

# basic education

Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**



## SENIOR CERTIFICATE EXAMINATIONS/ NATIONAL SENIOR CERTIFICATE EXAMINATIONS

GEOGRAPHY P2

2022

Stanmorephysics.com

MARKS: 150

TIME: 3 hours



This question paper consists of 17 pages.

## INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO SECTIONS:

### SECTION A

QUESTION 1: RURAL AND URBAN SETTLEMENTS (60 MARKS)

QUESTION 2: ECONOMIC GEOGRAPHY OF SOUTH AFRICA (60 MARKS)

### SECTION B

QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES (30 MARKS)

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 answers correctly according to the numbering system used in this question paper.
7. Do NOT write in the margins of the ANSWER BOOK.
8. Draw fully labelled diagrams when instructed to do so.
9. Answer in FULL SENTENCES, except when you have to state, name, identify or list.
10. Units of measurement MUST be indicated in your final answer, e.g. 1 020 hPa, 14 °C and 45 m.
11. You may use a non-programmable calculator.
12. You may use a magnifying glass.
13. Write neatly and legibly.

## SPECIFIC INSTRUCTIONS AND INFORMATION FOR SECTION B

14. A 1 : 50 000 topographic map 2628AC of ALBERTON and a 1 : 10 000 orthophoto map 2628AC 3 of ALBERTON are provided.
15. The area demarcated in RED/BLACK on the topographic map represents the area covered by the orthophoto map.
16. Show ALL calculations where applicable. Marks will be allocated for this.
17. You must hand in the topographic and orthophoto map to the invigilator at the end of the examination.



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

**QUESTION 1: RURAL AND URBAN SETTLEMENTS**

1.1 Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question numbers (1.1.1 to 1.1.8) in the ANSWER BOOK, e.g. 1.1.9 D.

1.1.1 The actual ground that is occupied by a farm is known as the ...

- A situation.
- B location.
- C site.
- D space.

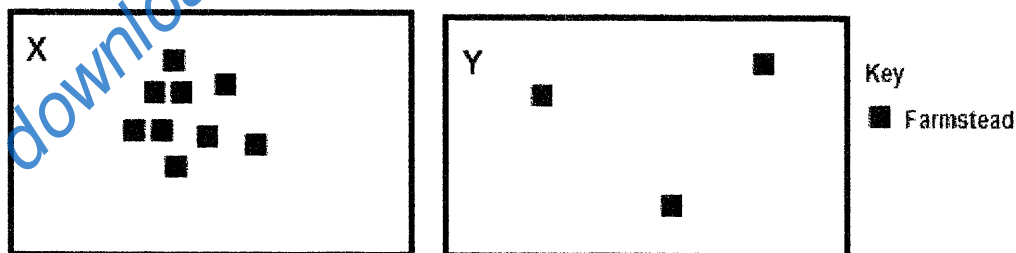
1.1.2 The choice of site for the location of a farm is influenced by ...

- A population size.
- B topography.
- C finance.
- D markets.

1.1.3 The situation of a farm is influenced by ...

- A soil fertility.
- B water sources.
- C distance to markets.
- D steepness of land.

Refer to the patterns of rural settlements (X and Y) to answer QUESTIONS 1.1.4 to 1.1.6.



[Source: Examiner's own sketch]

1.1.4 The social advantage of settlement X is ...

- A safety and security.
- B using technology.
- C that a local market is available.
- D making more profit.



1.1.5 Settlement pattern Y is classified as a dispersed settlement due to the ...

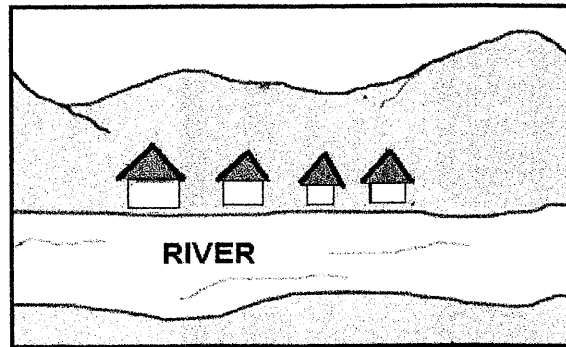
- A farm plots being far apart.
- B distance away from the market.
- C farmsteads being far apart.
- D availability of flat land.

