Province of the
EASTERN CAPE
EDUCATION

# NATIONAL SENIOR CERTIFICATE

## GRADE 12

## SEPTEMBER 2022

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## GEOGRAPHY P2

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**MARKS:** **150**

**TIME:** **3 hours**

This question paper consists of 16 pages.

## INSTRUCTIONS AND INFORMATION

1. The question paper consists of TWO SECTIONS.

   SECTION A:
   QUESTION 1: Rural and Urban Settlements (60)
   QUESTION 2: Economic Geography of South Africa (60)

   SECTION B:
   QUESTION 3: Geographical Skills and Techniques (30)

2. Answer all THREE questions.

3. ALL diagrams are included in the QUESTION PAPER.

4. Leave a line between the subsections of questions answered.

5. Start EACH question at the top of a NEW page.

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

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

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

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

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

11. You may use a non-programmable calculator.

12. You may use a magnifying glass.

13. Write neatly and legibly.

## SPECIFIC INSTRUCTIONS AND INFORMATION FOR SECTION B

14. A 1 : 50 000 topographic map 3025AD PHILIPPOLIS and a 1 : 10 000 orthophoto map 3025 AD 01 PHILIPPOLIS are provided.

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

16. Show ALL calculations. Marks will be allocated for the steps in the calculations.

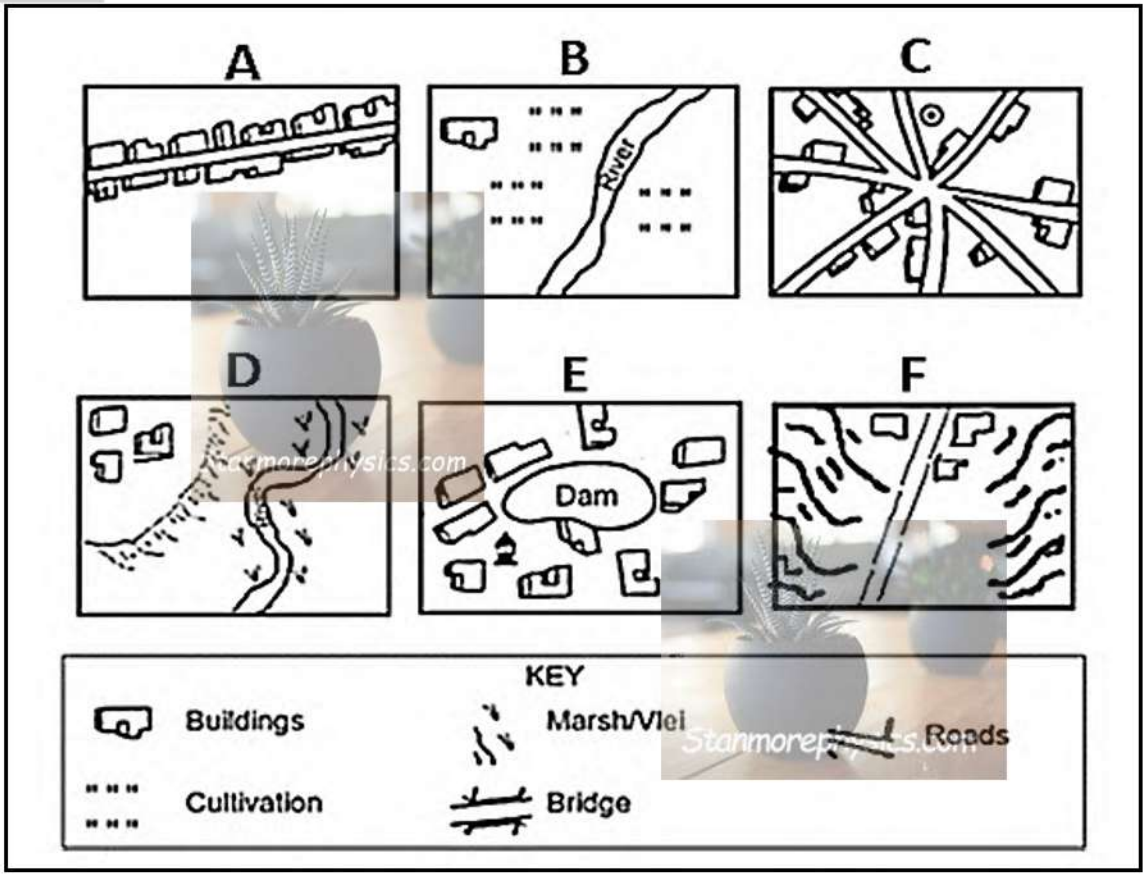
17. You must hand the topographic map and the orthophoto map to the invigilator at the end of this examination session.

