



Province of the
EASTERN CAPE
EDUCATION

NATIONAL SENIOR CERTIFICATE

GRADE 12

SEPTEMBER 2022

GEOGRAPHY P2

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.

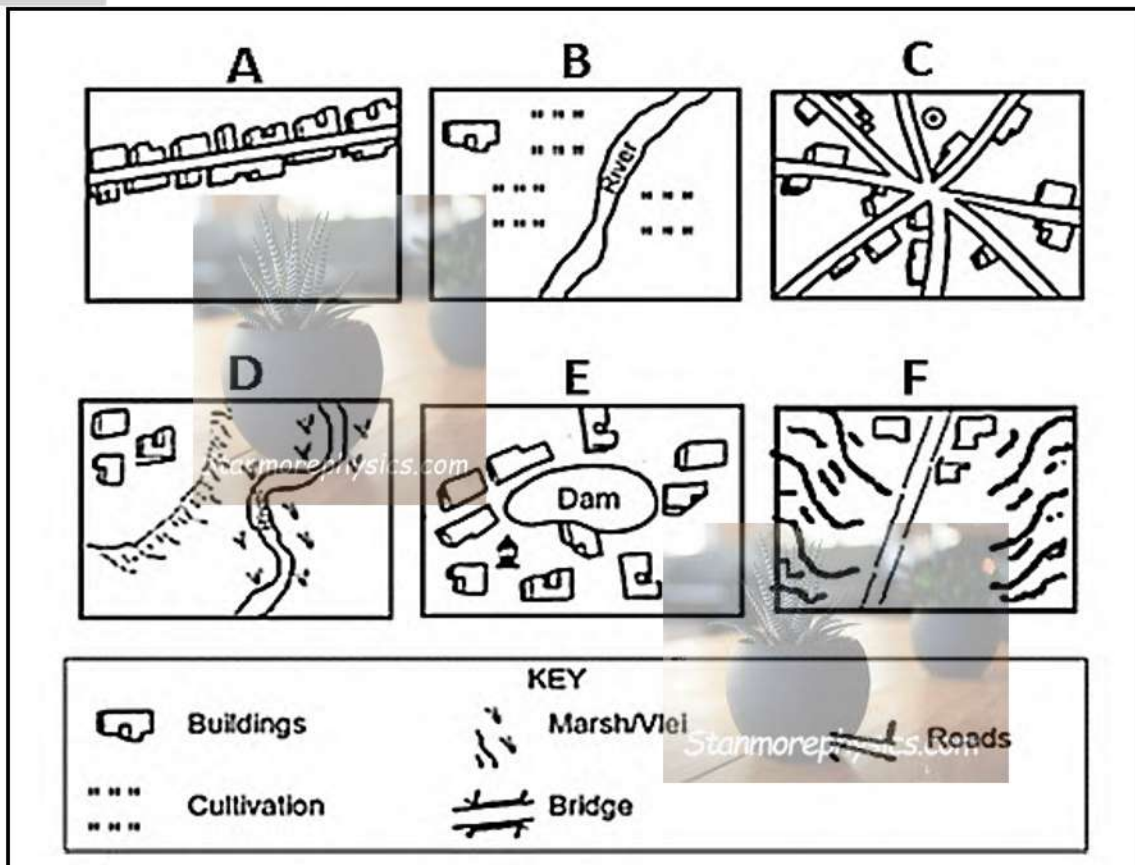
SPECIFIC INSTRUCTIONS AND INFORMATION FOR SECTION B

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.

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)

- 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)

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>]