1.1.6 An economic advantage of settlement Y is ...

- A greater privacy.
- B the potential for large profits.
- C the high cost of buying equipment.
- D independence.



Refer to the sketch of the settlement to answer QUESTIONS 1.1.7 and 1.1.8.



[Source: Examiner's own sketch]

1.1.7 The shape of the settlement is ...

- A linear.
- B dispersed.
- C crossroads.
- D round.

1.1.8 The main reason for the development of the settlement is ...

- A access to a road.
- B a gap in the mountain.
- C access to water.
- D defence from enemies.

(8 x 1) (8)



1.2 Choose the word/term from COLUMN B that completes the statement in COLUMN A. Write only **Y** or **Z** next to the question numbers (1.2.1 to 1.2.7) in the ANSWER BOOK, e.g. 1.2.8 **Z**.

COLUMN A		COLUMN B	
1.2.1	The process where people move from urban areas to rural areas is known as ...	<b>Y</b>	urbanisation
		<b>Z</b>	counter-urbanisation
1.2.2	The pace (speed) at which urbanisation occurs is known as ...	<b>Y</b>	rate of urbanisation
		<b>Z</b>	level of urbanisation
1.2.3	The formless expansion of urban areas is referred to as ...	<b>Y</b>	urban sprawl
		<b>Z</b>	natural growth
1.2.4	The process where the percentage of the population living in the urban areas increases is known as ...	<b>Y</b>	rural-urban migration
		<b>Z</b>	urbanisation
1.2.5	The increase in the number of people in urban areas is known as ...	<b>Y</b>	urban expansion
		<b>Z</b>	urban growth
1.2.6	An urban settlement with one dominant function is called a ... town.	<b>Y</b>	specialised
		<b>Z</b>	junction
1.2.7	A town that provides goods to the surrounding rural population is known as a ... town.	<b>Y</b>	central place
		<b>Z</b>	gateway

(7 x 1) (7)



1.3 Refer to the infographic based on rural depopulation.

**POPULATION IN RURAL AREAS FROM 2017 TO 2020**

Rural depopulation is mainly caused by the migration of people from rural areas to urban areas. These people search for employment and a better quality of life. The movement of people to urban areas creates various economic and social challenges for the rural area, e.g. reducing the standard of living. Strategies need to be put in place to limit the number of people leaving the rural areas and also encouraging people to return.

Year	Population (in thousands)
2017	19 479
2018	18 465
2019	17 439
2020	16 408

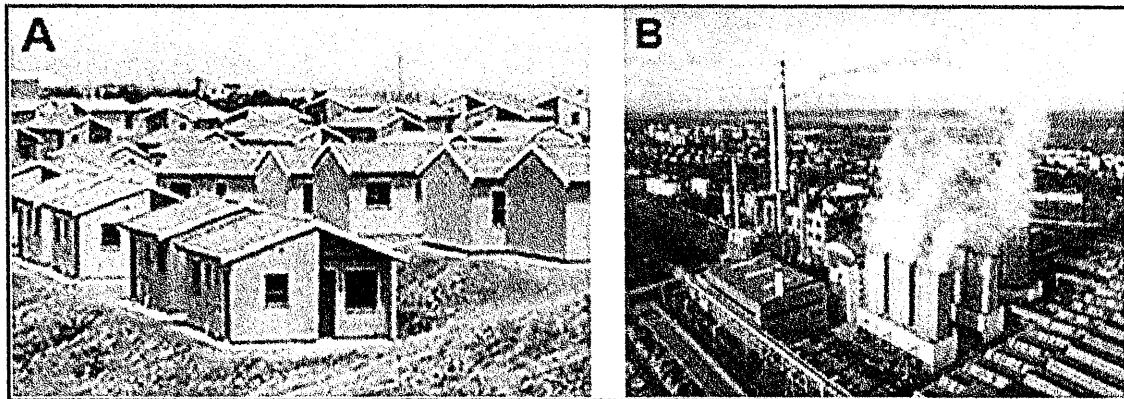
[Adapted from <http://www.ejolt.org>]

- 1.3.1 Define the concept *rural depopulation*. (1 x 2) (2)
- 1.3.2 Give evidence from the sketch that rural depopulation has occurred. (1 x 1) (1)
- 1.3.3 Refer to the table and give evidence that indicates that rural depopulation took place between 2017 and 2020. (1 x 2) (2)
- 1.3.4 What is the social importance of discouraging (limiting) rural depopulation? (1 x 2) (2)
- 1.3.5 In a paragraph of approximately EIGHT lines, suggest FOUR sustainable strategies that could create more employment opportunities in rural areas. (4 x 2) (8)





1.4 Refer to the photographs showing buildings in two land-use zones.



[Source: <https://www.dreamstime.com/illustration/factory-sketch.html>  
[https://www.google.com/imgres?imgurl=https%3A%2F%2Fimage.shutterstock.com%](https://www.google.com/imgres?imgurl=https%3A%2F%2Fimage.shutterstock.com%2F)]

Refer to photograph **A**.