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

## QUESTION 1: RURAL AND URBAN SETTLEMENTS

1.1 The sketch below shows various rural settlements. Match the descriptions in QUESTIONS 1.1.1 to 1.1.8 with the letters (A–F). Write only the letter (A–F) next to the question numbers (1.1.1 to 1.1.8) in the ANSWER BOOK, for example 1.1.9 G. Letters may be repeated.




[Adapted from *Success with exams*]

1.1.1 A settlement that is isolated.

1.1.2 A settlement that has its shape influenced by a star shape road.

1.1.3 A settlement that is a wet point.

1.1.4 A settlement that has a linear shape.

1.1.5 A dry point settlement.

1.1.6 A settlement built in the gap/pass.

1.1.7 A settlement pattern which results in less social contact.

1.1.8 A choice of site of this settlement is influenced by soil fertility.

(8 x 1) (8)

1.2 Choose the correct word(s) from those given in brackets. Write only the word(s) next to the question numbers (1.2.1 to 1.2.7) in the ANSWER BOOK, for example 1.2.8 threshold population.

1.2.1 (Urban expansion/Urbanisation) refers to the increase in the percentage of people living in urban areas.

1.2.2 (Central city/Central place) is an urban area providing goods and services to the surrounding rural population.

1.2.3 (Low order/High order) services are required on a daily basis.

1.2.4 Maximum distance a consumer is willing to travel to purchase goods is the (threshold population/range of goods).

1.2.5 Overcrowding is a result of urban (growth/expansion).

1.2.6 The (range of goods/threshold population) refers to the number of people needed for a business to make a profit.

1.2.7 Developed countries have a (high/low) rate of urbanisation. (7 x 1) (7)

1.3 Refer to the extract below on land reform.

**SOUTH AFRICA'S LAND REFORM EFFORTS LACK FOCUS ON STRUGGLING FARMERS**

South Africa's land reform programme has suffered many failures and its beneficiaries have in many cases seen little or no improvements to their livelihoods. Land reform remains a contested 'unresolved historical grievance'.

South Africa has a history of colonisation, racial domination and racially based land dispossession. The land restitution process is part of the broader land reform programme which includes redistribution and tenure reform.

There is a general agreement that land reform has been a failure and needs to be sped up. Research shows that between 70% to 90% of the projects (including land restitution projects) have failed.

Land reform has contributed little to helping beneficiaries earn a livelihood from the land and creating self-sufficient farmers. The reasons for this include inadequate post-settlement support, lack of skills, poor planning and infighting within communities.

[Adapted from https://theconversation.com/south-africas-land-reform-efforts-lack-a-focus-on-struggling-farmers]

1.3.1 Define the term *land reform*. (1 x 2) (2)

1.3.2 According to the extract, why has the land reform programme failed? (1 x 1) (1)

1.3.3 Explain TWO reasons why land reform is necessary in South Africa. (2 x 2) (4)

1.3.4 In a paragraph of approximately EIGHT lines, suggest methods that the government can put in place to provide support to the people resettled on the land after land reform. (4 x 2) (8)

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1.4 Refer to the infographic on a commercial decentralisation in the Buffalo City Metropolitan area.

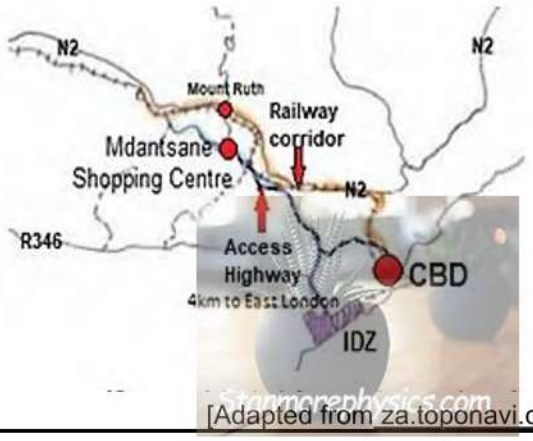
**MDANTSANE CITY TURNS EIGHT AND EXEMPLIFIES THE CHANGING FACE OF TOWNSHIP RETAIL**

"Since retailers began entering the neighbourhood space in the late 1990s, and more so in the recent years, township residents have benefitted enormously," said the Mdantsane City's GM, Dean Dreary, whose centre has become a mainstay in one of South Africa's largest townships, Mdantsane outside East London.

Aside from assisting with job creation, the township-based shopping centre has alleviated residents' need to commute long distances to and from the city centre.

[Source: bizcommunity.com]






[Adapted from za.toponavi.com]

1.4.1 The movement of commercial functions out of the CBD is commercial (centralisation/decentralisation). (1 x 1) (1)

1.4.2 The shopping centre in Mdantsane is an outlying (business district/planned neighbourhood centre). (1 x 1) (1)

1.4.3 State THREE factors that promoted the location of the shopping centre. (3 x 1) (3)

1.4.4 How will the development of Mdantsane City shopping centre have a positive social impact on the area? (2 x 2) (4)

1.4.5 Explain the negative factors in the CBD that resulted in the relocation of businesses to Mdantsane and its surrounding area. (3 x 2) (6)

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1.5 Refer to the extract below on informal settlements.