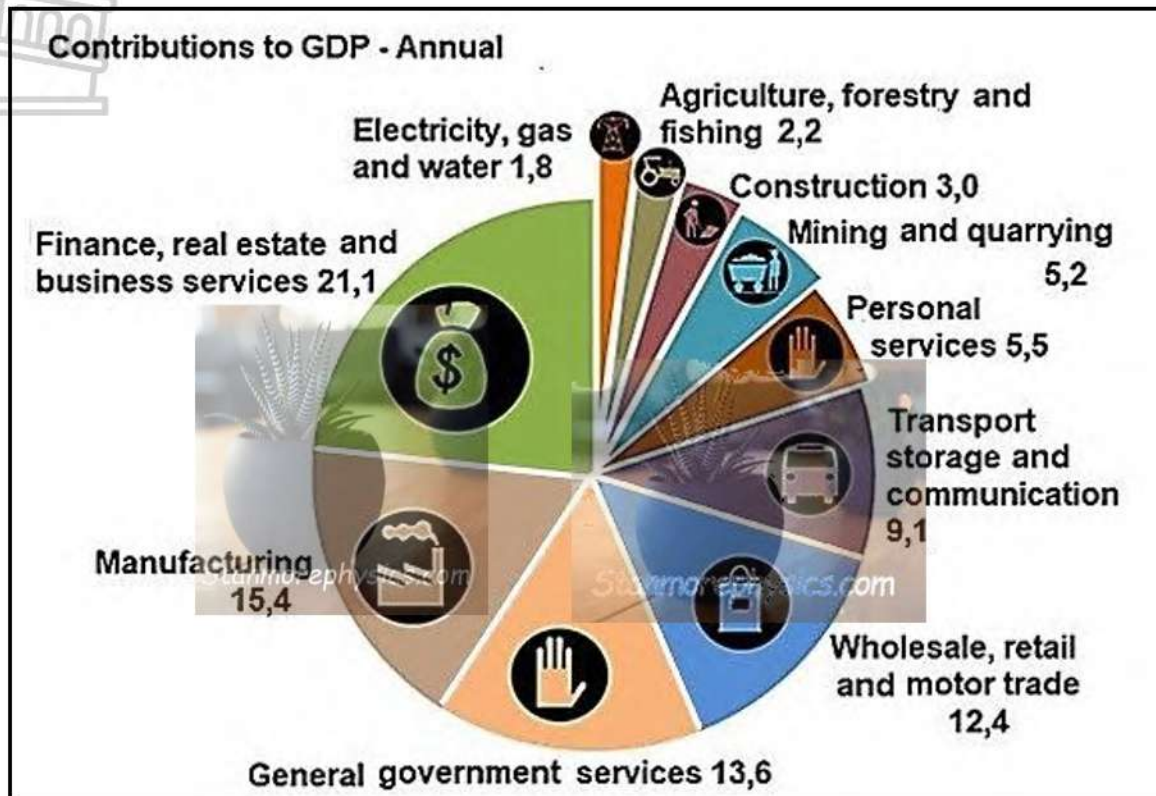
Choose the correct word(s) from those given in brackets. Write only the word(s) next to the question numbers (1.5.1 to 1.5.2) in the ANSWER BOOK.

- 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



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.

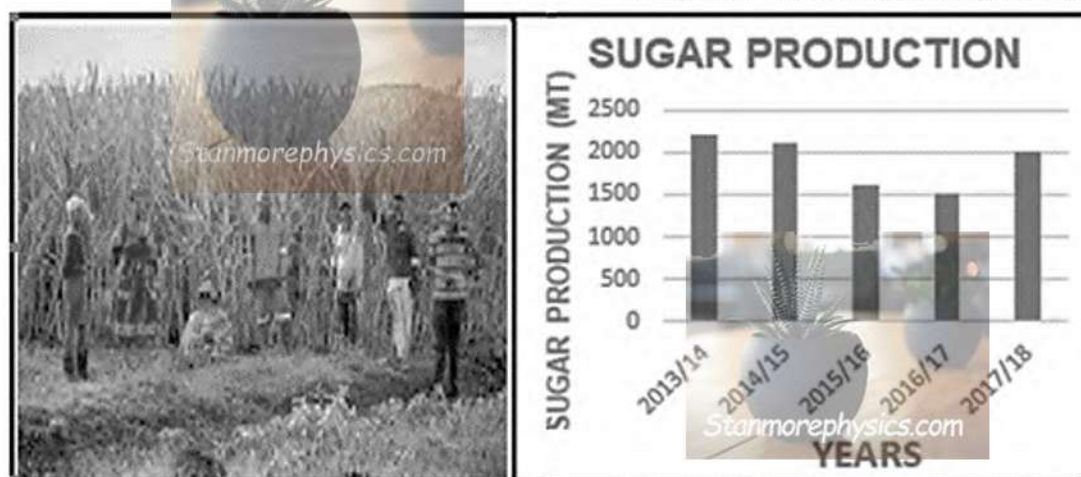
FACTORS AFFECTING SUGARCANE PRODUCTION BY SMALL-SCALE GROWERS

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).