1.4.1 Classify the residential area shown in the photograph as either high income or low income. (1 x 1) (1)

1.4.2 Give evidence from the photograph to support your answer to QUESTION 1.4.1. (1 x 2) (2)

Refer to photographs **A** and **B**.

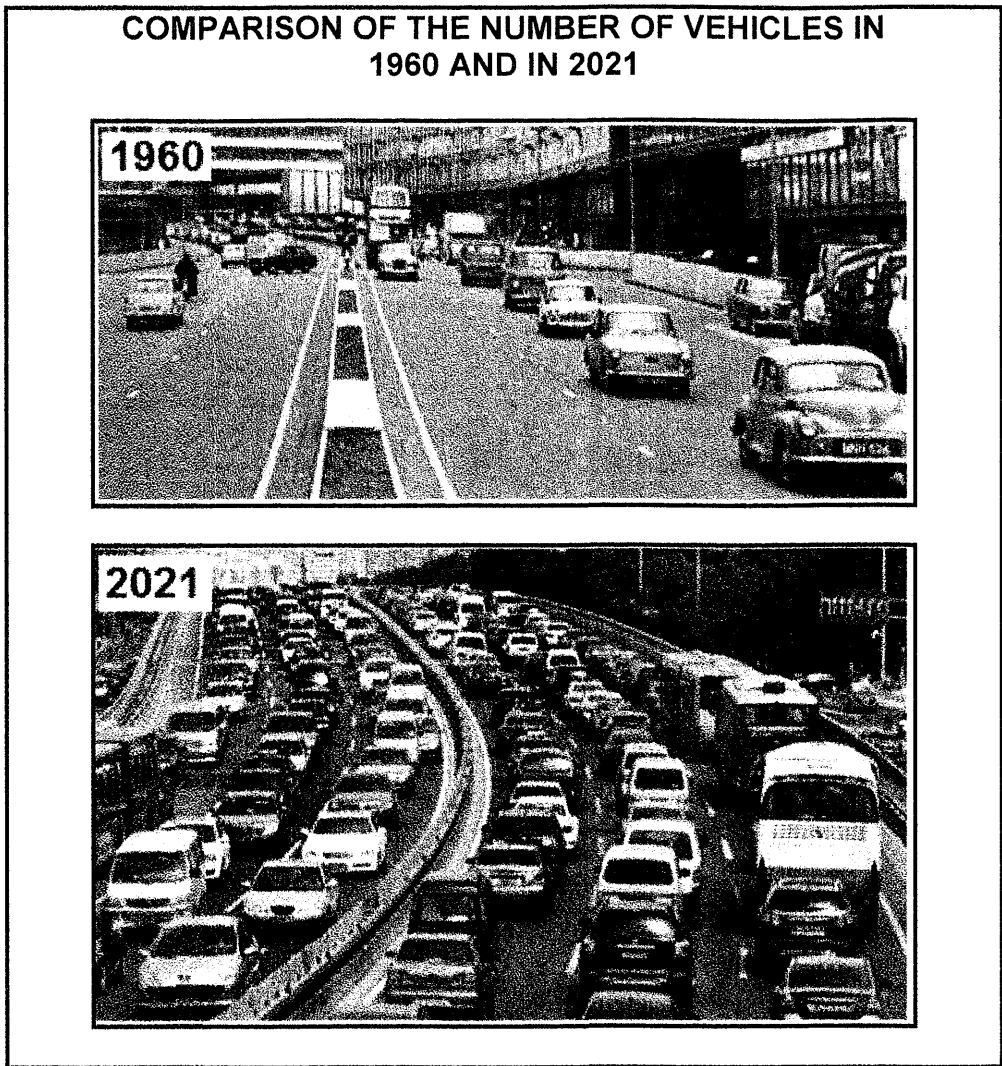
1.4.3 Why is the type of residential area (answer to QUESTION 1.4.1) often located close to an industrial area? (2 x 2) (4)

