.1.7 Customers buy sugar online.

Tertiary sector (1)/Quaternary sector (1)

- 2.1.8 Preparation of farmland to plant sugar cane.

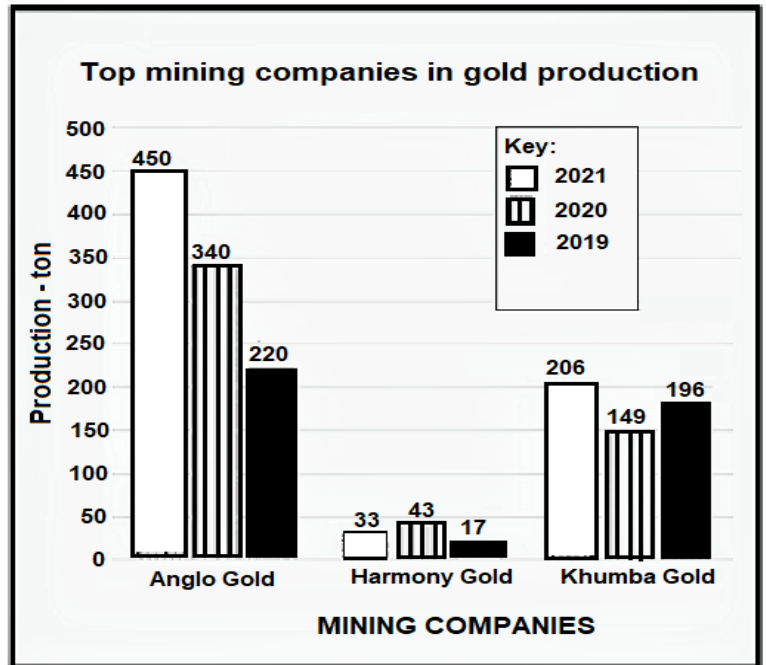
Primary sector (1)

(8 x 1) (8)

- 2.2 Refer to the infographic on gold and choose the appropriate word(s) in brackets to make the sentence TRUE. Write down only the question number (2.2.1 – 2.2.7) and the correct answer in the ANSWER BOOK.

GOLD – KEY FACTS AND FIGURES

- The Witwatersrand Basin remains the world's largest gold resource.
- Gold sales (contribution to GDP) increased by 3,7% to R72,6 billion in 2019.
- Gold production decreased to 101,3 tonnes in 2019.
- At the current gold price more than half of the South African gold mining industry is marginal.
- South African gold only accounts for 4,2% of global gold production.
- Employment in the gold sector has declined over the years.
- The gold industry currently employs 95 130 people (both skilled and unskilled).
- Total employee earnings have soared from R15,9 billion in 2008 to R24,3 billion in 2019 (27,6 billion in 2018).



[Adapted source: <https://www.moneyweb.co.za/mineweb/anglogold-ashanti-bumped-off-list-of-top-10-mining-companies/> and <https://www.mineralscouncil.org.za/sa-mining/gold>]

2.2.1 Mining is the (largest/smallest) contributor to the primary sector.

largest (1)

2.2.2 The total value of goods and services produced in a country in one year is known as the (GNP/GDP).

GDP (1)

2.2.3 The Witwatersrand Basin is located in the (Gauteng/Limpopo) province.

Gauteng (1)

2.2.4 Gold mining companies employ (unskilled and skilled/unskilled) labour only.

unskilled and skilled (1)

2.2.5 The low thermal gradient of South Africa's rock layers (reduces/increases) mining costs.

Reduces (1)

2.2.6 Anglo Gold and Khumba Gold combined, produced (656/489) tons of gold in 2021.

656(1)

2.2.7 (Anglo Gold/Harmony Gold) mining company produces the most gold in South Africa.

Anglo Gold (1)

(7 x 1) (7)

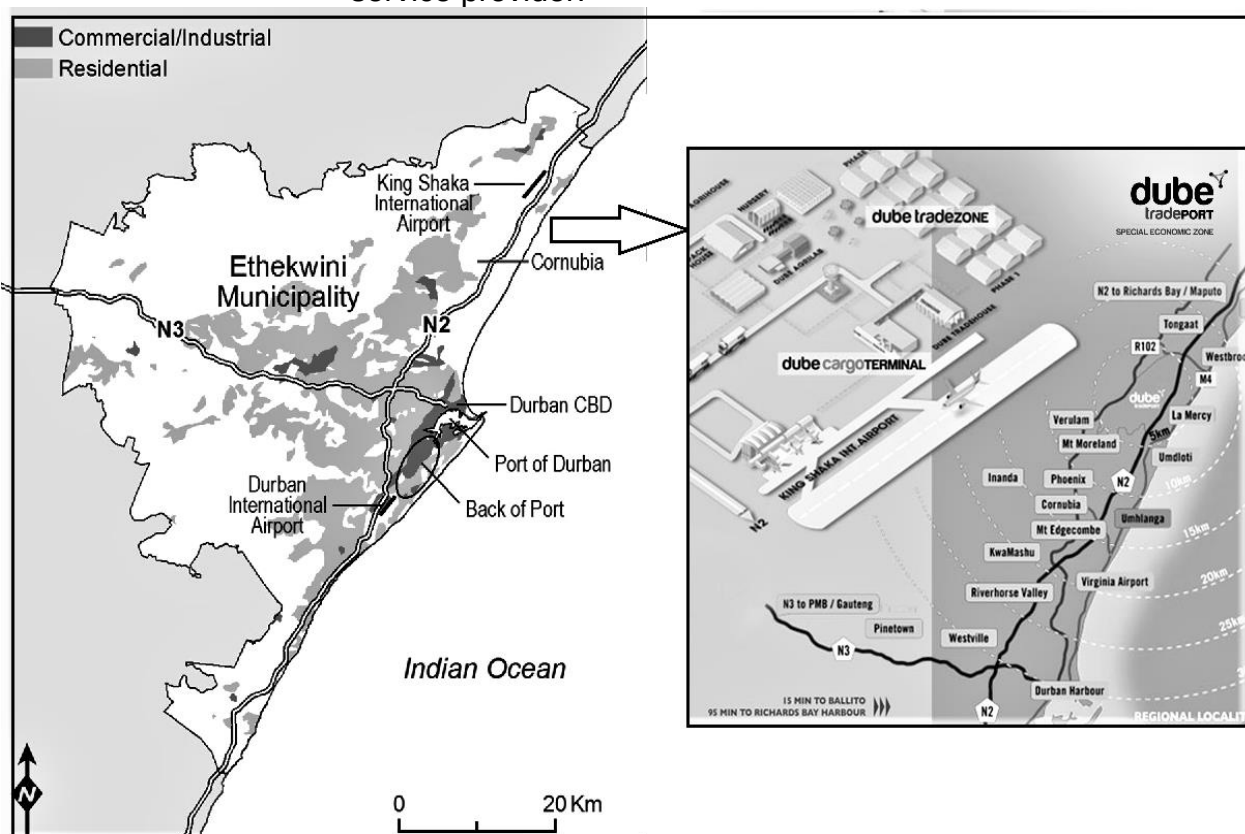
2.3 Refer to the infographic below showing information on the Dube TradePort IDZ.

DUBE TRADE PORT

Strategically located on the east coast of South Africa, linked to two of Africa's major seaports, major national roads and home to King Shaka International Airport, the Dube TradePort is strategically positioned at the intersection of local and global intermodal transport routes.

The Dube TradePort is a 50-year master-planned airfreight and passenger hub, comprising five business zones:

1. Dube Trade Zone: For electronics, pharmaceuticals and aerospace manufacturing, assembling, and distribution.
2. Dube Cargo Terminal: A state of the art cargo handling facility with digital tracking and secure cargo flow through on-site statutory bodies.
3. Dube Agri Zone: An advanced agricultural precinct that provides world-class facilities.
4. Dube City: A 12-hectare premium business and hospitality precinct, just 3 minutes from the passenger terminal.
5. Dube iConnect: A cutting-edge telecommunications platform and premier cloud service provider.



[Sources: file:///C:/Users/GEO/Downloads/208227-Article%20Text-517726-1-10-20210607%20(1).pdf
<http://www.tikzn.co.za/images/exportweek/presentations/EPW2018/Day%203%20-%20Dube%20TradePort%20Presentation.pd>
https://www.dubetradeport.co.za/Pages/Special_Economic_Zone/]

- 2.3.1 What does the abbreviation IDZ stand for?
- Industrial Development Zone (1)** (1 x 1) (1)
- 2.3.2 Identify the province in which the Dube TradePort IDZ is located.
- KwaZulu-Natal (1)** (1 x 1) (1)
- 2.3.3 Name the main physical factor that influenced the location of the Dube TradePort IDZ.
- Close to the Durban harbour (1)**
Close to the King Shaka International Airport (1)
Well-developed infrastructure (1)
[Any ONE] (1 x 1) (1)
- 2.3.4 How does the Dube TradePort IDZ create the opportunity for industrial decentralisation?
- Provides attractive service rebates/government incentives (water/electricity/transport) for relocated industries. (2)**
Provides tax rebates/concessions for industries that are decentralised. (2)
Provides well-developed infrastructure that will lower the production costs. (2)
Provides cheaper and open land for future development/growth of the industry. (2)
Provides access to skilled and unskilled labour force. (2)
Provides access to harbours and transport links for export of products. (2)
[Any ONE] (1 x 2) (2)
- 2.3.5 Discuss how the infrastructural (infrastructure) development of the Dube TradePort IDZ can contribute to a positive balance of trade for the country.
- The IDZ assisted in the development of roads for the exporting and importing of more goods. (2)**
Exporting of goods via the harbour will increase balance of trade. (2)
Exporting of goods via the airport will increase balance of trade. (2)
If more goods can be manufactured in this IDZ, more goods can be exported and will increase the balance of trade. (2)
[Any TWO] (2 x 2) (4)

- 2.3.6 Evaluate the socio-economic impact of the Dube TradePort IDZ on the local community.