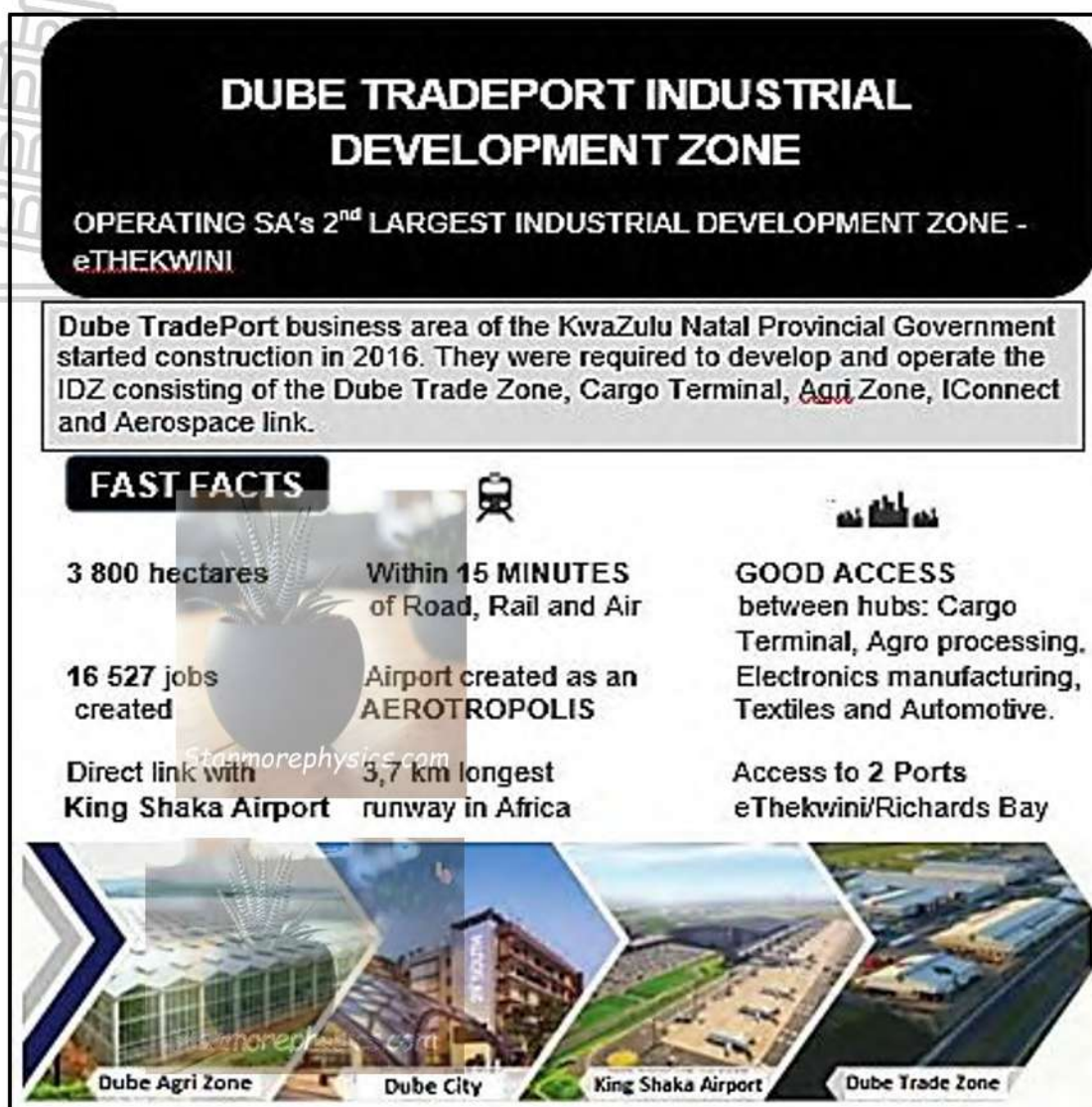
The automotive vehicle manufacturer Ford Motor Company will see at least R3.6bn in projected investment being pumped into the project. The first phase of the project was set to create almost 7,000 direct jobs.

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)

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



[Adapted by Examiner]