**STUDENT TEACHERS SHARE IDEAS ABOUT IMPROVING INFORMAL SETTLEMENTS IN SOUTH AFRICA**

In South Africa, 25,6% of the population live in informal dwellings and the numbers increase annually in the urban areas. Informal dwellings are temporary structures built with materials such as hardboard, asbestos and corrugated iron. They tend not to be compliant with building regulations.

These unplanned settlements lack resources, infrastructure and basic services. Waste is discharged into clean water sources and people have to use energy sources like coal, illegally connected electricity, gas and paraffin. These pose a risk of fires and the release of harmful gases into the atmosphere.

The growth of unplanned settlements also creates challenges for healthcare provision, security, education prospects and environmental sustainability. Government policies need to address these issues, but education is key in fostering respect for the environment.

[Source: https://theconversation.com/student-teachers-share-ideas-about-improving-informal-settlements-in-south-africa-166854]

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Choose the correct word(s) from those given in brackets. Write only the word(s) next to the question numbers (1.5.1 to 1.5.2) in the ANSWER BOOK.

1.5.1 Informal settlements are located in (rural/urban) areas. (1 x 1) (1)

1.5.2 Informal settlements result in (counter-urbanisation/urban sprawl). (1 x 1) (1)

1.5.3 State ONE reason why people settle in informal settlements. (1 x 1) (1)

1.5.4 Give TWO social injustices that people living in informal settlements, face. (2 x 1) (2)

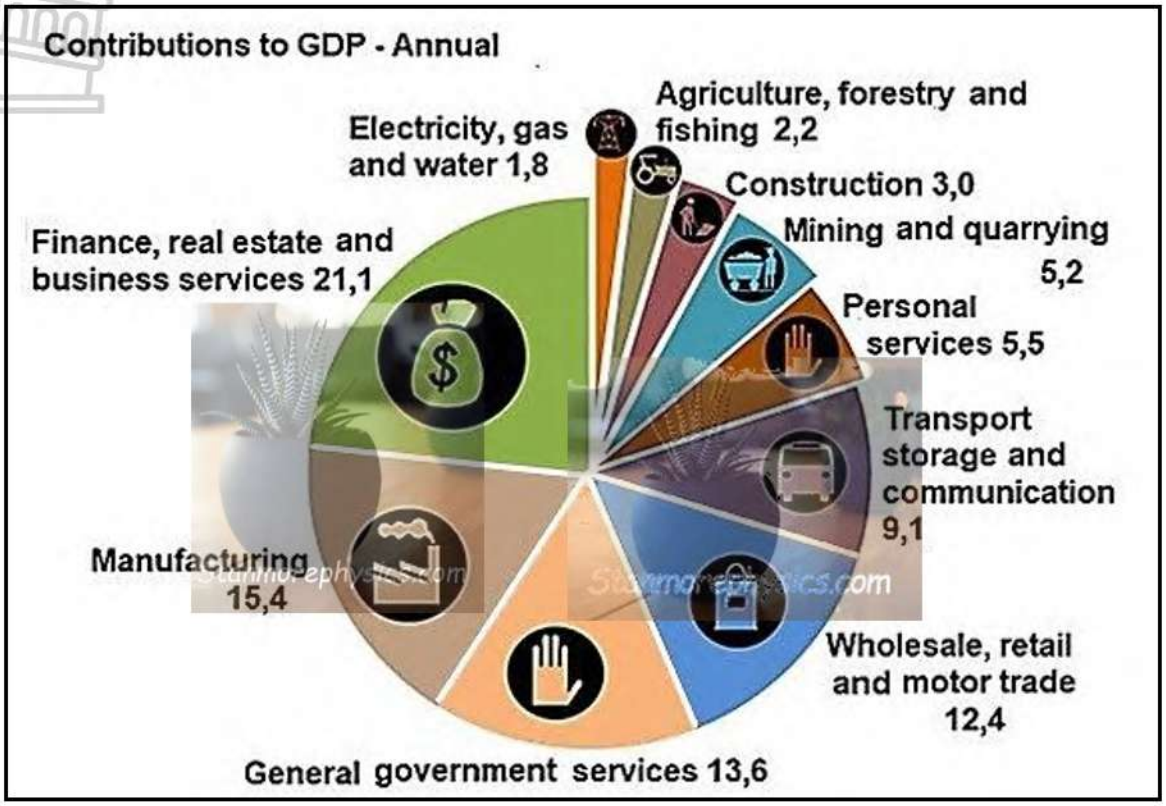
1.5.5 Describe TWO ways in which shack dwellers often show their growing discontent (unhappiness) in South Africa. (2 x 2) (4)

1.5.6 Suggest measures government could implement to address the social injustices faced by people living in informal settlements. (3 x 2) (6)

**[60]**

## QUESTION 2: ECONOMIC GEOGRAPHY OF SOUTH AFRICA

2.1 Various options are provided as possible answers to the following questions. Choose the answer from the pie chart below and write only the letter (A–D) next to the question numbers (2.1.1 to 2.1.8) in the ANSWER BOOK, for example 2.1.9 A.