The Dube TradePort will provide job opportunities that will reduce poverty. (2)

Upskilling people will help the people in the area to become skilled workers therefore they will receive a better income. (2)

Lowering of crime rates because people will have jobs. (2)

Poverty alleviation/better standard of living because Dube TradePort will bring money into the area. (2)

Improved infrastructure because of the upgrade of the roads and buildings that the community can use. (2)

Improved service delivery will help the local community to get access to running water and electricity. (2)

More/better housing will be provided for the community. (2)

Contributes to the local economy because more people will have work and be able to buy more from the local stores/increase in buying power. (2)

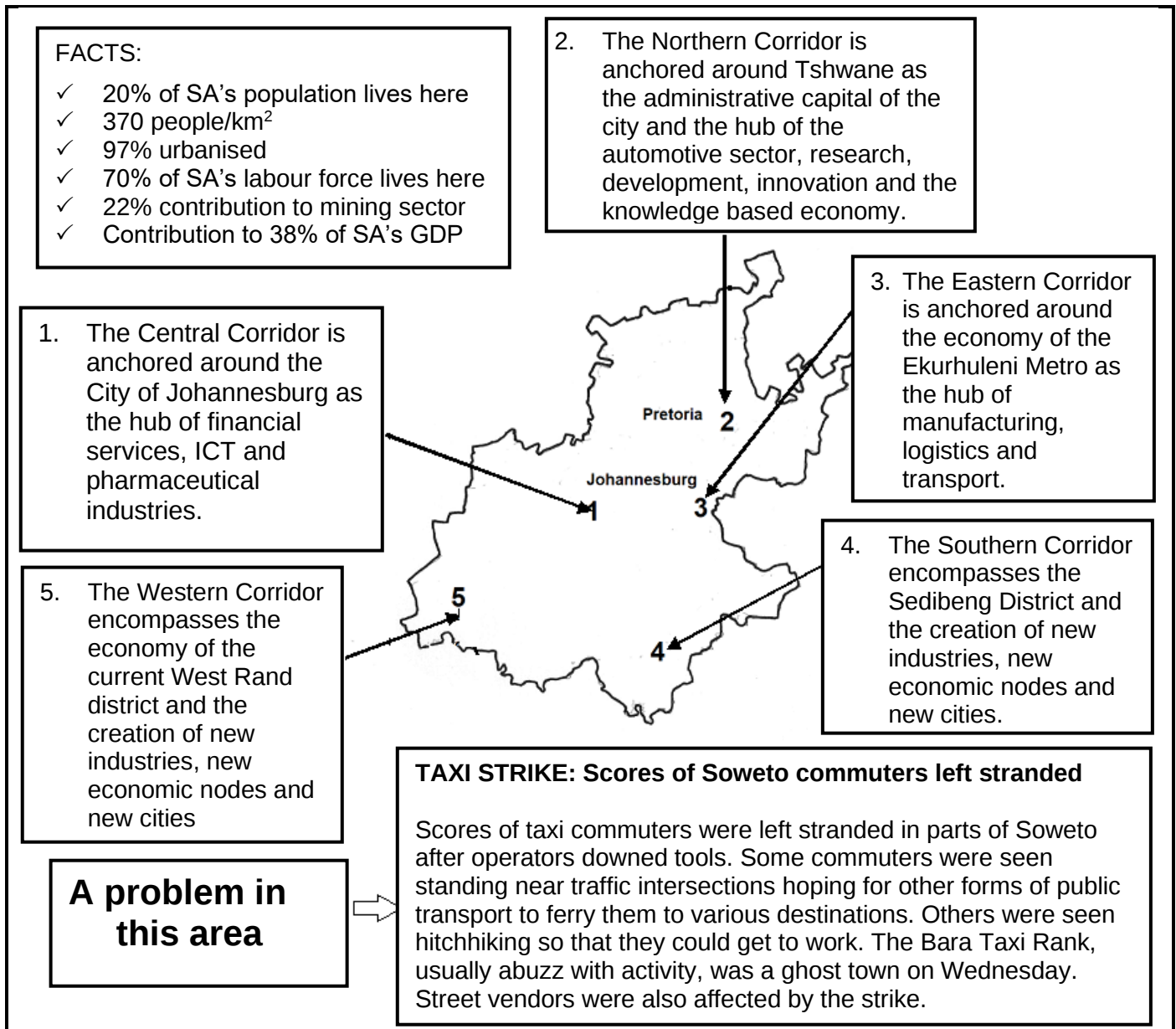
Industrialists are involved in social responsibility initiatives to build more schools and training facilities. (2)

The multiplier effect/development of associated or linked industries will provide more job opportunities. (2)

[Any THREE]

(3 x 2) (6)
(15)

- 2.4 Refer to the information in the infographic on a core industrial region in South Africa and answer the questions that follow.



[Sources: <https://link.springer.com/chapter/10.> <https://www.news24.com/Tags/Topics/taxi%20>]

2.4.1 Identify the core industrial region depicted in the source.

Gauteng/PWV/Pretoria-Witwatersrand-Vereeniging (1) (1 x 1) (1)

2.4.2 Name TWO main industrial activities from the infographic located in this core industrial region.

Pharmaceutical industries (1)
Automotive sector (Motor vehicle parts and accessories) (1) (2 x 1) (2)

2.4.3 From an economic point of view, suggest why 20% of the population in South Africa lives in this core industrial region.

It is a highly urbanised area, meaning there are many job / business opportunities. (2)
It is the economic hub of the country with two main cities in the province, namely Johannesburg and Pretoria. (2)
It contributes largely to the financial, manufacturing, transport, technology, and telecommunications sectors. (2)
This industrial area hosts a large number of overseas companies requiring a commercial base in Gauteng. (2)
It is home to the Johannesburg Stock Exchange, the largest stock exchange in Africa. (2)
Some of the largest companies in Africa and abroad are based in Gauteng, or have offices and branches here, e.g., Vodacom. (2)
[Any ONE] (1 x 2) (2)

2.4.4 Predict from the infographic, a challenge that commuters will experience in the core industrial region due to the population density and taxi strikes.

Lack of public transport (2) (1 x 2) (2)

- 2.4.5 This industrial region contributes to 38% of the country's GDP. In a paragraph of approximately EIGHT lines, analyse the economic impact that a taxi strike in this core industrial region will have on the GDP of the country.

It will have a significant impact on people getting to and from work – if they cannot get to work, they lose income. (2)

The taxi industry will lose money and they contribute a large amount to the GDP of the country. (2)

If people cannot reach their workplaces, less trade will take place therefore the GDP will decline. (2)

If people cannot go to work, factories will come to a standstill therefore no productivity. This will mean no income and the GDP will decline. (2)

The contribution of Gauteng to the GDP will decline because people will not have transport to get to work. (2)

If the workers do not go to work, they will not get paid and will have less money to spend on goods and services. (2)

The multiplier effect will be affected because people will not go to work, they will not have money to spend in the shops, which means that fewer shop workers are needed. (2)

Other industries that rely on workers using taxis will have a decline in production which means a decline in income for the day. (2)

[Any FOUR]

(4 x 2)

(8)

(15)

- 2.5 Refer to the interview between Refiwe Moloto and Zanele Khomo below, about food security in KwaZulu-Natal.

Cape Talk Show, host Refiwe Moloto chats to Zanele Khomo from the Durban Chamber of Commerce and Industry about the looting in KZN.

The Durban Chamber of Commerce and Industry has warned that the civil unrest and public violence in KwaZulu-Natal will most likely lead to job losses and food shortages in the country.

"KZN specifically contributes to 16% of South Africa's GDP, so such damage is detrimental to our economy", says Zanele Khomo, the Chief Growth Officer of the Durban Chamber of Commerce and Industry.

Khomo says the looting and destruction will result in food insecurity and loss of livelihoods as many factories and food producers shut down.

According to the Durban Chamber of Commerce and Industry, the cost of the damage in the province had already exceeded R100 million on Monday and it's expected to keep rising in the days and weeks to come.

Khomo says officials from the Durban Chamber of Commerce and Industry met with KwaZulu-Natal Premier Sihle Zikalala on Monday to provide an assessment of the situation.

[Adapted from source: <https://www.capetalk.co.za/articles/421778/kzn-looting-will-affect-food-security-job-security-and-livelihoods-durban-chamber-of-commerce>, Capetalk 567 AM]

2.5.1 Define the term *food insecurity*.

A condition in which people do not have enough nutritious food and may not know where their next meal will come from. (2)

[CONCEPT]

(1 x 2)

(2)

2.5.2 Quote ONE direct consequence of the civil unrest and public violence in KwaZulu-Natal, on food security, from the extract.

Food shortage (1)

(1 x 1)

(1)

2.5.3 Describe how the unrest might have led to food insecurity.

The rioting and looting, especially in KZN, affected farm production as there were no workers. (2)

The rioting and looting hampered critical activities such as harvesting. (2)

Some products could not be harvested as a result of riot-related vandalism. (2)

Farmers failed to transport produce to the Durban ports for export. (2)

Deliveries to the market were not possible. (2)

Many workers in the agricultural sector in KZN were not able to report for work during the rioting. (2)

Distribution centres were not accessible, for the farming community to deliver their produce. (2)

Distribution centres were not able to deliver food to their clients to sell. (2)

Rioting and looting resulted in income losses of highly perishable products. (2)

[Any ONE]

(1 x 2)

(2)

2.5.4 Discuss the relationship between unemployment and food insecurity.

Unemployed people are less able to buy enough healthy food to feed themselves. (2)

When unemployment increases, food insecurity becomes a more serious problem. (2)

Hunger and poor nutrition can result in physical and mental weaknesses which will result in absenteeism from work. (2)

Food insecurity can cause unemployment and poverty because of the poor health of workers. (2)

The higher the unemployment, the higher the rate of food insecurity. (2)

[Any TWO]

(2 x 2)

(4)

- 2.5.5 What strategies can the government implement to prevent food insecurity in the areas affected by the civil unrest and public violence in KwaZulu-Natal?

Protect food supply chains and consider them essential services. (2)

Prioritise the supply of food to the affected areas. (2)

Place an export ban on food products and supply the affected areas first. (2)

Create security at the food markets in these areas. (2)

Enhance food availability as a priority in the affected areas. (2)

Food emergency management systems need to be put in place. (2)

The movement of goods, including food and agricultural produce on the roads to these areas must be prioritised. (2)

Subsidise food prices so that people can afford to buy food. (2)

[Any THREE]

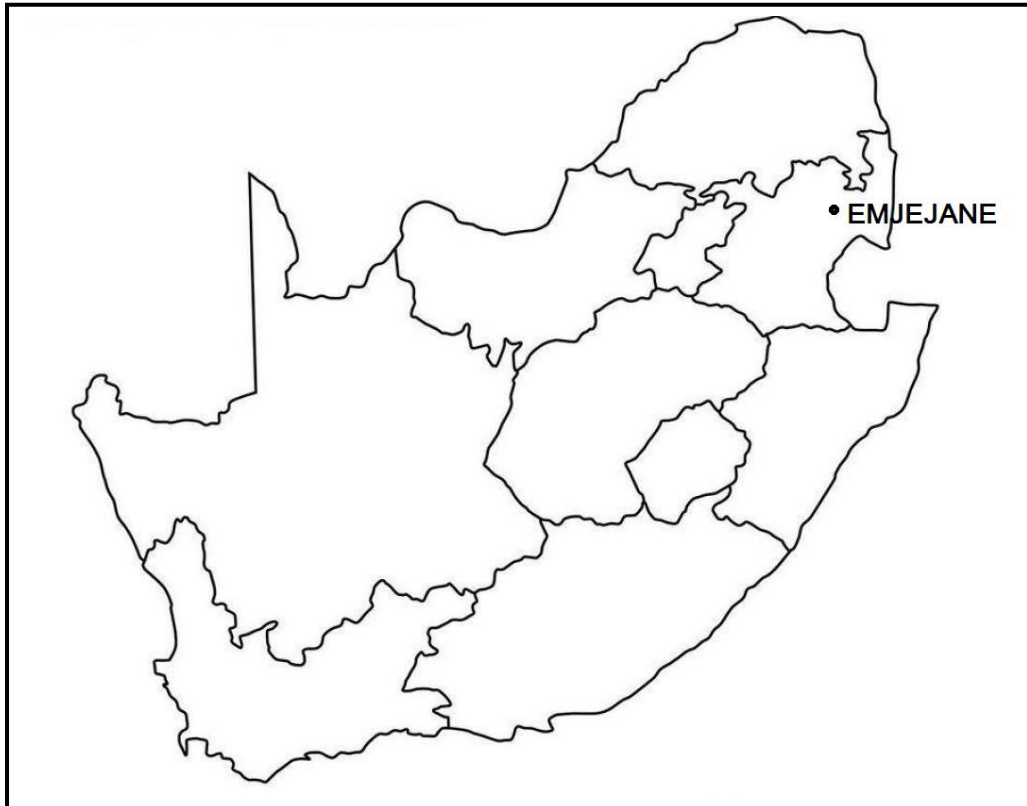
(3 x 2)

(6)

(15)

[60]

TOTAL SECTION A: 120

SECTION B**QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES****BACKGROUND INFORMATION ON EMJEJANE**

Coordinates: 25°26' S 31°41' E

Emjejane, formally known as Hectorspruit, is a small farming town situated between Kaapmuiden and Komatipoort on a southern tributary of the Crocodile River in Mpumalanga, South Africa. The farms in the region produce sugar cane, subtropical fruit and vegetables. The location of Emjejane creates excellent opportunities for prospective investors and businesses to establish themselves in the area along the N4 transport route servicing the Maputo Spatial Development Corridor.