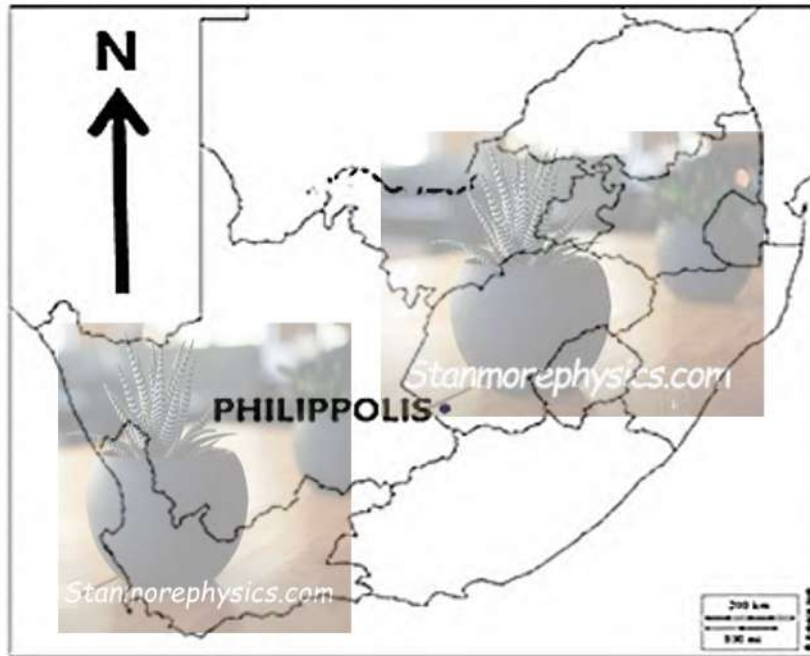
- 2.5.1 Name the province in which Dube TradePort IDZ is located. (1 x 1) (1)
- 2.5.2 State ONE type of industry from the infographic that is found in the Tradeport Industrial Development Zone. (1 x 1) (1)
- 2.5.3 Name the international airport that is close to the Dube TradePort Industrial Development 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: $30^{\circ} 15' S$: $25^{\circ} 16' E$

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](https://en.wikipedia.org/wiki/Philippolis,_Free_State)]

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

ENGLISH

Diggings
Sewerage works
Library
Furrow

AFRIKAANS

Uitgrawings
Rioolwerke
Biblioteek
Voor

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.

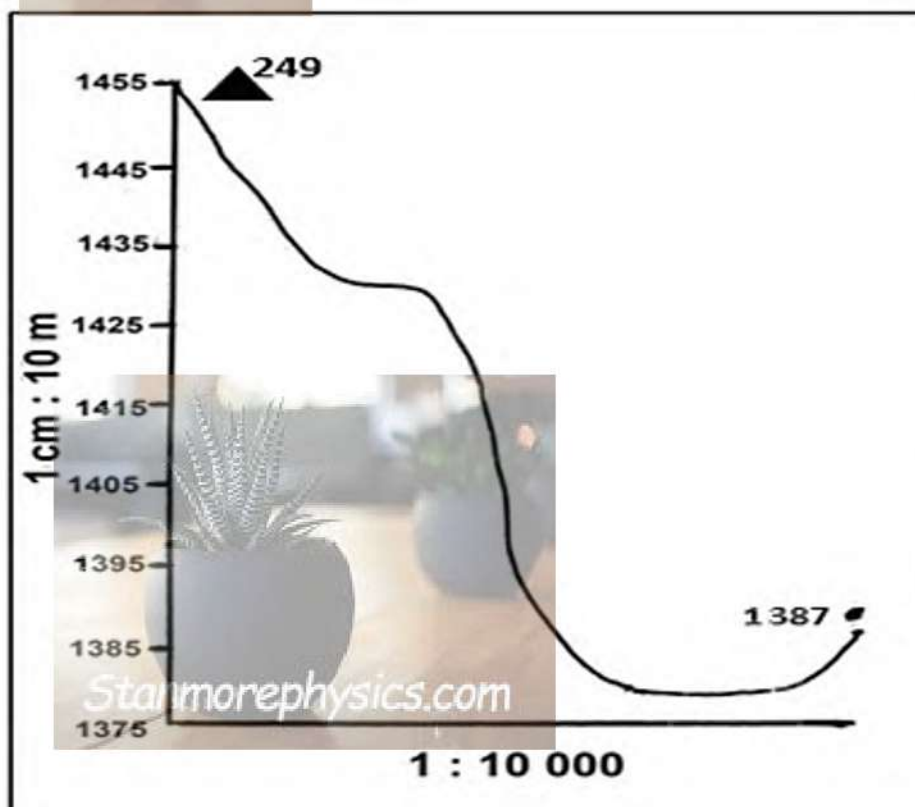
(1 x 1) (1)

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)

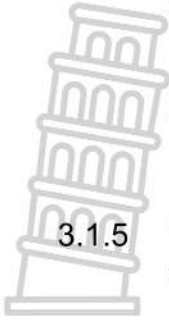
3.1.3 The horizontal scale of 1 : 10 000 on the cross-section is a ...