1.4.4 Give TWO social injustices that are experienced by people in this residential area due to the industrial activity at **B**. (2 x 2) (4)

1.4.5 Explain TWO measures that can be implemented by the industries at **B** to reduce the impact of the social injustices. (2 x 2) (4)



1.5 Refer to the photographs showing an urban settlement issue.



[Adapted from <https://www.google.com/traffic-index-global-traffic-congestion>]

- 1.5.1 What is the trend shown in the photographs concerning the number of vehicles between 1960 and 2021? (1 x 1) (1)
- 1.5.2 Give TWO possible reasons for this trend (answer to QUESTION 1.5.1). (2 x 2) (4)
- 1.5.3 How does traffic congestion impact the daily traveller? (2 x 2) (4)
- 1.5.4 Suggest THREE strategies that could be implemented to reduce traffic congestion in urban areas. (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 and write only the letter (A–D) next to the question numbers (2.1.1 to 2.1.8) in the ANSWER BOOK, e.g. 2.1.9 D.

2.1.1 ... are examples of activities in the primary sector.

- A Policing, teaching and brick-laying
- B Retail stores, banking and education
- C Trade, transport and ship building
- D Fishing, forestry and mining

2.1.2 Construction is an example of the ... economic sector.

- A primary
- B secondary
- C tertiary
- D quaternary

2.1.3 The tertiary sector refers to ...

- A the extraction of raw materials from the natural environment.
- B the processing of raw materials into finished products.
- C the exchange of goods and services between countries.
- D research and information technology.

2.1.4 An example of a tertiary activity is ...

- A farming.
- B manufacturing.
- C tourism.
- D research.

2.1.5 This economic sector is linked to the processing of information:

- A Primary
- B Secondary
- C Tertiary
- D Quaternary

2.1.6 Gross national product (GNP) is the ...

- A value of goods and services produced by permanent and non-permanent citizens in a country in one year.
- B value of goods and services produced by the permanent inhabitants of a country in one year.
- C contribution of individual provinces to the GDP in one year.
- D financial statement showing the value of a country's transactions compared to the rest of the world.



2.1.7 Examples of value-added products are:

- (i) Maize
- (ii) Wine
- (iii) Fruit
- (iv) Sugar

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



2.1.8 The TWO sectors that are the greatest contributors to the GDP of South Africa:

- (i) Primary
- (ii) Secondary
- (iii) Tertiary
- (iv) Quaternary

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

(8 x 1) (8)

2.2 Choose a term from COLUMN B that matches the statement in COLUMN A. Write only the letter (A–H) next to the question numbers (2.2.1 to 2.2.7) in the ANSWER BOOK, e.g. 2.2.8 I.


COLUMN A		COLUMN B	
2.2.1	Buying and selling of goods and services	A	trade agreement
		B	trade
2.2.2	The difference in value between a country's imports and exports	C	exports
2.2.3	Commodities or goods brought into a country from another country	D	imports
		E	balance of trade
2.2.4	An arrangement between countries with respect to trade	F	local trade
2.2.5	Goods traded within a country	G	foreign exchange
2.2.6	Goods manufactured and traded between countries	H	international trade
2.2.7	Goods or services sold to another country		

(7 x 1) (7)



2.3 Refer to the case study on beef production in South Africa.

**BEEF PRODUCTION IN SOUTH AFRICA**



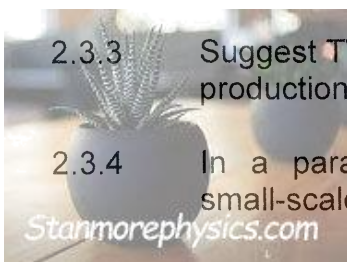
South Africa produces 85% of its meat requirements. There is a great demand for beef locally. The local demand for beef generally outstrips production, even though there are untapped reserves in the communal farming areas.

In South Africa, beef production is characterised by its dual nature of small-scale and large-scale farming. Since cattle serves as an indicator of wealth in some communities, communal farming does not contribute to South Africa's meat requirements.

Characteristically, beef production is a long-term undertaking and profits are rarely made in the short term. The climatic conditions in some parts of South Africa also are not suitable for beef production.