[Source: <https://mpumalanga.online/emjejane/>]

The following English terms and their Afrikaans translations are shown on the topographic map.

ENGLISH	AFRIKAANS
Diggings	Uitgrawings
Firebreak	Voorbrand

3.1 MAP SKILLS AND CALCULATIONS

3.1.1 **B (1)/country town**

3.1.2 **C (1)/Mpumalanga**

3.1.3 **D (1)/all of the above** (3 x 1) (3)

Refer to spot height 274 (block **A1**) and spot height 271 (block **B3**) on the topographic map.

3.1.4 In what year was the map constructed?

2014 (1) (1 x 1) (1)

3.1.5 Use the answer for QUESTION 3.1.4 to calculate the current difference in years.

2022 – 2014 = 8 (1) years (1 x 1) (1)

3.1.6 The annual change is 5' westwards. Calculate the mean annual change in 2022.

8 x 5' = 40' (1) (1 x 1) (1)

3.1.7 Use the answers to QUESTION 3.1.6 to calculate current magnetic declination.

18° 28' + 40' = 18° 68' = 19° 08' W of True North (1) (1 x 1) (1)

3.1.8 Calculate the true bearing of spot height 271 (in block **B3**) from spot height 274 (in block **A1**).

106° (2) – range (105° – 107°) (1 x 2) (2)

3.1.9 Use the answers to QUESTION 3.1.7 and 3.1.8 to calculate the magnetic bearing from spot height 274 in block **A1**, to spot height 271 in block **B3**.

106° + 19° 08' = 125° 08' (1) Range (124° 08' – 126° 08') (1 x 1) (1)
(10)

3.2 MAP INTERPRETATION

Refer to the farming (Hectorspruit Citrus Estates) in block **D1** of the topographic map.

- 3.2.1 What is the purpose of the straight rows of trees on the Hectorspruit Citrus Estate?

Acts as a wind barrier / The row of trees protects the citrus trees from the wind. (1) (1 x 1) (1)

- 3.2.2 Does farming in this area represent large-scale or small-scale farming?

Large scale farming (1) (1 x 1) (1)

- 3.2.3 Provide evidence from the map to support your answer to QUESTION 3.2.2.

***Growing of crops on a large piece of land/estate (2)
Production is on a large scale. (2)
Generally, monoculture (One type of crop – Citrus) (2)***

[Any ONE] (1 x 2) (2)

Refer to the N4 highway that runs from the east to the west on the topographic map

- 3.2.4 Identify the SDI that developed along the N4 highway.

Maputo Spatial Development Corridor (1) (1 x 1) (1)

- 3.2.5 Give evidence from the topographic map that the SDI mentioned in QUESTION 3.2.4 stimulates infrastructure development in Emjejane.

Roads under construction (1) (1 x 1) (1)

- 3.2.6 Discuss how the development identified in QUESTION 3.2.5 could have resulted in economic growth in Emjejane.

***Provides jobs for locals in the construction of roads – uplift communities. (2)
Provides other infrastructure development (give examples). (2)
Encourages entrepreneurship – locals open businesses to supply the workers employed to build the roads. (2)
Encourages other related industries to develop around the N4 therefore creating more employment opportunities and generates more income. (2)
Passing road traffic will result in business development as the commuters will stop and buy produce. (2)
Passing traffic will bring income into the area. (2)
Development of roads encourages transportation of goods. (2)
[Any ONE]*** (1 x 2) (2)

Refer to Settlement **7** and Settlement **8** on the orthophoto map.

3.2.7 Which of the settlements, **7** or **8**, is considered an informal settlement?

7 (1) (1 x 1) (1)

3.2.8 Provide evidence from the orthophoto map to support your answer to QUESTION 3.2.7.

No visible infrastructure e.g., roads (2)
No proper housing structures (2)
Dwellings look temporary/makeshift dwellings. (2)
Development looks unplanned. (2)
Clustering of building structures (2)

[Any ONE] (1 x 2) (2)

3.2.9 Where would most of the residents of the informal settlement be employed?

On the citrus estate (1)
In road construction (1)

[Any ONE] (1 x 1) (1)
(12)

3.3 GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

Refer to the railway tracks in Block **A1** and **B1** on the orthophoto map.

3.3.1 Data integration is combining different types of data and data layers of a specific area for the purpose of decision-making. List TWO data layers that an engineer will consider before planning the route the railway tracks will follow.

Slope/relief of the land (1)
Drainage/water (1)
Type of soil/underlying rock structure (1)
[Any TWO]

(2 x 1) (2)

3.3.2 Explain how data integration assisted city engineers when they planned the development of the railway tracks.

A summary of integrated data is produced which makes it easier to analyse data to determine the best way for the location of the railway line. (2)
Examples: The slope/relief will affect the drainage of water. (2)
The underlying rock structure and the relief of the area will support the building of railway tracks. (2)
[Any ONE]

(1 x 2) (2)

Refer to the orthophoto map.

- 3.3.3 Data for the orthophoto map was gathered through the process of remote sensing. Define *remote sensing*?

Getting data about the earth's surface from a distance, without being in contact with the earth's surface. / Getting data from above / vertical (2)

[CONCEPT]

(1 x 2) (2)

- 3.3.4 How did remote sensing assist developers in the development of the Maputo Corridor (N4) along blocks **D4** and **D5**?

Data could be collected for inaccessible areas to determine where the ideal location will be to build the corridor. (2)

Large areas can be captured as images and analysed to identify the ideal area for the building of the corridor. (2)

Observation of the area could be done quickly. (2)

Developers had consistent images over time, of the area, to determine what would be the most cost effective. (2)

[Any ONE]

(1 x 2) (2)
(8)

TOTAL SECTION B: 30

TOTAL: 150



VOORBEREIDENDE EKSAMEN

2022

NASIENRIGLYNE

GEOGRAFIE (VRAESTEL 2) (10782)

28 bladsye

BEGINSELS VIR NASIEN VAN GEOGRAFIE – 2022

Die volgende nasienbeginsels is ontwikkel om die nasienprosesse te standaardiseer.

NASIEN

- ALLE vrae MOET nagesien word, ongeag of dit korrek of verkeerd is.
- Waar die maksimum punte vir 'n spesifieke vraag toegeken is, plaas 'n **(M)** oor die res van die teks om aan te dui dat die maksimum punte behaal is.
- 'n Duidelike, netjiese regmerkies moet gebruik word: √
 - o Indien EEN punt toegeken word, moet EEN regmerkies gebruik word: √
 - o Indien TWEE punte toegeken word, moet TWEE regmerkies gebruik word: √√
 - o Die regmerkies moet geplaas word by die FEIT waarvoor die punt toegeken word.
 - o Regmerkies moet KLEIN gehou word, aangesien verskeie vlakke van moderering kan plaasvind.
- Verkeerde antwoorde moet met 'n duidelike, netjiese kruisie gemerk word: X
 - o Gebruik MEER as een kruisie (x) oor 'n paragraaf/besprekingstylvrae om aan te dui dat alle feite in ag geneem is.
 - o MOENIE 'n streep deur 'n verkeerde antwoord trek nie.
 - o MOENIE die verkeerde feite onderstreep NIE.

LET OP DIE VOLGENDE

- Indien die nommering verkeerd is of weggelaat is, solank die volgorde van antwoorde op vrae gevolg word, kan kandidate gekrediteer word.
- Spelfoute – as die antwoord herkenbaar is, ken die punte toe mits die betekenis korrek is.
- Wees sensitief vir die konteks van 'n antwoord, wat op 'n ander manier gestel kan word.
- In vrae waar 'n letter die verwagte antwoord is, maar die leerder die werklike antwoord skryf – ken die punte toe.

TOTALE EN OORDRAG VAN PUNTE

- Elke subvraag moet opgetel word.
 - o Vrae in Afdeling A het vyf onderafdelings, daarom word vyf subtotale per vraag vereis. Afdeling B het drie onderafdelings en drie subtotale.
 - o Onderafdelingstotale moet in die regterkantse kantlyn aan die einde van die onderafdeling geskryf en onderstreep word.
 - o Subtotale moet leesbaar geskryf word.
 - o Laat ruimte oop om gemodereerde punte op verskillende vlakke te skryf.
- Tel subtotale op en dra die totaal oor na die boonste linkerkantse kantlyn langs die vraagnommer.
- Dra totale oor na die omslag van die antwoordboek.

MODERERING

Nasien moet op elke vlak van moderering geskied op dieselfde manier as die aanvanklike nasien. Alle riglyne vir nasien moet nagekom word.

Indien 'n punt vir 'n subvraag na moderering verander word, moet die moderator die nasiener se punt doodtrek en die nuwe punt soos volg neerskryf, 12 16.

Die totaal vir die vraag moet herbereken word, en geskrap word, en die nuwe totaal moet soos volg neergeskryf word, 26 36.

AFDELING A: LANDELIKE EN STEDELIKE NEDERSETTINGS EN DIE EKONOMIESE GEOGRAFIE VAN SUID-AFRIKA

VRAAG 1: LANDELIKE EN STEDELIKE NEDERSETTINGS

1.1 Verskeie opsies word verskaf as 'n moontlike antwoord op die volgende vrae. Kies die korrekte antwoord en skryf slegs die letter (A – D) langs die vraagnommer (1.1.1 – 1.1.8) in die ANTWOORDBOEK neer, bv. 1.1.9 D.

1.1.1 Die hoof kommersiële sone van 'n stedelike gebied is die ...

A (1)/sentrale sakekern

1.1.2 Die ... grondgebruiksone word gekenmerk deur die meeste besoedeling.

C (1)/industriële

1.1.3 Die ... grondgebruiksone is onaantreklik, met hoë grondwaardes.

B (1)/oorgang

1.1.4 Die grondwaarde in hierdie grondgebruiksone is die goedkoopste.

C (1)/Landelik-stedelike randgebied

1.1.5 Die grondgebruiksone wat die hoogste geboudigtheid.

A (1)/Sentrale sakekern

1.1.6 'n Kommersiële sone, geleë in die voorstede, staan bekend as die ...