[Source: http://www.statssa.gov.za]

2.1.1 The total value of goods and services produced in a country in one year.

A Gross National Product
B Gross Domestic Product
C Balance of Trade
D Trade agreement

2.1.2 … form(s) part of the tertiary sector of the economy.

A Electricity, gas and water
B Agriculture, forestry and fishing
C Construction
D Manufacturing

2.1.3 Construction forms part of the … sector.

A primary
B secondary
C tertiary
D quaternary

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2.1.4 Which tertiary activity contributed the biggest percentage to the South African economy?

A General government services
B Manufacturing
C Wholesale, retail and motor industry
D Finance, real estate and business services

2.1.5 … contributed the least to the primary sector.

A Mining and quarrying
B Agriculture, forestry, fishing
C Transport, storage, and communication
D Construction

2.1.6 … dominated the secondary sector.

A General government services
B Manufacturing
C Trade, catering and accommodation
D Personal services

2.1.7 … contributed the least to the South African economy.

A Personal services
B General government services
C Electricity, gas and water
D Transport, storage and communication

2.1.8 What percentage did the tertiary sector contribute to the South African economy?

A 7,4%
B 18,4%
C 54,4%
D 63,5% (8 x 1) (8)

2.2 The photographs below show examples of a FORMAL and an INFORMAL sector. Match the description in QUESTIONS 2.2.1 to 2.2.7 with the photographs. Write only FORMAL or INFORMAL next to the question numbers (2.2.1 to 2.2.7) in the ANSWER BOOK, for example 2.2.8 Formal.




[Source: easterncapeindustrialnews.co.za]




[Source: startupafrica.co.za]

2.2.1 Many people are self-employed in this sector.

2.2.2 The sector which makes the largest contribution to the GDP of a country.

2.2.3 The sector that generally shows a small profit margin.

2.2.4 Businesses are on streets with makeshift shelters.

2.2.5 Greater job security and benefits prevail in this sector.

2.2.6 Businesses are not registered with South African Revenue Service (SARS).

2.2.7 Machinery and up-to-date technology is used in this sector. (7 x 1) (7)

2.3 Refer to the infographic on sugarcane farming and production.

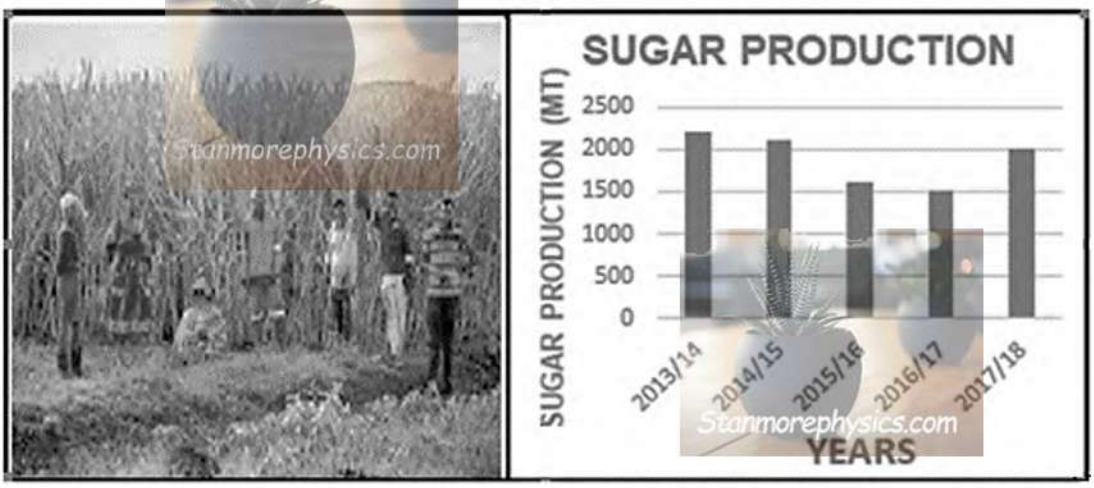
**FACTORS AFFECTING SUGARCANE PRODUCTION BY SMALL-SCALE GROWERS**

Sugarcane is an important crop worldwide due to its many nutritional and economic uses. Small-scale sugarcane growers (SSGs) are a significant sector of sugarcane production in South Africa. However, the number of SSGs has declined from 50 000 in the 2000s to less than 13 000 in 2017.