- 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.



$$\text{Formula: Vertical Exaggeration (VE)} = \frac{\text{Vertical Scale (VS)}}{\text{Horizontal Equivalent (HE)}} \quad (4 \times 1) \quad (4)$$

- 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)

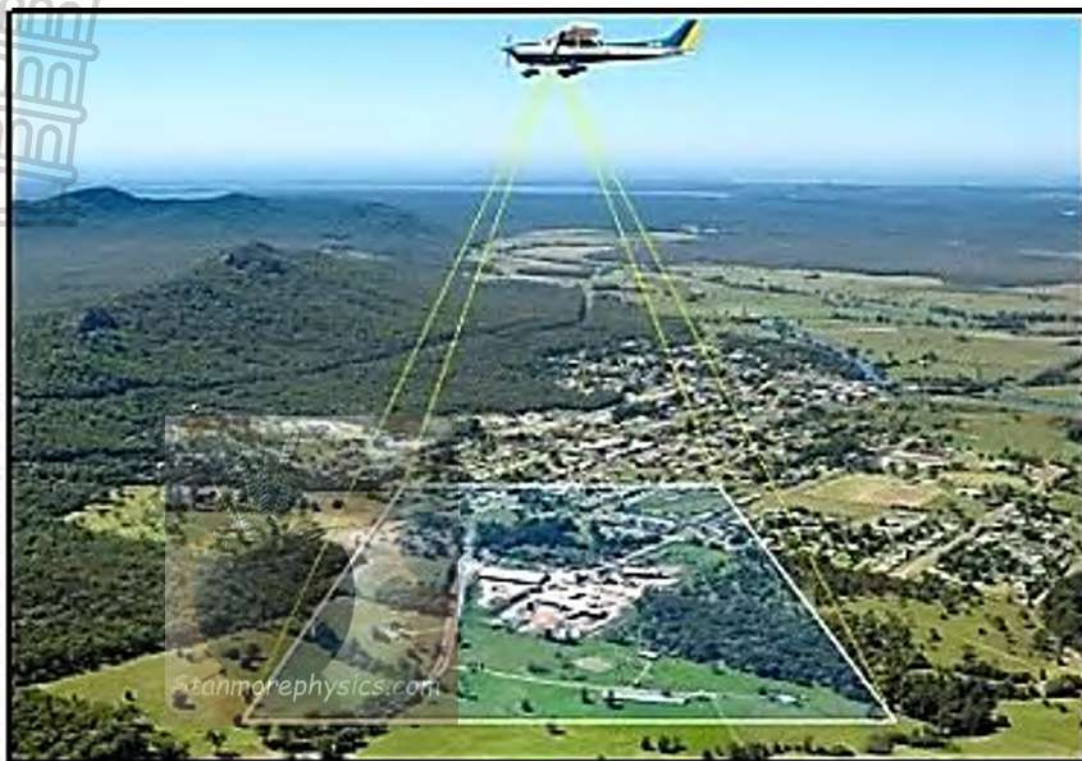
3.2 MAP INTERPRETATION

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)
- 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)

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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**GEOGRAPHY P2
MARKING GUIDELINE**

MARKS: 150

This marking guideline consists of 10 pages.

QUESTION 1: RURAL AND URBAN SETTLEMENTS

- 1.1 1.1.1 B (1)
- 1.1.2 C (1)
- 1.1.3 E (1)
- 1.1.4 A (1)
- 1.1.5 D (1)
- 1.1.6 F (1)
- 1.1.7 B (1)
- 1.1.8 B (1) (8 x 1) (8)
- 1.2 1.2.1 Urbanisation (1)
- 1.2.2 Central place (1)
- 1.2.3 Low order (1)
- 1.2.4 range of goods (1)
- 1.2.5 growth (1)
- 1.2.6 threshold population (1)
- 1.2.7 low (1) (7 x 1) (7)
- 1.3 1.3.1 A process of redressing the injustices of displacement and forced removal that took place during apartheid. (2)
[CONCEPT] (1 x 2) (2)
- 1.3.2 The beneficiaries have seen little or no improvements to their livelihoods (1)
Redistributed land is not used productively (1)
South Africa's land reform efforts lack a focus on struggling farmers (1)
[ANY ONE] (1 x 1) (1)
- 1.3.3 To promote economic growth of those who were disadvantaged (2)
To create self-sufficient farmers (2)
To redress injustices/imbbalances from the past (2)
The legacy of apartheid predominated over the unfair distribution of land and land reform sets out to correct this injustice (2)
National reconciliation (2)
To improve food production in the previously marginalised sectors of the population (2)
Land reform will help people to have access to land (2)
To alleviate poverty as most communities during apartheid lived on communal land (2)
[ANY TWO] (2 x 2) (4)