C (1)/Voorstedelike besigheidsdistrik

1.1.7 Die grondgebruiksone waar die meeste mense woon.

D (1)/Residensiële sone

1.1.8 Lughawens is gewoonlik in hierdie grondgebruiksone geleë.

B (1)/Landelik-stedelike randgebied

(8 x 1) (8)

- 1.2 Kies 'n term uit KOLOM B wat by die beskrywing in KOLOM A pas. Skryf slegs die letter (A – H) langs die vraagnommer (1.2.1 – 1.2.7) in die ANTWOORDBOEK neer, byvoorbeeld 1.2.8 I.

1.2.1 **H (1) Natpunt**

1.2.2 **G (1)/Landelike nedersettings**

1.2.3 **F (1)/Verspreid**

1.2.4 **B (1)/Terrein**

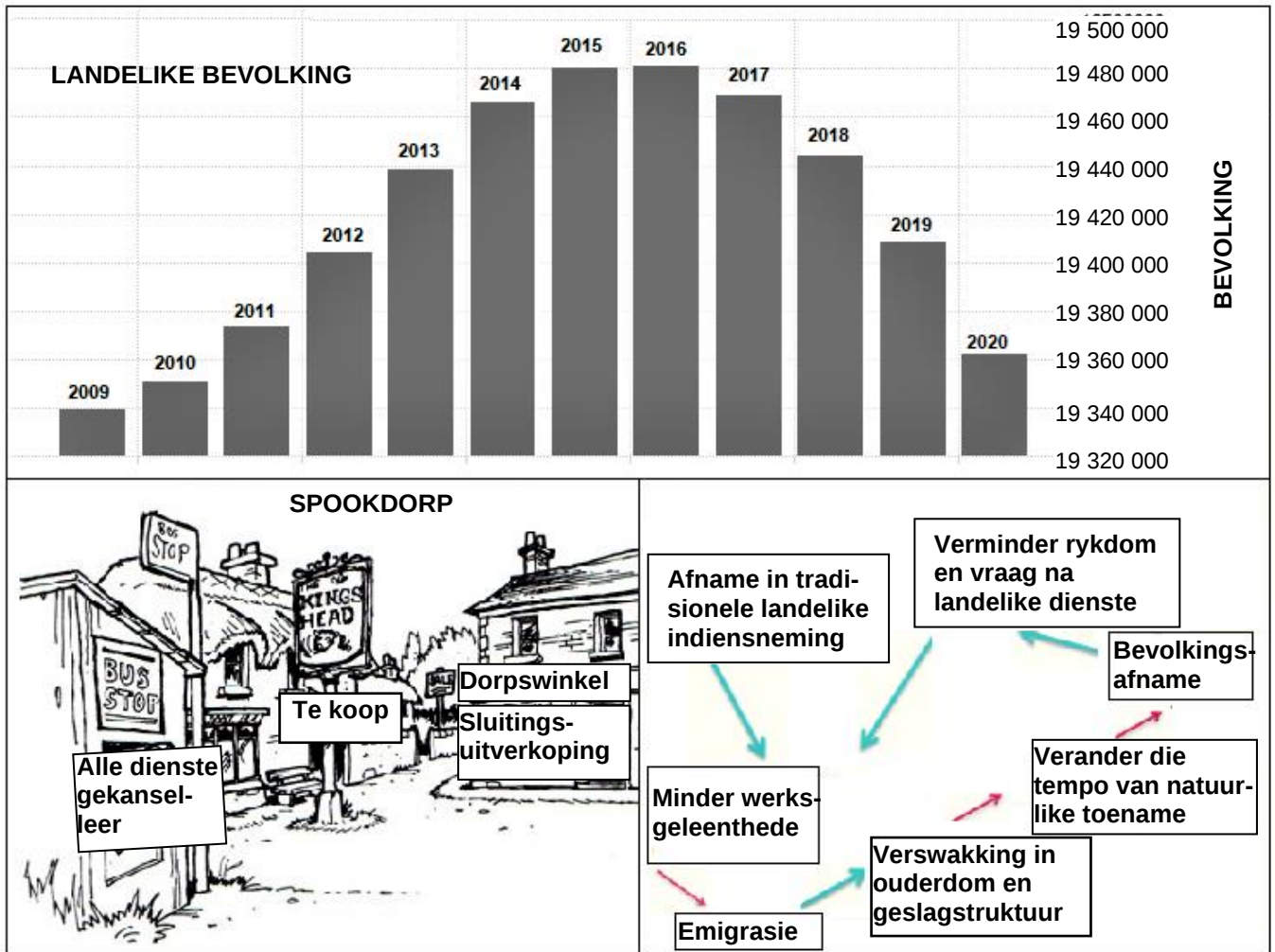
1.2.5 **C (1)/Kern**

1.2.6 **A (1)/Stedelike nedersettings**

1.2.7 **E (1)/Ligging**

(7 x 1) (7)

- 1.3 Verwys na die infografika oor Suid-Afrika se landelike bevolkingstendense van 2009 tot 2020.



[Bronne: <https://tradingeconomics.com/south-africa/rural-population-wb-data.html>; <https://slideplayer.com/slide/4385253/>; <https://slideplayer.com/slide/7501747/>]

- 1.3.1 Definieer die term *landelike ontvolking*.

Die afname in die aantal mense wat in 'n landelike gebied woon. (2)

[KONSEP]

(1 x 2) (2)

- 1.3.2 Verskaf 'n bewys vanaf die bevolkingsgrafiek dat landelike ontvolking 'n werklikheid in Suid-Afrika is.

Die grafiek toon 'n afname in bevolking vanaf 2017 (19 480 000) tot 2020 (19 320 000). (1)

(1 x 1) (1)

- 1.3.3 Beskryf die impak van landelike ontvolking op die ekonomie van landelike gebiede.

Sluiting van skole, klinieke en dienste (bv. plase sal gesluit word) beteken mense sal hul werk verloor. (2)

Daar sal verminderde welvaart in landelike gebiede wees, dus geen koopkrag nie. (2)

Die vraag na landelike dienste sal verminder – daar sal mense sonder werk en sonder 'n inkomste wees. (2)

Winkels sal sluit aangesien die koopmark baie kleiner sal wees. (2)

Dorpe sal spookdorpe word omdat daar minder ekonomiese aktiwiteite sal wees om die instandhouding van die infrastruktuur te ondersteun. (2)

Minder werksgeleenthede dus 'n kleiner inkomste. (2)

[Enige TWEE. Voorbeelde kan gekoppel word] (2 x 2) (4)

- 1.3.4 In 'n paragraaf van ongeveer AGT reëls maak voorstelle aan die plaaslike regering hoe om die tendens van landelike ontvolking te verminder, en verduidelik wat die impak daarvan sal wees op die landelike ekonomie soos in die infografika aangedui word.

Adverteer landelike gebiede om mense na die gebied terug te lok vir meer koopkrag. (2)

Skep ontspanningsbesienswaardighede in landelike gebiede om mense na hierdie gebiede te lok/mense in die area te hou. (2)

Ontwikkel die landelike gebiede in toeriste-aantreklikhede om daardie gebiede 'n ekonomiese inspuiting te gee. (2)

Herstel ou geboue in toeriste-aantreklikhede of hotelle om mense na die area te lok. (2)

Ontwikkel dienste (aanvaar voorbeelde van dienste) om die jeug terug te lok na die landelike gebiede. (2)

Desentralisasie van nywerhede na landelike gebiede om werk te skep. (2)

Skuif nywerhede na landelike gebiede om meer werkers na die landelike gebiede te lok. (2)

SDI sal daartoe lei dat die plaaslike regering in ruimtelike ontwikkeling in die gebied belê. (2)

Infrastruktuurontwikkeling om beleggings in die gebied te lok. (2)

[Enige VIER] (4 x 2) (8)

(15)

- 1.4 Verwys na die gevallestudie oor die groei van Suid-Afrikaanse stedelike nedersettings hieronder.

DIE GROEI VAN SUID-AFRIKAANSE STEDELIKE NEDERSETTINGS

In 1990 het 52% van Suid-Afrikaners in stedelike nedersettings gewoon, maar 'n skamele 30 jaar later woon meer as 67% van Suid-Afrika se bevolking in stede en dorpe. Die bevolkingsdigtheid binne die land het gestyg, en staan op 46 inwoners per vierkante kilometer, wat beteken dat meer mense 'n kleiner ruimte deel. Baie geleenthede vir werk en ontspanning kan in die stedelike dele van Suid-Afrika gevind word. In teorie skep stedelike nedersettings toestande vir verbeterde gesondheid, onderwys en ekonomiese aktiwiteite omdat dienste oor 'n kleiner gebied gekonsentreer is. In die praktyk, vinnige verstedeliking verswak egter omgewings- en gesondheidstoestande, plaas groot druk op die verskaffing van dienste en moedig dit misdaad en sosiale spanning aan.

Gauteng het die grootste en vinnigste groeiende bevolking van al nege provinsies in Suid-Afrika. Die provinsie het tussen 2010 en 2020 'n bevolkingstoename van 33,7% ervaar, wat meer as dubbel is van die gemiddelde nasionale bevolkingstoename.

[Bron: Aangepas vanuit: Oxford South African Thematic Atlas for grades 7-9]

- 1.4.1 Definieer die term *verstedeliking*.

'n Toename in die persentasie of proporsie mense wat in stedelike gebiede woon. (2)

[KONSEP]

(1 x 2) (2)

- 1.4.2 Verskaf EEN faktor vanuit die gevallestudie wat aandui waarom mense verkies om in stedelike gebiede te woon.

Baie geleenthede vir werk en ontspanning (1)

Verbeterde gesondheid (1)

Verbeterde onderwys (1)

Ekonomiese aktiwiteite (1)

Dienste gekonsentreer in 'n klein area (1)

[Enige EEN]

(1 x 1) (1)

- 1.4.3 Volgens die gevallestudie verswak "vinnige verstedeliking omgewings- en gesondheidstoestande". Beskryf hoe vinnige verstedeliking die agteruitgang van omgewings- en gesondheidstoestande tot gevolg het.

Omgewing:

Meer mense en aktiwiteite in die stedelike gebiede sal meer omgewingsprobleme tot gevolg hê, bv., besoedeling. (2)

Hoër bevolkingsdigtheid sal lei tot uitputting van natuurlike hulpbronne. (2)

Meer infrastruktuurontwikkeling, bv., paaie, huise sal die vernietiging van die natuurlike omgewing tot gevolg hê. (2)

Meer mense sal lei tot verhoging in temperatuur (stedelike hitte-eiland/besoedelingskoepel/rookmis) wat lei tot verandering in die natuurlike omgewing. (2)

Gesondheid:

Meer mense sal 'n toename in besoedeling veroorsaak wat 'n negatiewe uitwerking op die gesondheid van mense sal hê. (2)

Hoër bevolkingsdigtheid lei tot meer stresverwante harttoestande/angstigtheid. (2)

Hoër bevolkingsdigtheid sal lei tot die vinnige verspreiding van siektes, bv., COVID-19. (2)

Hoër bevolkingsdigtheid sal druk op gesondheidsdienste plaas wat sal lei tot verslegte gesondheidstoestande van die bevolking. (2)

[EEN moet op die omgewing wees en EEN moet op gesondheidstoestande wees]

[Enige TWEE]

(2 x 2) (4)

- 1.4.4 Verduidelik waarom die gevallestudie na Gauteng verwys as die provinsie met die grootste en vinnigste groeiende bevolking in Suid-Afrika.