Results show that late harvesting, late fertiliser application, and chemicals application were primary challenges facing SSGs, likely to result in declining sugarcane yield.

Other problems included, were a shortage and high wages of labour which was followed by the high price of inputs (seed, fertiliser, insecticide, pesticide); low price of cane; non-availability of fertiliser, insect, pest and diseases; lack of clean seed …

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




[Adapted from USDA, SASA]

2.3.1 Identify a physical factor in the extract that had a negative impact on the sugarcane production in 2013–2017. (1 x 1) (1)

2.3.2 By how many metric tons (MT) did the sugar cane production decrease from 2013/14 to 2016/17? (1 x 2) (2)

2.3.3 Suggest TWO ways in which the government can assist small-scale sugarcane farmers to increase production. (2 x 2) (4)

2.3.4 In a paragraph of approximately EIGHT lines, explain the economic challenges that currently impact negatively on the sugarcane industry. (4 x 2) (8)

2.4 Refer to the extract on the PWV/Gauteng industrial Region.

**SOUTH AFRICA'S ELECTRICITY WOES CONTINUE TO PLACE MANUFACTURING IN THE GAUTENG (PWV) CORE INDUSTRIAL REGION AT RISK**

The lack of reliable electricity supply is not only leading to lost production and increased costs across South Africa's shrinking manufacturing sector, but has left enterprises unable to plan, invest and grow.

The region was at a 'tipping point' and at risk of becoming a 'rust belt', with significant plant closures, rising unemployment and crime, as well as low rates of local and foreign investment.

However, the Gauteng (PWV) core industrial region has cemented its status towards being the capital of SA's motor vehicle manufacturing industry by launching its first automotive special economic zone (SEZ).

The automotive vehicle manufacturer Ford Motor Company will see at least R3.6bn in projected investment being pumped into the project. The first phase of the project was set to create almost 7,000 direct jobs.

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When the project is completed in 2021, hundreds more indirect jobs are expected to be created as the SEZ will be buzzing with automotive component suppliers and related service providers.

[Adapted from sowetanlive.co.za/news/south-africa/2019-11-11-gauteng-revs-engine-to-take-over-car-industry/]

2.4.1 What energy source has led to the Gauteng/PWV core industrial region declining? (1 x 1) (1)

2.4.2 State TWO economic problems that the manufacturing industry is facing, according to the extract. (2 x 1) (2)

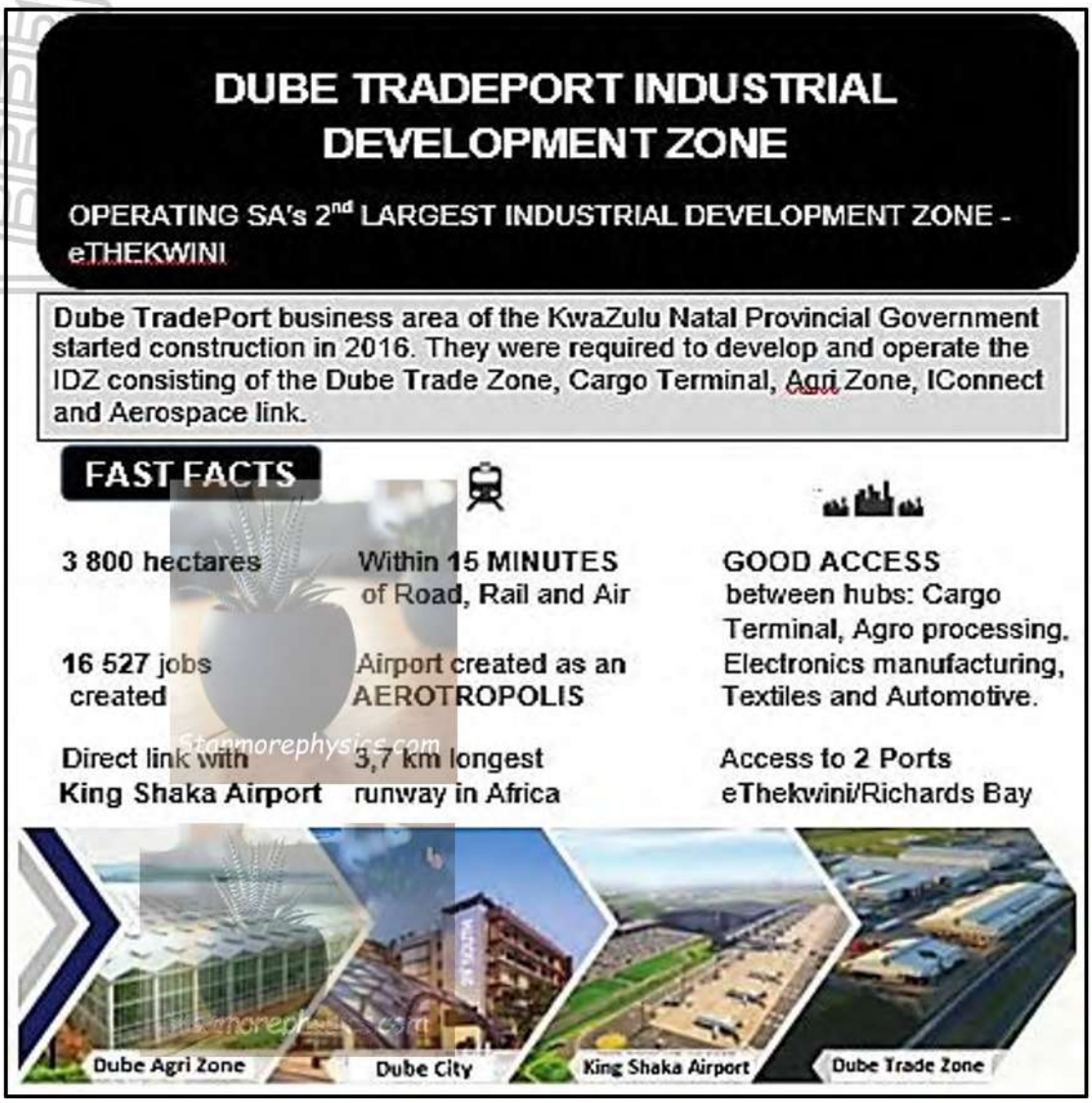
2.4.3 How will the automotive industry over time stimulate the growth of other industries in the region? (1 x 2) (2)