1.3.4 POST-SETTLEMENT SUPPORT FOR LAND REFORM PROCESSES



- Revising land reform policies (2)
- Measures to ensure redistributed land is used productively (2)
- Inclusion of local communities to establish needs through consultation (2)
- Establishing educational centres in these settlements for up-skilling the communities (2)
- Training and development in modern farming methods/mentorship to new farmers (2)
- Monitoring and evaluation of processes must be reliable (2)
- Monitoring and evaluation of allocation of resources must be reliable (2)
- Relook at the policies of buying land (2)
- Subsidise small scale farming communities to encourage the buying and selling of their produce (2)
- Create market areas for trading (2)

[ANY FOUR]

(4 x 2) (8)

- 1.4 1.4.1 Decentralisation (1) (1 x 1) (1)
- 1.4.2 Planned neighbourhood shopping centre (1) (1 x 1) (1)
- 1.4.3 Access via roads (N2/Access highway/R346) – suits the motorists (1)
 Open land and space for a large mall, with parking space (1)
 Close to outlying residential areas (clientele/market-base) (1) (3 x 1) (3)
- 1.4.4 Attracts high quality facilities and conveniences / opening of businesses (2)
 Growth of emerging middle income will benefit area as more money spent (2)
 Saving as people no longer need to travel (2)
 Permanent jobs created/situated close to job opportunities (2)
 Property values will rise due to investment in area (2)
 Taxi rank linking metropolitan area (East London) would benefit region (2)
 Infrastructure would be improved (accept examples – roads, water ...) (2)
 Better aesthetic appeal due to upgrading (2)
[ANY TWO] (2 x 2) (4)
- 1.4.5 Crime/crime in the inner-city (2)
 Very expensive land and rentals in the CBD (2)
 Overcrowding in the CBD (2)
 Traffic congestion in the CBD (2)
 Reduced access in the CBD (2)
 Lack of parking in the CBD (2)
 Limited expansion prospects in the CBD (2)
[ANY THREE] (3 x 2) (6)
- 1.5 1.5.1 Urban area (1) (1 x 1) (1)

- 1.5.2 Urban sprawl (1) (1 x 1) (1)
- 1.5.3 Poverty (1)
Unemployment (1)
High unemployment rate in the country (1)
Lack of skills (1)
High cost of housing (1)
No proper documentation (1)
Influx of poor foreigners/refugees (1)
[ANY ONE] (1 x 1) (1)
- 1.5.4 Spread of diseases (1)
Social issues (accept examples) (1)
Overcrowding (1)
Lack of hygiene (1)
Lack of basic services (accept examples) (1)
Crime (1)
[ANY TWO] (2 x 1) (2)
- 1.5.5 Protest actions that can turn to violence/can lead to violence (accept examples) (2)
Burning of tyres along roads (2)
Blocking of roads to traffic (2)
Looting and damaging businesses/shops (2)
Burning down shacks (2)
Burning down government/municipal buildings (2)
[ANY TWO] (2 x 2) (4)
- 1.5.6 Relocate people and build decent houses where the space is available (2)
Provide cheap building material to build houses (2)
Provision of proper low-cost houses/RDP houses/Self-help housing schemes (2)
Provide basic services to the people (2)
Provide tarred roads with better drainage systems (2)
Provision of water points and piped water in the houses (2)
Provision of storm water drainage (2)
Provision of sanitation (2)
Regular refuse removal (2)
Provision of electricity in a form of solar panels (2)
Move business to the region (decentralisation) (2)
Improved education provision/upskilling (2)
Improved security (2)
Better pay / increasing minimum wage (2)
Security increases through food gardens or programmes (2)
Microloans for small businesses (2)
Job creation to improve standard of living (2)
Increase more self-help facilities (2)
[ANY THREE] (3 x 2) (6)
- [60]

QUESTION 2: ECONOMIC GEOGRAPHY OF SOUTH AFRICA

2.1 2.1.1 B (1)

2.1.2 A (1)

2.1.3 B (1)

2.1.4 D (1)

2.1.5 B (1)

2.1.6 B (1)

2.1.7 C (1)

2.1.8 B (1)

(8 x 1) (8)

2.2 2.2.1 Informal (1)