Gauteng is sentraal geleë wat beteken dat dit is baie toeganklik wees via pad, lug en spoor. (2)

Gauteng het 'n hoë konsentrasie nywerhede. (2)

Gauteng het 'n goed ontwikkelde infrastruktuur. (2)

Gauteng is die ekonomiese middelpunt van die land. (2)

Baie geleenthede vir werk en ontspanning kan in Gauteng gevind word. (2)

[Enige EEN]

(1 x 2) (2)

- 1.4.5 Evalueer die effek van verstedeliking op die verskaffing van dienste in Gauteng.

Meer mense sal veilige, redelik beskikbare watervoorrade verminder. (2)

Hoë vraag na water lei tot swak voorsiening van water vir sanitasie, dreinerings en verkryging van vaste afval. (2)

'n Hoë aanvraag na dienste sal 'n begrotingsdruk op munisipaliteite plaas. (2)

Hoë vraag na elektrisiteit sal die lewering van elektrisiteit onder druk plaas as gevolg van die toenemende persentasie mense in stedelike gebiede. (2)

Hoër bevolking vereis dat meer klinieke gebou word om mediese dienste aan 'n hoër bevolking in stedelike gebiede te verskaf. (2)

Meer mense in stedelike gebiede beteken meer mense wat rommel strooi wat op sy beurt beteken dat meer bestee moet word aan die verwydering van vullis. (2)

Druk op reeds onderdrukte openbare vervoerstelsels – mense maak gebruik van “Uber/Bolt” – meer druk op pendelaars se sakke. (2)

Groter vraag na opvoedkundige dienste. (2)

[Enige DRIE]

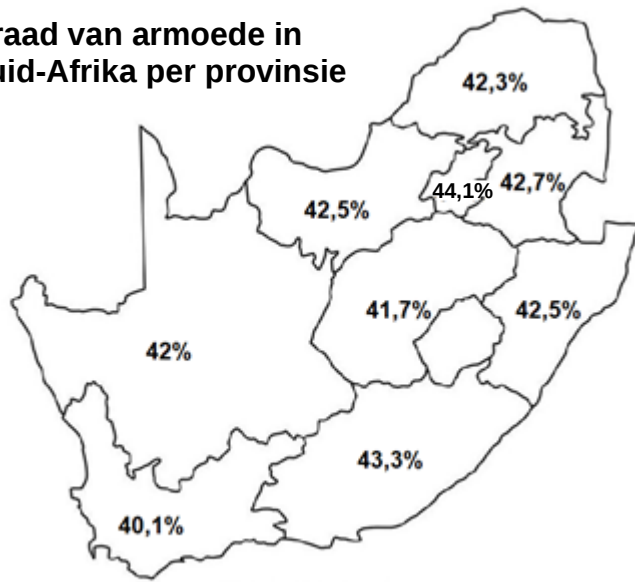
(3 x 2) (6)

[Aanvaar enige stedelike dienste]

(15)

1.5 Verwys na die volgende infografika oor armoede in Suid-Afrika.

Graad van armoede in Suid-Afrika per provinsie



Armoede is maklik om te sien, maar minder maklik om te definieer – of om oor 'n stad, 'n provinsie of 'n land te meet. Baie maatstawwe van armoede is op geld gebaseer. As 'n persoon op minder as 'n sekere drempel van inkomste leef, word dit beskou dat hulle in armoede leef.

[Robert Haveman](#)

INFORMELE NEDERSETTING



[Bron: <https://southafrica-info.com/people/mapping-poverty-in-south-africa/>]

- 1.5.1 (a) Identifiseer die provinsie in die infografika met die hoogste armoedesyfer in Suid-Afrika.

Gauteng (1)

(1 x 1)

- (b) Verklaar die rede vir die hoër armoedekoers in die provinsie wat in VRAAG 1.5.1(a) geïdentifiseer is.

Groot toestroming van mense uit ander provinsies of lande verhoog die mededinging om werk. (2)

Laer vergoeding as gevolg van 'n groot poel van arbeiders. (2)

Werkloosheid as gevolg van 'n groot aantal immigrante wat bereid is om te werk vir 'n laer betaling. (2)

Werkloosheid as gevolg van 'n gebrek aan vaardighede en kwalifikasies. (2)

[Enige EEN]

(1 x 2) (2)

- 1.5.2 Gee TWEE voorbeelde wat aandui dat die mense in die fotobeeld van die infografika in armoede leef.

Swak boustrukture (1)

Kinders is in die strate en nie by die skool nie/gebrek aan onderwys (1)

Mense wat self take doen omdat hulle nie 'n professionele persoon kan bekostig om die werk/ bewyse van handearbeid op foto (1)

Swak infrastruktuur (bv., behuising, paaie) (1)

[Enige TWEE]

(2 x 1) (2)

- 1.5.3 Verduidelik hoe werkloosheid bydra tot armoede in stedelike gebiede.

Mense sonder 'n inkomste kan nie bekostig om verbande/huur te betaal nie en wend hulle dus tot informele nedersettings. (2)

Mense sonder 'n inkomste kan hulself nie voed nie en dit lei tot meer bedelaars. (2)

Hoë armoedekoers as gevolg van werkloosheid plaas meer druk op die regering in die uitreiking van maatskaplike toelaes/meer toelaes sal betaal moet word. (2)

Groter druk op belastingbetalers om toelaes te subsidieer. (2)

Toename in die aantal haweloses aangesien hulle nie 'n inkomste het om behoorlike huise te bekostig nie. (2)

Werkloosheid sal lei tot die toename in misdaad in stedelike gebiede. (2)

Munisipaliteite bestee geld om die armes te voed in plaas daarvan om geld te bestee aan die verbetering van infrastruktuur, ens. (2)

[Enige TWEE]

(2 x 2) (4)

- 1.5.4 Stel maniere voor hoe die plaaslike regering wat verantwoordelik is vir die gebied in die fotobeeld hierbo, armoede kan verminder.

Help die inwoners met werkskepping, bv. entrepreneursprogramme. (2)

Fokus op projekte wat volhoubare inkomste in die gemeenskap kan genereer. (2)

Verspreiding van kos, klere en basiese benodigdhede aan die mense wat in die informele nedersetting woon. (2)

Voorsien die inwoners van goedkoper dienste soos elektrisiteit en water. (2)

Voorsien suksesvolle mentorskapprogramme, lewensvaardigheidskursusse en loopbaanbeplanningsprojekte aan die inwoners van die area. (2)

Ontwikkel vroue om uitreikprogramme in die area uit te voer. (2)

Belê geld in vaardigheidsontwikkeling sodat mense 'n geleentheid kan kry om 'n ordentlike werk te kry om 'n behoorlike inkomste te verdien. (2)

Verhoog toelaes om meer inflasieverwant te wees. (2)

Verskaf opleidingsgeleenthede aan inwoners om in spesifieke werke te spesialiseer sodat hulle werk kan kry om 'n inkomste te verdien. (2)

Gaan in vennootskap met suksesvolle besighede buite die gebied om geleenthede in die gebied in te bring vir mense om 'n inkomste te verdien. (2)

[Enige DRIE]

(3 x 2) (6)
(15)

[60]

VRAAG 2: EKONOMIESE GEOGRAFIE VAN SUID-AFRIKA

- 2.1 Gee EEN term om elk van die volgende ekonomiese aktiwiteite in die suikerbedryf te beskryf, deur 'n term uit die lys hieronder te kies. Jy mag 'n term meer as een keer gebruik. Skryf slegs die term langs die vraagnommer (2.1.1 – 2.1.8) in die ANTWOORDBOEK neer.

Primêre sektor, Sekondêre sektor, Tersiere sektor, Kwaternêre sektor

- 2.1.1 'n Suikerboer neem arbeiders in diens om suikerriet te oes.

Primêre sektor (1)

- 2.1.2 Suikerriet word per vragmotor na 'n suikerfabriek vervoer.

Tersiere sektor (1)

- 2.1.3 Suiker word by die raffinadery vervaardig.

Sekondêre sektor (1)

- 2.1.4 'n Advertensie-agentskap word gebruik om die logo vir die verpakking van die suiker te ontwerp.

Kwaternêre sektor (1)

- 2.1.5 Verkoopsverteenwoordigers bemark die suiker by kleinhandelwinkels.

Tersiere sektor/ Kwaternêre sektor (1)

- 2.1.6 Die suiker word na ander lande uitgevoer.

Tersiere sektor (1)

- 2.1.7 Kliënte koop suiker aanlyn.

Tersiere sektor (1)/Kwaternêre sektor (1)

- 2.1.8 Voorbereiding van landbougrond om suikerriet te plant.

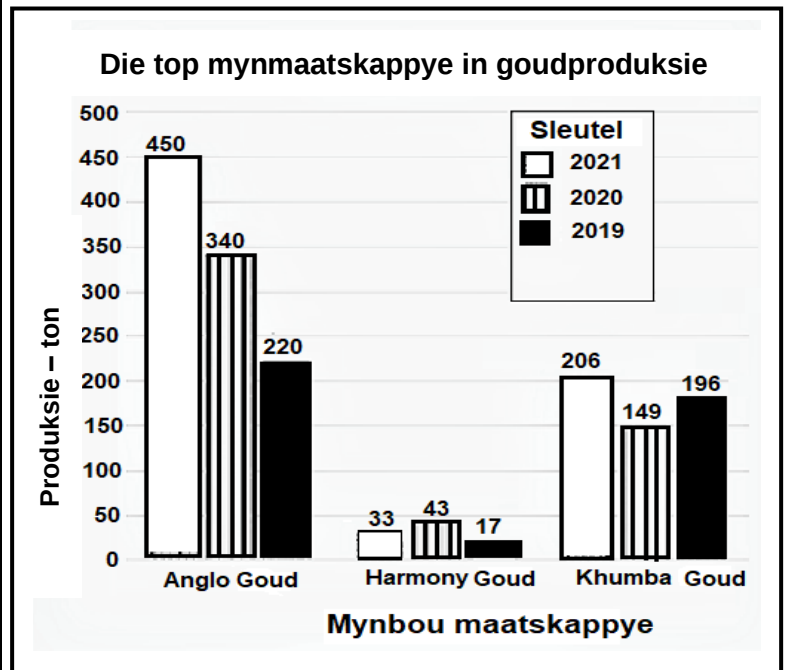
Primêre sektor (1)

(8 x 1) (8)

- 2.2 Verwys na die infografika oor goud en kies die toepaslike woord(e) tussen hakies om die sin WAAR te maak. Skryf slegs die vraagnommer (2.2.1 – 2.2.7) en die korrekte antwoord in die ANTWOORDBOEK neer.