2.4.4 How will energy provision become a major challenge for the automotive special economic zone (SEZ), which is located in the PWV/Gauteng core industrial region in the next three years. (2 x 2) (4)

2.4.5 Explain why the PWV/Gauteng Industrial Region is a preferred destination for Ford Motor Company international investors. (3 x 2) (6)

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2.5 Refer to the infographic on the Dube TradePort Industrial Development Zone.




[Adapted by Examiner]

2.5.1 Name the province in which Dube TradePort IDZ is located. (1 x 1) (1)

2.5.2 State ONE type of industry from the infographic that is found in the Tradeport Industrial Development Zone. (1 x 1) (1)

2.5.3 Name the international airport that is close to the Dube TradePort Industrial Development Zone. (1 x 1) (1)

2.5.4 Explain ONE economic advantage of the airport (answer to QUESTION 2.5.3). (1 x 2) (2)

2.5.5 What positive economic benefits will the Dube TradePort Industrial Development Zone have for the region? (2 x 2) (4)

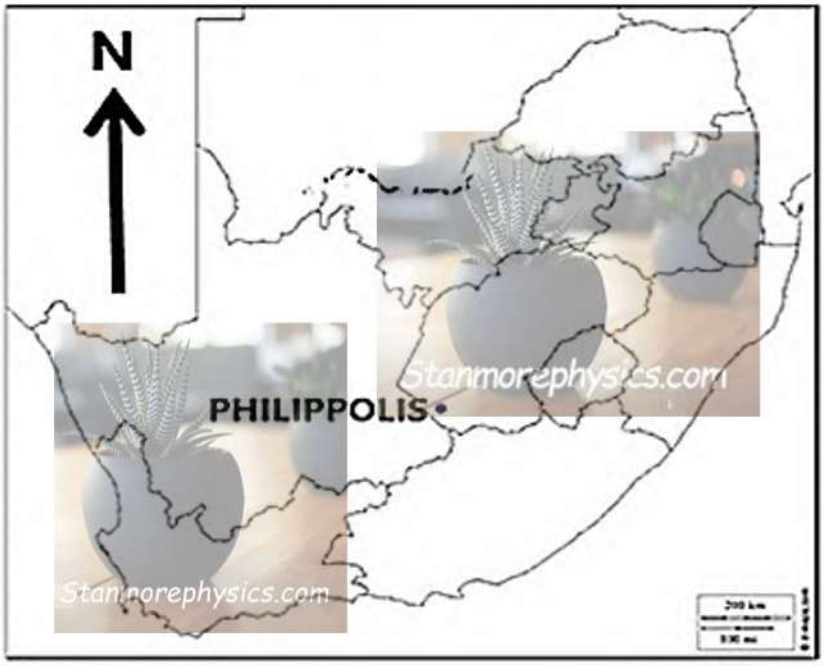
2.5.6 Explain how accessibility due to the infrastructure linked to the Dube TradePort Industrial Development Zone, will support rapid economic growth in this IDZ. (3 x 2) (6)

**[60]**

**SECTION B**

**QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES**

**BACKGROUND INFORMATION ON PHILIPPOLIS**




Coordinates: 30° 15' S : 25°16' E

Philippolis is a small town situated in the Motheo and Xhariep region of the Free State Province in South Africa. In 1823 it served as a missionary outpost for the Bushman. This makes Philippolis the oldest settlement in the Free State Province.