[Adapted from <https://www.idc.co.za/wp-content/uploads/2018/11/Beef-Study-Final>]

- 2.3.1 What is the percentage shortfall in South Africa regarding its meat requirements? (1 x 1) (1)
- 2.3.2 Why is beef production important for South Africa? (1 x 2) (2)
- 2.3.3 Suggest TWO physical factors that have a negative impact on beef production in South Africa. (2 x 2) (4)
- 2.3.4 In a paragraph of approximately EIGHT lines, suggest how small-scale beef farmers can be assisted to increase production. (4 x 2) (8)

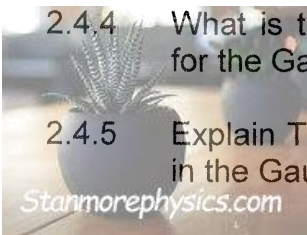




2.4 Refer to the infographic on the Gauteng (PWV) core industrial region.

<b>GAUTENG (PWV) INCREASED CONTRIBUTION TO GROSS DOMESTIC PRODUCT</b>	
<p>The Gauteng (PWV) core industrial region generated 35%, or an estimated R675 billion, of the gross domestic product in 2021, consolidating its position as the single largest contributor to the economy of the country. Even though Gauteng (PWV) has the smallest land area of 1,4% in the country, its economy is more than twice that of the South-western Cape.</p> <p>After the tertiary sector, the secondary sector is the second largest contributor, generating 24,3% of the provincial economy. The manufacturing subsector dominated contributions within the secondary sector. The Gauteng (PWV) core industrial region accounts for the largest share of the country's manufacturing sector with almost half of all factories housed in the province.</p>	
<p><b>GAUTENG CONTRIBUTED 35% TO SOUTH AFRICA'S GDP IN 2021</b></p> <p><b>42% TO INDUSTRIAL OUTPUT</b></p> <p><b>53% TO EXPORTS</b></p>	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; margin-bottom: 10px;"> <p style="margin: 0;"><b>PEOPLE LIVING IN GAUTENG IN 2021</b> <b>15,2 MILLION</b></p> </div> <div style="border: 1px solid black; border-radius: 10px; padding: 5px;"> <p style="margin: 0;"><b>POPULATION IN GAUTENG BY 2030</b> <b>18 MILLION</b></p> </div>
<p>[Source: file://Growing%20Gauteng (PWV) core industrial region%20Together%202030]</p>	

- 2.4.1 What percentage did the Gauteng (PWV) core industrial region contribute to South Africa's GDP in 2021? (1 x 1) (1)
- 2.4.2 Give TWO main industries found in the Gauteng (PWV) core industrial region. (2 x 1) (2)
- 2.4.3 Give a reason from the infographic for the manufacturing subsector dominating the secondary sector in the Gauteng (PWV) core industrial region. (1 x 2) (2)
- 2.4.4 What is the advantage of Gauteng's high population concentration for the Gauteng (PWV) core industrial region? (2 x 2) (4)
- 2.4.5 Explain THREE factors that have favoured the location of industries in the Gauteng (PWV) core industrial region. (3 x 2) (6)




2.5 Refer to the infographic on the informal sector.

### CAR GUARDING AS A LIVELIHOOD IN THE INFORMAL SECTOR

Car guarding is a distinctly South African informal sector employment activity. A car guard is someone who, in exchange for a donation, offers to guard vehicles in a public or private parking area. The amount of the donation is at the discretion of the motorist.

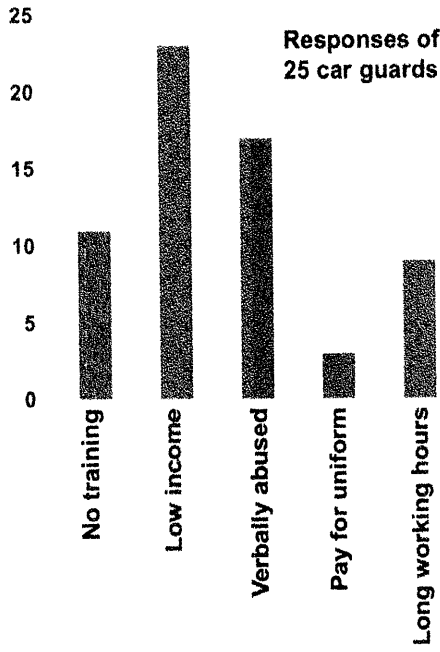
Many South Africans are unemployed. Foreigners come to South Africa seeking a better life, but they struggle to find employment. Car guarding, therefore, is an opportunity through which many people may be able to earn at least some income.