GOUD – SLEUTELFEITE EN SYFERS

- Die Witwatersrandkom bly die wêreld se grootste goudhulpbron.
- Goudverkope (bygedra tot BBP) het in 2019 met 3,7% tot R72,6 miljard gestyg.
- Goudproduksie het in 2019 afgeneem tot 101,3 ton.
- Teen die huidige goudprys is meer as die helfte van die Suid-Afrikaanse goudmynbedryf marginaal.
- Suid-Afrikaanse goud maak slegs 4,2% van wêreldwye goudproduksie uit.
- Indiensneming in die goudsektor het oor die jare afgeneem.
- Die goudbedryf het tans 95 130 mense in diens (beide geskoolde en ongeskoolde).
- Totale werknemersverdiensite het gestyg van R15,9 miljard in 2008 tot R24,3 miljard in 2019 (27,6 miljard in 2018).



[Aangepaste bron: <https://www.moneyweb.co.za/mineweb/anglogold-ashanti-bumped-off-list-of-top-10-mining-companies/> en <https://www.mineralscouncil.org.za/sa-mining/gold>]

2.2.1 Mynbou is die (grootste/kleinste) bydraer tot die primêre sektor.

grootste (1)

2.2.2 Die totale waarde van goedere en dienste wat in 'n land in een jaar geproduseer word, staan bekend as die (BNP/BBP).

BBP (1)

2.2.3 Die Witwatersrandkom is in die (Gauteng/Limpopo) provinsie geleë.

Gauteng (1)

2.2.4 Goudmynmaatskappye neem (ongeskoolde en geskoolde/slegs ongeskoolde) arbeid in diens.

ongeskoolde/geskoolde (1)

2.2.5 Die lae termiese gradiënt van Suid-Afrika se rotslae (verminder/verhoog) mynboukoste.

Verminder (1)

2.2.6 Anglo Gold en Khumba Gold gekombineer, het in 2021 (656/489) ton goud geproduseer.

656(1)

2.2.7 (Anglo Gold/Harmony Gold) mynmaatskappy produseer die meeste goud in Suid-Afrika.

Anglo Gold (1)

(7 x 1) (7)

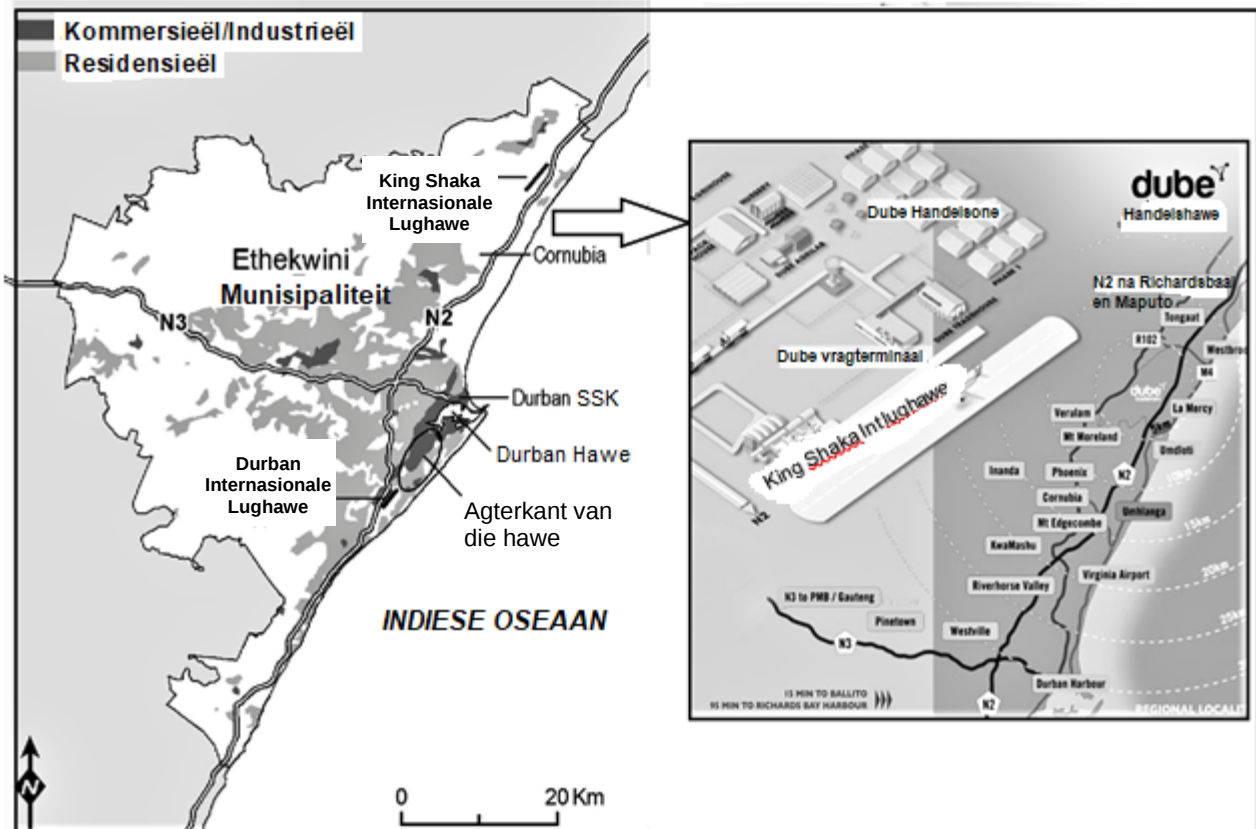
- 2.3 Verwys na die infografieka hieronder wat inligting verskaf oor die Dube Handelshawe NOS.

DUBE HANDELSHAWE NOS

Strategies geleë aan die ooskus van Suid-Afrika, gekoppel aan twee van Afrika se groot seehawens, groot nasionale paaie en die tuiste van King Shaka Internasionale Lughawe, is die Dube Handelshawe NOS strategies geïntegreer by die kruising van plaaslike en globale intermodale vervoerroeles.

Die Dube Handelshawe NOS is 'n 50-jaar meesterbeplande lugvrag- en passasierspulpunt, wat uit vyf besigheidsones bestaan:

1. Dube Handelsone : Vir elektronika, farmaseutiese en lugvaartvervaardiging, samestelling en verspreiding.
2. Dube Vragterminaal: 'n Moderne vraghanteringsfasiliteit met digitale opsporing en veilige vragvloei deur statutêre liggame op die terrein.
3. Dube Agrisone: 'n Gevorderde landbougebied wat wêreldklasgeriewe bied.
4. Dube Stad: 'n Premium besigheids- en gasvryheidsgebied van 12 hektaar, net 3 minute van die passasiersterminaal af.
5. Dube iConnect (Konnekteer): 'n Voorpunt-telekommunikasieplatform en vooraanstaande wolkiensverskaffer.



[Bronne: file:///C:/Users/GEO/Downloads/208227-Article%20Text-517726-1-10-20210607%20(1).pdf
<http://www.tikzn.co.za/images/exportweek/presentations/EPW2018/Day%203%20-%20Dube%20TradePort%20Presentation.pdf>
https://www.dubetradeport.co.za/Pages/Special_Economic_Zone]

2.3.1 Waarvoor staan die afkorting NOS?

Nywerheidsontwikkelingsone (1)

(1 x 1) (1)

2.3.2 Identifiseer die provinsie waarin die Dube Handelshawe NOS geleë is.

KwaZulu-Natal (1)

(1 x 1) (1)

2.3.3 Noem die hoof fisiese faktor wat die ligging van die Dube Handelshawe NOS beïnvloed het.

Naby die Durbanse hawe (1)

Naby die King Shaka Internasionale Lughawe (1)

Goed ontwikkelde infrastruktuur (1)

[Enige EEN]

(1 x 1) (1)

2.3.4 Hoe skep die Dube Handelshawe NOS die geleentheid vir industriële desentralisasie?

Bied aantreklike diensafslag/regeringsaansporings

(water/elektrisiteit/vervoer) vir hervestigde nywerhede. (2)

Verskaf belastingkortings/toegewings vir nywerhede wat gedesentraliseer is. (2)

Verskaf goed ontwikkelde infrastruktuur wat die produksiekoste sal verlaag. (2)

Voorsien goedkoper en oop stukke grond vir toekomstige ontwikkeling/groei van die bedryf. (2)

Bied toegang tot geskoolde en ongeskoolde werksmag. (2)

Bied toegang tot hawens en vervoerskakels vir uitvoer van produkte. (2)

[Enige EEN]

(1 x 2) (2)

2.3.5 Bespreek hoe die infrastruktuurontwikkeling van die Dube Handelshawe NOS kan bydra tot 'n positiewe handelsbalans vir die land.

Die NOS het gehelp met die ontwikkeling van paaie vir die uitvoer en invoer van meer goedere. (2)

Uitvoer van goedere via die hawe sal handelsbalans verhoog. (2)

Die uitvoer van goedere via die lughawe sal die handelsbalans verhoog. (2)

As meer goedere in hierdie NOS vervaardig kan word, kan meer goedere uitgevoer word en sal die handelsbalans verhoog. (2)

[Enige TWEE]

(2 x 2) (4)

- 2.3.6 Evalueer die sosio-ekonomiese impak van die Dube Handelshawe NOS op die plaaslike gemeenskap.

Die Dube Handelshawe sal werksgeleenthede bied wat armoede sal verminder. (2)

Die opleiding van mense, sal die mense in die omgewing help om geskoolde werkers te word, daarom sal hulle 'n beter inkomste ontvang. (2)

Verlaging van misdaadsyfers omdat mense werk sal hê. (2)

Armoedeverligting/beter lewenstandaard omdat Dube Handelshawe geld in die area sal inbring. (2)

Verbeterde infrastruktuur as gevolg van die opgradering van die paaie en geboue wat die gemeenskap kan gebruik. (2)

Verbeterde dienslewering sal die plaaslike gemeenskap help om toegang tot lopende water en elektrisiteit te kry. (2)

Meer/beter behuising sal vir die gemeenskap voorsien word. (2)

Dra by tot die plaaslike ekonomie omdat meer mense werk sal hê en meer by die plaaslike winkels sal kan koop/toename in koopkrag. (2)