2.2.2 Formal (1)

2.2.3 Informal (1)

2.2.4 Informal (1)

2.2.5 Formal (1)

2.2.6 Informal (1)

2.2.7 Formal (1)

(7 x 1) (7)

2.3 2.3.1 Insects (1)
Pest (1)
Diseases (1)
[ANY ONE]

(1 x 1) (1)

2.3.2 700 tons (650 to 750 tons) (2)

(1 x 2) (2)

2.3.3 Increase education/skills of farmers (2)
Provide government subsidies and grants (2)
Funding/capital from banks (2)
Create easier access to services/facilities (accept examples) (2)
Government can intensify support by allocation of agricultural services (2)
Land reform programmes for farmers (2)
More research to improve production (2)
Development of infrastructure (2)
Regulation and subsidy of market prices (2)
[ANY TWO]

(2 x 2) (4)



- 2.3.4 Diminishing profitability given input costs versus financial returns (2)
 Limited capital for farmers (2)
 Sugar tax pushes up production costs (2)
 Insufficient protection against cheap imports (2)
 Use of tariffs, subsidies, quotes make it difficult to compete with major markets (2)
 Water restrictions will increase the costs of production (2)
 Small businesses will be impacted upon because of competition with large scale sugarcane growers (2)

[ANY FOUR]

(4 x 2) (8)

2.4 2.4.1 Electricity (1)

(1 x 1) (1)

- 2.4.2 Job losses (1)
 Lost production/plant closures (1)
 Crime (1)
 Inadequate investment (1)

[ANY TWO]

(2 x 1) (2)

- 2.4.3 Automotive component suppliers and related service providers are created (2)
 Development of link industries (accept examples) (2)
 Causes a multiplier effect with regards to other industries (accept examples) (2)

[ANY ONE]

(1 x 2) (2)

- 2.4.4 Rising costs of energy (2)
 Power cuts/load shedding affect productivity (2)
 Overload on ESKOM grid that cannot cope with demand (2)
 Unreliable power network (2)
 Theft of power cables disrupt power provision (2)
 Corruption in the coal mining sector hampers productivity (2)
 Over reliance on coal as a source of energy (2)
 Coal is a non-renewable resource (2)
 Coal is an unsustainable resource (2)
 Negative environmental impact of coal (2)

[ANY TWO]

(2 x 2) (4)

- 2.4.5 Many skilled/unskilled labourers ensure a high level of productivity (2)
 A well-developed infrastructure providing essential services (2)
 Capital and technology to maintain high levels of production (2)
 Wide variety of raw materials to support industrial development (2)
 Dense/large population creates readily available market/higher purchasing power (2)
 Flat land facilitates the development of new industries (2)
 Well-developed transport system to transport raw materials/goods (2)
 OR Tambo provides access to international investors (2)
 Wide variety of established secondary and tertiary industries (2)
 Johannesburg Security Exchange (JSE) is located in the PWV/Gauteng (2)
 Commercial and economic hub of South Africa (2)

[ANY THREE]

(3 x 2) (6)

2.5 2.5.1 KwaZulu-Natal (1)

(1 x 1) (1)

- 2.5.2 Electronics (1)
 Agro processing (1)
 Pharmaceuticals (1)
 Clothing and textiles (1)
 Automotive (1)

[ANY ONE]

(1 x 1) (1)

2.5.3 King Shaka (1)

(1 x 1) (1)

- 2.5.4 Creates an aerotropolis for supply chain logistics/aviation (2)
 Being a modern airport – it can accommodate larger planes with a 3,7 km runway or exports (2)
 Dube terminal can handle large volumes of goods (2)
 Many more planes can be accommodated at once (2)
 Enhanced operating environment with logistic zones (hubs) support it (2)
 Created interconnected infrastructure to compete on an international scale (2)
 Attracting investors in various sectors (accept examples) (2)

[ANY ONE]

(1 x 2) (2)

- 2.5.5 Decreases the unemployment rate/creates employment (2)
 Develops the local economy by creating more income amongst the local communities (2)
 Reduces poverty in the area (2)
 Raises the standard of living/quality of life (2)
 Reduces the crime levels (2)
 Up skills and reskills of people (4th industrial revolution) (2)
 Created new economic markets (2)
 Upgrading of eThekweni/Richards Bay harbours (2)

[ANY TWO]

(2 x 2) (4)