In the 1960s, Africa's version of Asia's Grand Trunk Highway – the Great North Road – threatened to swallow up the tiny little Southern Free State village on its march from Cape Town to Cairo. Instead, the N1 bypassed Philippolis and there was great sadness in the town. No tourist boom. No franchise strip mall. No motels and no immediate job bonanza for locals. The impressive (for those days) 3 petrol stations that the town boasted dwindled to 1, and many buildings and farms were abandoned as residents left for more lucrative locations.

Seventy-five of Philippolis buildings have been declared national monuments. However, the town still serves as a central place town for the community.

[Source: https://en.wikipedia.org/wiki/Philippolis, Free State]

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

| **ENGLISH** | **AFRIKAANS** |
|---|---|
| Diggings | Uitgrawings |
| Sewerage works | Rioolwerke |
| Library | Biblioteek |
| Furrow | Voor |

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## 3.1 MAPWORK SKILLS AND CALCULATIONS

Refer to the trigonometrical station 249 at **1** in block **A2** and spot height 1387 in block **B3** found on the orthophoto map. The cross-section below represents the gradient.

3.1.1 The highest human-made feature at trigonometrical station 249 is the …

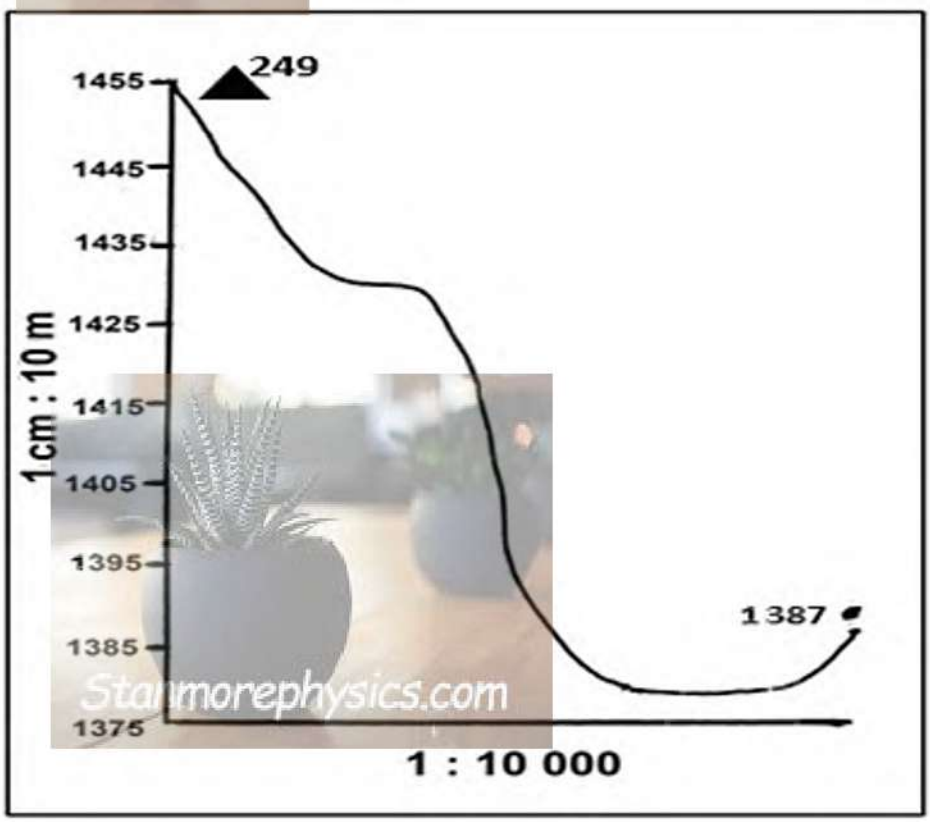
A spot height.
B road.
C reservoir.
D communication tower. (1 x 1) (1)

3.1.2 The highest altitude on the cross section is …

A 249.
B 1 390.
C 1 455
D 1 380. (1 x 1) (1)

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3.1.3 The horizontal scale of 1 : 10 000 on the cross-section is a …




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A ratio.
B fraction.
C line.
D word. (1 x 1) (1)

3.1.4 Calculate the vertical exaggeration of the cross-section. Show ALL calculations. Marks will be awarded for calculations.