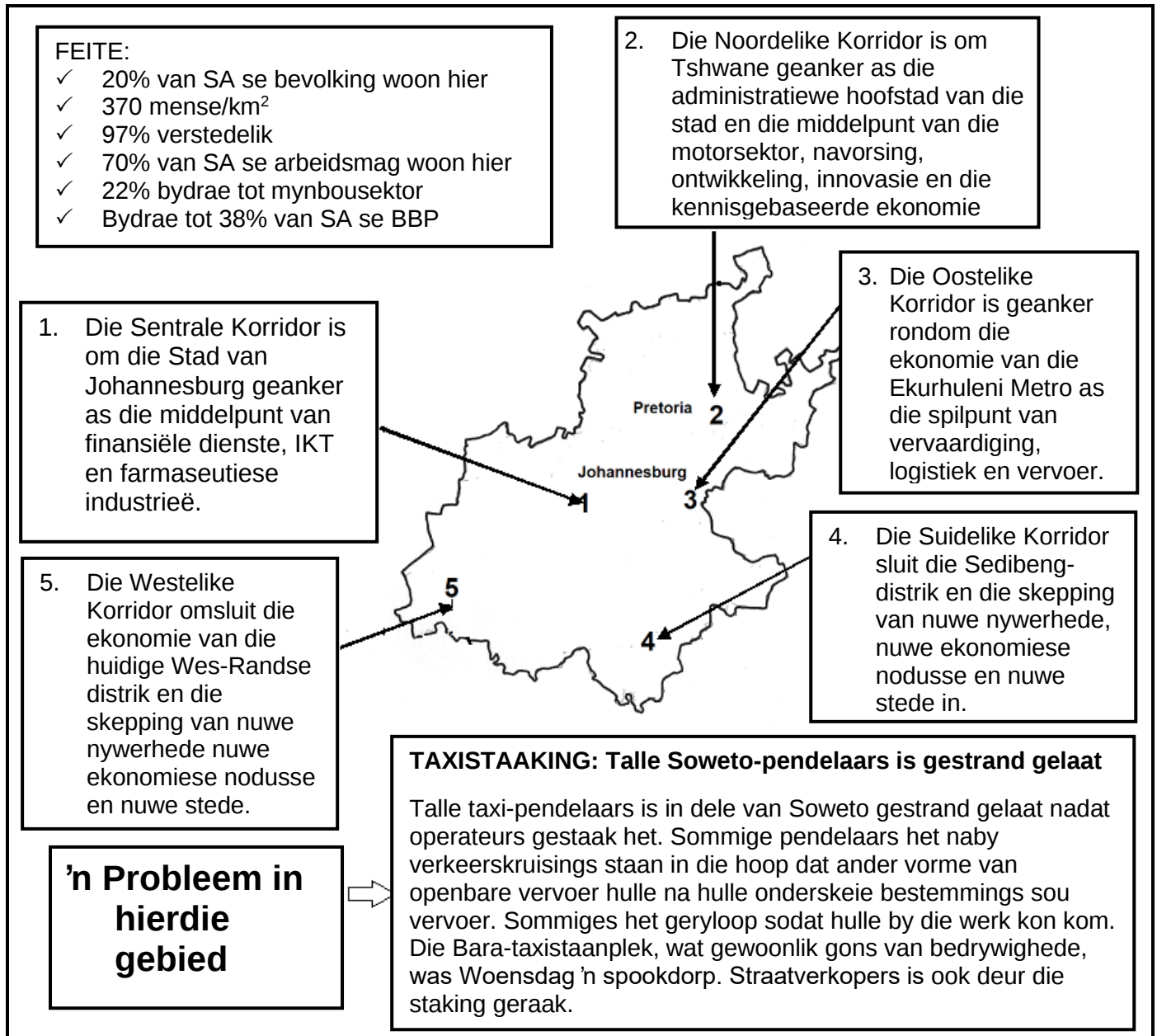
Nyweraars is betrokke by maatskaplike verantwoordelikhedsinisiatiewe om meer skole en opleidingsfasiliteite te bou. (2)

Die vermenigvuldigingseffek/ontwikkeling van geassosieerde of gekoppelde bedrywe sal meer werksgeleenthede verskaf. (2)

[Enige DRIE]

(3 x 2) (6)
(15)

2.4 Verwys na die inligting in die infografika oor 'n kernnywerheidstreek in Suid-Afrika.



[Bron: https://link.springer.com/chapter/10.1007/978-1-4939-9822-2_10. <https://www.news24.com/Tags/Topics/taxi%20>]

- 2.4.1 Identifiseer die kernnywerheidsgebied wat in die bron uitgebeeld word.

Gauteng/PWV/Pretoria-Witwatersrand-Vereeniging (1) (1 x 1) (1)

- 2.4.2 Noem TWEE hoof nywerheidsaktiwiteite uit die infografika wat in hierdie kernnywerheidstreek geleë is.

Farmaseutiese nywerhede (1)

Motorsektor (Motorvoertuigonderdele en -bykomstighede) (1) (2 x 1) (2)

- 2.4.3 Vanuit 'n ekonomiese oogpunt, verduidelik waarom 20% van die bevolking in Suid-Afrika in hierdie kernnywerheidstreek woon.

Dit is 'n hoogs verstedelike gebied, wat beteken dat daar baie werks/besigheids geleenthede is. (2)

Dit is die ekonomiese spilpunt van die land met twee hoofstede in die provinsie, naamlik Johannesburg en Pretoria. (2)

Dit dra grootliks by tot die finansiële, vervaardigings-, vervoer-, tegnologiese- en telekommunikasiesektore. (2)

Hierdie nywerheidsgebied huisves 'n groot aantal oorsese maatskappye wat 'n kommersiële basis in Gauteng benodig. (2)

Dit is die tuiste van die Johannesburgse Aandelebeurs, die grootste aandelebeurs in Afrika. (2)

Van die grootste maatskappye in Afrika en in die buiteland is in Gauteng gesetel, of het kantore en takke hier, bv., Vodacom. (2)

[Enige EEN] (1 x 2) (2)

- 2.4.4 Voorspel vanaf die infografika 'n uitdaging wat pendelaars in die kernnywerheidstreek sal ervaar weens die bevolkingsdigtheid en taxistaking.

Gebrek aan openbare vervoer (2) (1 x 2) (2)

- 2.4.5 Hierdie nywerheidstreek dra tot 38% van die land se BBP by. Ontleed in 'n paragraaf van ongeveer AGT reëls die ekonomiese impak wat 'n taxistaking in hierdie kernnywerheidstreek op die BBP van die land sal hê.

Dit sal 'n beduidende impak hê op mense wat werk toe en teruggaan – as hulle nie by die werk kan kom nie, verloor hulle inkomste. (2)

Die taxibedryf gaan geld verloor en hulle maak 'n groot bydrae tot die BBP van die land. (2)

As mense nie hul werkplekke kan bereik nie, sal minder handel plaasvind, daarom sal die BBP daal. (2)

As mense nie kan gaan werk nie, sal fabriek tot stilstand kom dus geen produktiwiteit nie. Dit sal beteken dat daar geen inkomste is nie en die BBP sal daal. (2)

Die bydrae van Gauteng tot die BBP sal afneem omdat mense nie vervoer sal hê om by die werk te kom nie. (2)

As die werkers nie werk toe gaan nie, sal hulle nie betaal word nie en hulle sal minder geld hê om aan goedere en dienste te spandeer. (2)

Die vermenigvuldigingseffek sal geraak word omdat indien mense nie gaan werk nie, sal hulle nie geld hê om in die winkels te spandeer nie, wat beteken dat minder winkelwerkers nodig is. (2)

Ander bedrywe wat staatmaak op werkers wat taxi's gebruik, sal 'n afname in produksie hê wat 'n afname in inkomste vir die dag beteken. (2)

[Enige VIER]

(4 x 2) (8)
(15)

- 2.5 Verwys na die onderhoud tussen Refiwe Moloto en Zanele Khomo hieronder, oor voedselsekerheid in KwaZulu-Natal.

Cape Talk Show, gasheer Refiwe Moloto gesels met Zanele Khomo van die Durbanse Kamer van Koophandel en Nywerheid oor die plundering in KZN.

Die Durbanse Kamer van Koophandel en Nywerheid het gewaarsku dat die burgerlike onrus en openbare geweld in KwaZulu-Natal heel waarskynlik tot werkverliese en voedseltekorte in die land sal lei.

“KZN dra spesifiek tot 16% van Suid-Afrika se BBP by, soveel skade is nadelig vir ons ekonomie,” sê Zanele Khomo, die Hoofgroeibeampte van die Durbanse Kamer van Koophandel en Nywerheid.

Khomo sê die plundering en vernietiging sal lei tot voedselonsekerheid en verlies aan lewensinkomste aangesien baie fabriek en voedselprodusente gesluit het.

Volgens die Durbanse Kamer van Koophandel en Nywerheid het die koste van die skade in die provinsie Maandag alreeds R100 miljoen oorskry en dit sou na verwagting in die dae en weke wat kom aanhou styg.

Khomo sê amptenare van die Durbanse Kamer van Koophandel en Nywerheid het Maandag met Sihle Zikalala, premier van KwaZulu-Natal, vergader om 'n uitslag van die situasie te gee.

[Aangepas vanuit bron: <https://www.capetalk.co.za/articles/421778/kzn-looting-will-affect-food-security-job-security-and-livelihoods-durban-chamber-of-commerce>, Capetalk 567 AM]

2.5.1 Definieer die term *voedselonsekerheid*.

'n Toestand waarin mense nie genoeg voedsame kos het nie en dalk nie weet waar hul volgende maaltyd vandaan sal kom nie. (2)

[KONSEP]

(1 x 2)

(2)

2.5.2 Haal EEN direkte gevolg van die burgerlike onrus en openbare geweld in KwaZulu-Natal, op voedselsekerheid, uit die uittreksel aan.

Voedseltekorte (1)

(1 x 1)

(1)

2.5.3 Beskryf hoe die onrus tot voedselonsekerheid kon gelei het.

Die oproer en plundery, veral in KZN, het produksie vanaf plase beïnvloed aangesien daar geen werkers was nie. (2)

Die oproer en plundering het kritieke aktiwiteite soos ooste belemmer. (2)

Sommige produkte kon nie geoes word nie as gevolg van onlusverwante vandalisme. (2)

Boere het versuim om produkte na die Durbanse hawens te vervoer vir uitvoer. (2)

Aflewering aan die mark was nie moontlik nie. (2)

Baie werkers in die landbousektor in KZN kon nie tydens die oproer vir werk aanmeld nie. (2)

Verspreidingsentrums was nie toeganklik vir die boeregemeenskap om hul produkte te lewer nie. (2)

Verspreidingsentrums kon nie voedsel aan hul kliënte lewer om te verkoop nie. (2)

Oproer en plundery het inkomsteverliese van hoogs bederfbare produkte tot gevolg gehad. (2)

[Enige EEN]

(1 x 2)

(2)

2.5.4 Bespreek die verband tussen werkloosheid en voedselonsekerheid.

Werklose mense is minder in staat om genoeg gesonde kos te koop om hulself te voed. (2)

Wanneer werkloosheid toeneem, word voedselonsekerheid 'n ernstiger probleem. (2)

Honger en swak voeding kan fisiese en geestelike swakhede tot gevolg hê wat sal lei tot afwesigheid van die werk. (2)

Voedselonsekerheid kan werkloosheid en armoede veroorsaak as gevolg van die swak gesondheid van werkers. (2)

Hoe hoër die werkloosheid, hoe hoër is die koers van voedselonsekerheid. (2)

[Enige TWEE]

(2 x 2)

(4)

- 2.5.5 Watter strategieë kan die regering implementeer om voedselonsekerheid te voorkom in die gebiede wat geraak word deur die burgerlike onrus en openbare geweld in KwaZulu-Natal?