- 2.5.6 King Shaka International Airport is nearby / Aerotropolis initiative underway (2)
- Roads (N2) are well developed (accessible) and have been upgraded to support greater volumes (2)
- N3 to Gauteng is an important market (2)
- Railway links to Gauteng and other regions provide manufacturers and exporters good supply chain and market access (2)
- Durban harbour which supports import and exports close-by upgraded (2)
- Richards Bay harbour which supports import and exports close-by upgraded (2)
- Airport City and business (passenger) environment is a state-of-art modal trade gateway to the world/world class freight cargo facilities (2)
- Infrastructure development in Dube Trade Zone linking all stakeholders in the area (2)
- Facilities such as Dube Connect will enable the region to expand with its resources available to the Dube operations (2)
- Infrastructure supports both heavy and light industry's (2)
- Large dams and pipelines provide access to water for industrial development (2)

[ANY THREE]

(3 x 2)

(6)

[60]

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SECTION B

QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

3.1 MAPWORK SKILLS AND CALCULATIONS

3.1.1 D (communication tower) (1) (1 x 1) (1)

3.1.2 C (1 455) (1) (1 x 1) (1)

3.1.3 A (ratio scale) (1) (1 x 1) (1)

3.1.4 VS = 1 cm represents 10 m
10 x 100 cm = 1 000 cm (1)

VS = 1 : 1 000 (1)

HS = 1 : 10 000 (1)

$$VE = \frac{1 : 1\,000}{1 : 10\,000} (1)$$

OR $\frac{1}{10\,000} \div \frac{1}{1\,000} (1)$

$$\frac{1}{1\,000} \times \frac{10\,000}{1}$$

25 times (1) (4 x 1) (4)

3.1.5 Yes (1) (1 x 1) (1)

3.1.6 The shape of the feature on the landscape is clearer when vertical (1)
It emphasises the topography of the landscape (1)
Emphasises vertical features which are too small to identify relative to the horizontal scale (1)
Specific features are more recognisable/clearer (1)
[ANY TWO] (2 x 1) (2)

3.2 MAP INTERPRETATION

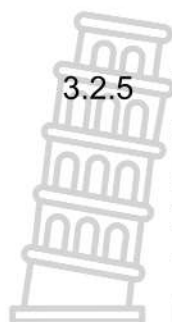
3.2.1 (a) Linear/Line/Ribbon (1)
[ANY ONE] (1 x 1) (1)

(b) It developed along the road (717) (1) (1 x 1) (1)

3.2.2 It is situated between hills/sheltered sites (1)
They are situated close to transport networks/roads (717)/N1 close (1)
Dry point/Situated away from river (1)
[ANY TWO] (2 x 1) (2)

3.2.3 Philippolis has transport routes linking it to the surrounding rural areas/roads from different directions converge (2)
It has many urban services (Accept other examples e.g. Churches/Schools/Police Stations/Post office/Library/Shops/Hospitals/Recreational facilities) (2)
People from the surrounding rural area can use these urban services (2)
Roads from different directions converge (2)
[ANY ONE] (1 x 2) (2)

- 3.2.4 The sphere of influence increases/extends/larger/bigger/expands (1)
(1 x 2) (2)



- 3.2.5 The roads will increase the accessibility of Philippolis attracting more customers from a greater distance (2)
People will travel from further away to obtain goods and services in Philippolis (2)
The roads increase accessibility from different directions (2)
The range would increase (2)
[ANY ONE] (1 x 2) (2)

- 3.2.6 Stop over after a long journey (2)
Refuelling of motor (2)
Buy goods needed for travelling e.g. refreshments (2)
Helps local economy (accept examples) (2)
[ANY ONE] (1 x 2) (2)

3.3 GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

- 3.3.1 Remote sensing (1) (1 x 1) (1)

- 3.3.2 Symbols used on the topographic maps are standard/the same (2)
Scale of 1:50 000 is used on all South African topographic maps (2)
Contour intervals are always 20 m (2)
Format of sheet index is the same (2)
Linear scale evident on all maps (2)
Format of indicating magnetic declination on the map is the same (2)
Alpha-numeric grid cells are use on all topographic maps (2)
[ANY ONE] (1 x 2) (2)

- 3.3.3 Photographs (2)
Satellite images (2)
Testing of natural environment e.g., testing soil and water quality (2)
Physical measurements using secondary data (2)
[ANY ONE] (2 x 1) (2)

- 3.3.4 Relief/Topography (1)
Land-use (1)
Geology (1)
Vegetation (1)
Drainage (1)
[ANY TWO] (2 x 1) (2)

- 3.3.5 Wall (1) (1 x 1) (1)
[30]

TOTAL: 150