**Formula: Vertical Exaggeration (VE) = $\frac{\text{Vertical Scale (VS)}}{\text{Horizontal Equivalent (HE)}}$**

(4 x 1) (4)

3.1.5 Vertical exaggerations on cross-sections make interpretation of the landscape more (easier/difficult). (1 x 1) (1)

3.1.6 Give reasons for your answer to QUESTION 3.1.5. (2 x 1) (2)

3.2 **MAP INTERPRETATION**

Refer to the area **S** in blocks **A2** and **B2** on the topographic map.

3.2.1 (a) Give the shape of the built-up area at **F**. (1 x 1) (1)

(b) Give ONE reason for this general shape. (1 x 1) (1)

3.2.2 State TWO situation factors that could have influenced the location of Philippolis. (2 x 1) (2)

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3.2.3 Give ONE point of evidence on the topographic map that indicates that Philippolis is a central place/town. (1 x 2) (2)

3.2.4 How do the roads linking Philippolis impact the sphere of influence of the town? (1 x 2) (2)

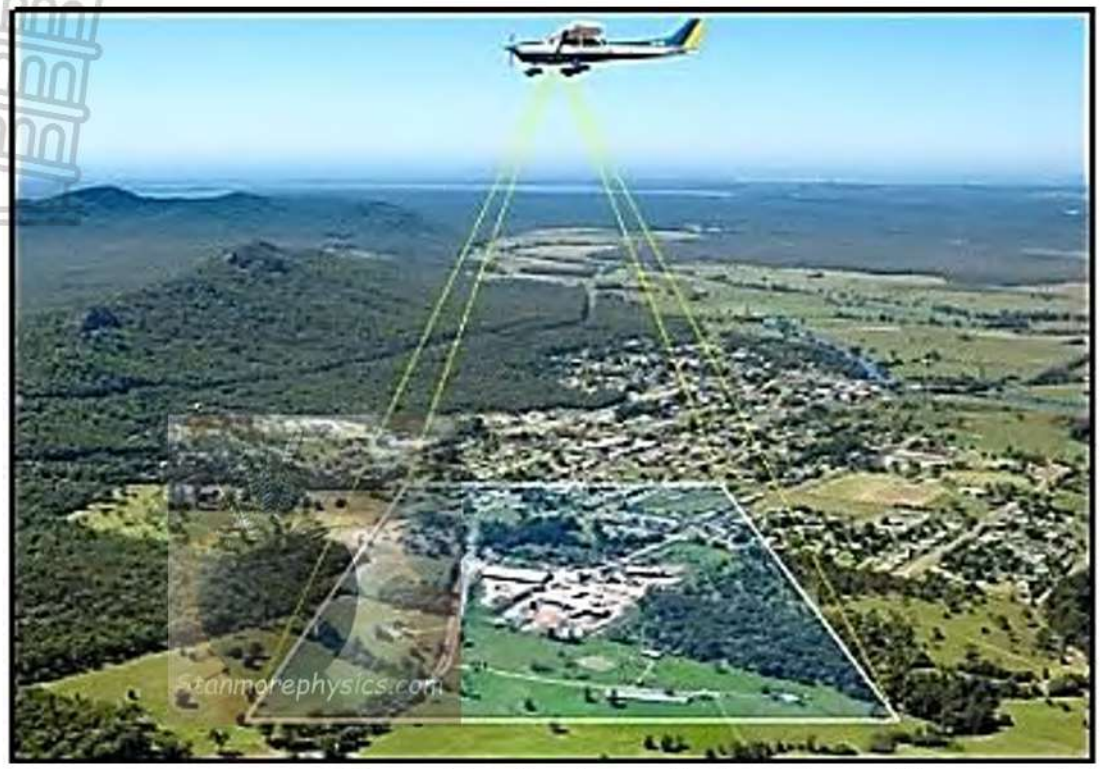
3.2.5 Explain your answer to QUESTION 3.2.4. (1 x 2) (2)

3.2.6 State ONE advantage of the 717 passing through Philippolis, for motorists. (1 x 2) (2)

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## 3.3 GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

Refer to the photograph below.




[Source: https://montgomerylandsurveying.com/drone-surveying]

3.3.1 Which GIS method did the aeroplane above use to gather information? (1 x 1) (1)

3.3.2 Images from the aeroplane were used to make the topographic map. Explain how South African topographic maps are standardised. (1 x 2) (2)

Refer to the topographic map.

3.3.3 Mention ONE way in which primary data can be collected to do an environmental impact study to evaluate the influence of soil erosion in block **D5**. (2 x 1) (2)

3.3.4 Soil erosion in block **D5** can affect the farming area **T.** Mention TWO data layers in block **D5** that GIS specialists can use to stop the spread of soil erosion. (2 x 1) (2)

3.3.5 Identify the line feature that was used to limit the impact of erosion on farm area **T**. (1 x 1) (1)

**[30]**

**TOTAL: 150**

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