Beskerm voedselvoorsieningskettings en beskou dit as noodsaaklike dienste. (2)

Prioritiseer die verskaffing van voedsel aan die geaffekteerde gebiede. (2)

Plaas 'n uitvoerverbod op voedselprodukte en voorsien eers die geaffekteerde gebiede. (2)

Skep sekuriteit by die voedselmarkte in hierdie gebiede. (2)

Verbeter voedselbeskikbaarheid as 'n prioriteit in die geaffekteerde gebiede. (2)

Voedselnoodbestuurstelsels moet in plek gestel word. (2)

Die beweging van goedere, insluitend voedsel en landbouprodukte op die paaie na hierdie gebiede, moet geprioritiseer word. (2)

Subsidieer voedselpryse sodat mense kan dit bekostig om kos te koop. (2)

[Enige DRIE]

(3 x 2) (6)

(15)

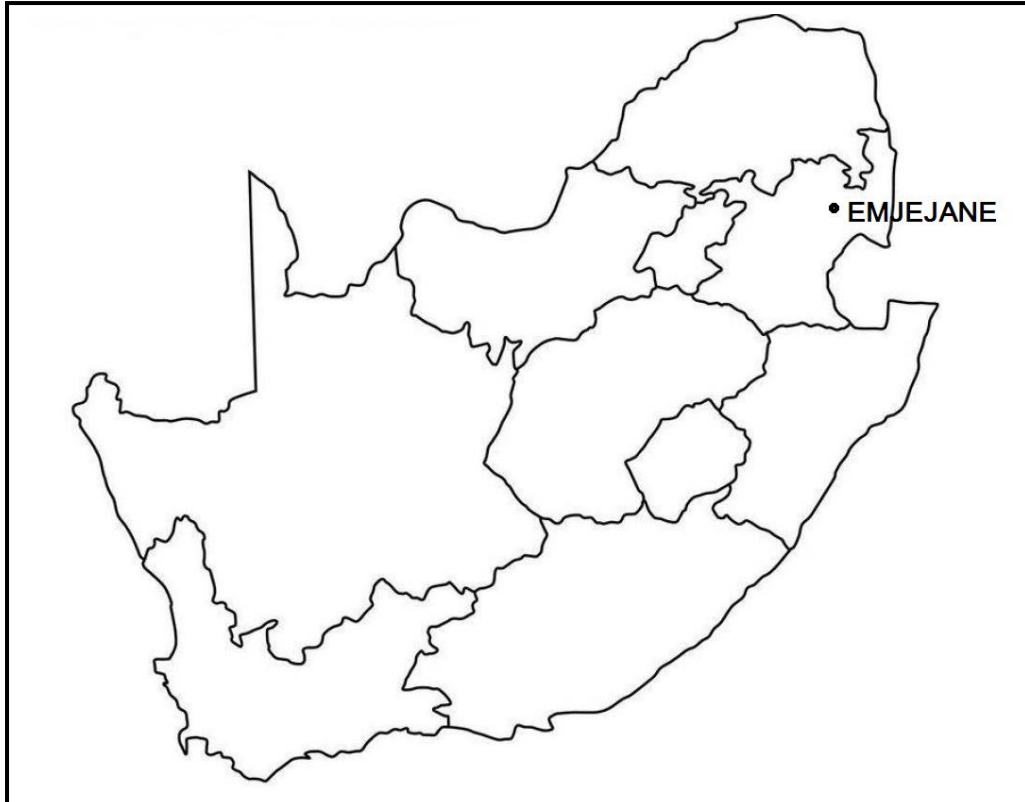
[60]

TOTAAL AFDELING A: 120

AFDELING B

VRAAG 3: GEOGRAFIESE VAARDIGHEDE EN TEGNIEKE

AGTERGRONDINLIGTING OOR EMJEJANE



Koördinate: 25°26' S 31°41' O

Emjejane, voorheen bekend as Hectorspruit, is 'n klein plaasdorpie geleë tussen Kaapmuiden en Komatipoort op 'n suidelike sytak van die Krokodilrivier in Mpumalanga, Suid-Afrika. Die plase in die streek produseer suikerriet, subtropiese vrugte en groente. Die ligging van Emjejane skep uitstekende geleenthede vir voornemende beleggers en besighede om hulself te vestig in die gebied langs die N4-vervoerroete wat die Maputo Ruimtelike Ontwikkelingskorridor bedien.

[Bron: <https://mpumalanga.online/emjejane/>]

Die volgende Engelse terme en hul Afrikaanse vertalings word op die topografiese kaart gewys.

ENGELS	AFRIKAANS
Diggings	Uitgrawings
Firebreak	Voorbrand

3.1 KAARTVAARDIGHEDE EN BEREKENINGE

3.1.1 **B (1)/plattelandse dorp**

3.1.2 **C (1)/Mpumalanga**

3.1.3 **D (1)/Al die bogbenoemde** (3 x 1) (3)

Verwys na kolhoogte 274 (blok **A1**) en kolhoogte 271 (blok **B3**) op die topografiese kaart.

3.1.4 In watter jaar is die kaart saamgestel?

2014 (1) (1 x 1) (1)

3.1.5 Gebruik die antwoord vir VRAAG 3.1.4 om die huidige verskil in jare te bereken.

2022 – 2014 = 8 (1) jare (1 x 1) (1)

3.1.6 Die jaarlikse verandering is 5' weswaarts. Bereken die gemiddelde jaarlikse verandering in 2022.

8 x 5' = 40' (1) (1 x 1) (1)

3.1.7 Gebruik die antwoorde op VRAAG 3.1.6 om huidige magnetiese deklinasie te bereken.

18° 28' + 40' = 18° 68' = 19° 08' W of Ware Noord (1) (1 x 1) (1)

3.1.8 Bereken die ware peiling van punthoogte 271 in blok **B3** vanaf punthoogte 274 in blok **A1**.

106° (2) – omvang (105° – 107°) (1 x 2) (2)

3.1.9 Bepaal die antwoorde op VRAAG 3.1.7 en 3.1.8 om die magnetiese peiling te bereken vanaf punthoogte 274 in blok **A1**, tot punthoogte 271 in blok **B3**.

106° + 19° 08' = 125° 08' (1) Speling (124° 08' – 126° 08') (1 x 1) (1)
(10)

3.2 KAARTINTERPRETASIE

Verwys na die boerdery (Hectorspruit Sitruslandgoed) in blok **D1** van die topografiese kaart.

- 3.2.1 Wat is die doel van die reguit ry bome op die Hectorspruit Sitruslandgoed?

Dien as 'n windversperring /Die ry bome beskerm die sitrusbome teen die wind. (1) (1 x 1) (1)

- 3.2.2 Verteenwoordig boerdery in hierdie area grootskaalse of kleinskaalse boerdery?

Grootskaalse boerdery (1) (1 x 1) (1)

- 3.2.3 Verskaf bewyse vanaf die kaart om jou antwoord op VRAAG 3.2.2 te ondersteun.

Verbouing van gewasse op 'n groot stuk grond/landgoed (2)
Produksie is op groot skaal. (2)
Oor die algemeen, monokultuur (Een tipe gewas – Sitrus) (2)
[Enige EEN] (1 x 2) (2)

Verwys na die N4-hoofweg wat van oos na wes loop op die topografiese kaart.

- 3.2.4 Identifiseer die ROI wat langs die N4-hoofweg ontwikkel het.

Maputo Ruimtelike Ontwikkelings Korridor (1) (1 x 1) (1)

- 3.2.5 Gee bewys vanaf die topografiese kaart dat die ROI genoem in VRAAG 3.2.4 infrastruktuurontwikkeling in Emjejane stimuleer.

Paaie in aanbou (1)
Padwerke (1) (1 x 1) (1)

- 3.2.6 Bespreek hoe die ontwikkeling wat in VRAAG 3.2.5 geïdentifiseer is, ekonomiese groei in Emjejane tot gevolg kon hê.

Verskaf werk aan plaaslike inwoners in die bou van paaie - opheffing van gemeenskappe. (2)
Verskaf ander infrastruktuurontwikkeling (gee voorbeelde). (2)
Moedig entrepreneurskap aan – plaaslike inwoners open besighede om die werkers te voorsien wat in diens is om die paaie te bou. (2)
Moedig ander verwante nywerhede aan om rondom die N4 te ontwikkel en skep dus meer werksgeleenthede en genereer meer inkomste. (2)
Verbygaande padverkeer sal besigheidsontwikkeling tot gevolg hê aangesien die pendelaars sal stop en produkte koop (2)
Verbygaande verkeer sal inkomste in die gebied inbring. (2)
Ontwikkeling van paaie moedig vervoer van goedere aan. (2)
[Enige EEN] (1 x 2) (2)

Verwys na Nedersetting 7 en Nedersetting 8 op die ortofotokaart.

- 3.2.7 Watter van die nedersettings, **7** of **8**, word as 'n informele nedersetting beskou?

7 (1) (1 x 1) (1)

- 3.2.8 Verskaf bewyse vanaf die ortofotokaart om jou antwoord op VRAAG 3.2.7 te ondersteun.

Geen sigbare infrastruktuur, bv., paaie nie. (2)

Geen behoorlike behuisingstrukture nie. (2)

Wonings lyk tydelik/maak skofwonings. (2)

Ontwikkeling lyk onbeplan. (2)

Groepering van boustrukture (2)

[Enige EEN] (1 x 2) (2)

- 3.2.9 Waar sou die meeste van die inwoners van die informele nedersetting in diens geneem word?

Op die sitruslandgoed (1)

In padkonstruksie (1)

[Enige EEN] (1 x 1) (1)
(12)

3.3 GEOGRAFIESE INLIGTINGSTELSELS (GIS)

Verwys na die spoorlyne in Blok **A1** en **B1** op die ortofotokaart.

- 3.3.1 Data-integrasie is die kombinasie van verskillende tipes data en dataalae van 'n spesifieke area vir die doel van besluitneming. Noem TWEE dataalae wat 'n ingenieur sal oorweeg voor die beplanning van die roete wat die spoorlyne sal volg.

Helling/reliëf van die grond (1)

Dreineringswater (1)

Tipe grond/onderliggende rotsstruktuur (1)

[Enige TWEE] (2 x 1) (2)

- 3.3.2 Verduidelik hoe data-integrasie stadsingenieurs gehelp het toe hulle die ontwikkeling van die spoorlyne beplan het.

'n Opsomming van geïntegreerde data word gemaak wat dit makliker maak om data te ontleed om die beste manier vir die ligging van die spoorlyn te bepaal. (2)

Voorbeelde: Die helling/reliëf sal die dreineringswater beïnvloed. (2)

Die onderliggende rotsstruktuur en die reliëf van die gebied sal die bou van spoorlyne ondersteun. (2)

[Enige EEN] (1 x 2) (2)

Verwys na die ortofotokaart.

- 3.3.3 Data vir die ortofotokaart is deur die proses van afstandwaarneming ingesamel. Definieer *afstandwaarneming*?

Kry van data oor die aarde se oppervlak van 'n afstand af, sonder om in kontak met die aarde se oppervlak te wees. (2) Verkry data van bo/vertikaal. (2)

[KONSEP]

(1 x 2) (2)

- 3.3.4 Hoe het afstandwaarneming ontwikkelaars gehelp met die ontwikkeling van die Maputo-korridor (N4) langs blokke **D4** en **D5**?

Data kan vir ontoeganklike gebiede ingesamel word om te bepaal waar die ideale ligging sal wees om die korridor te bou. (2)

Groot areas kan as beelde vasgelê en ontleed word om die ideale area vir die bou van die korridor te identifiseer. (2)

Waarneming van die area kon vinnig gedoen word. (2)

Ontwikkelaars het, met verloop van tyd, konsekwente beelde van die area gehad om te bepaal wat die mees koste-effektief sal wees. (2)

[Enige EEN]

(1 x 2) (2)
(8)

TOTAAL AFDELING B: 30

TOTAAL: 150