#### Profile of a car guard



- Average age: 38
- Average number of years working as car guard: 6
- Average working days per week: 5,4
- Average working hours per day: 8,5
- Average income per day: R98,33

#### Responses of 25 car guards



Risk/Challenge	Number of Responses
No training	11
Low income	23
Verbally abused	17
Pay for uniform	3
Long working hours	9

#### Risks and challenges

[Source: 'Examining car guarding as a livelihood in the informal sector', article in Local Economy, September 2017]

- 2.5.1 Why do car guards fall within the informal sector? (1 x 2) (2)
- 2.5.2 According to the graph, what is the greatest risk and challenge for car guards? (1 x 1) (1)
- 2.5.3 Why is the income of a car guard dependent on the number of hours worked? (1 x 2) (2)
- 2.5.4 Give reasons why the number of car guards increased in urban areas over the last few years. (2 x 2) (4)
- 2.5.5 What can be done by the local government to improve the working conditions of South Africans and foreigners in the informal sector? (3 x 2) (6)

[60]

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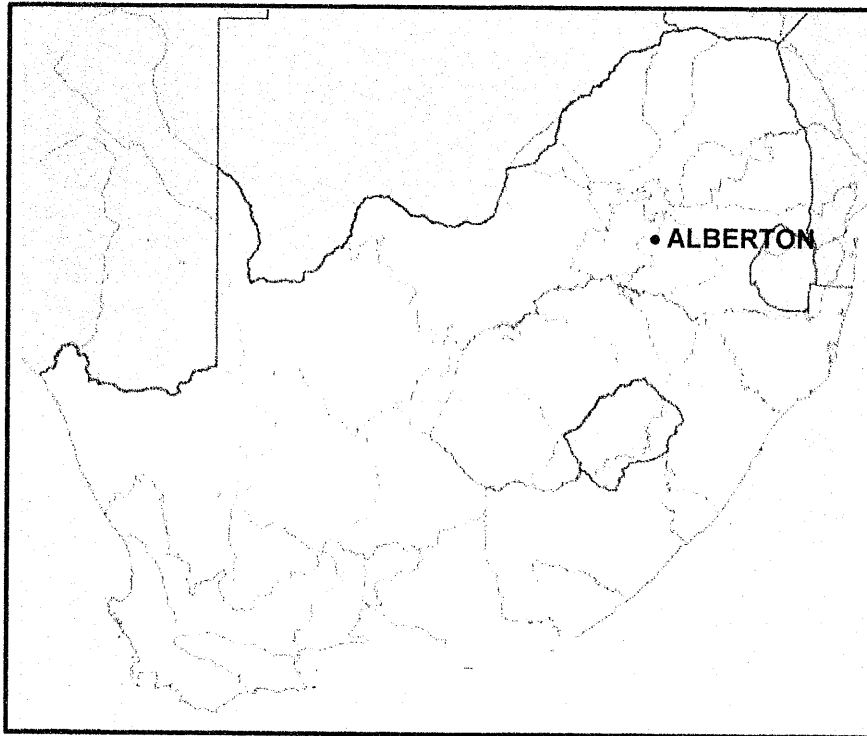
Please turn over



**SECTION B**

**QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES**

**GENERAL INFORMATION ON ALBERTON**



**Coordinates: 26°15'S; 28°06'E**

Alberton is a city situated in the southern part of the East Rand of Gauteng in South Africa. Alberton is primarily residential in character, with most of its workers commuting to work in nearby suburbs or cities on a daily basis.

Due to its central location, Alberton has become one of the leading industrial areas – with short travelling times to large centres like Pretoria and Johannesburg. Access to major arterial routes allow for quick transportation of both raw materials and finished products to their destinations.

[Source: <https://www.3cubeproperty.co.za/area-profiles/alberton>]

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

**ENGLISH**

Golf Course  
Race Course  
River  
Sewage Disposal Works

**AFRIKAANS**

Gholfbaan  
Resiesbaan  
Rivier  
Riolsuiweringswerke



3.1 MAP SKILLS AND CALCULATIONS

- 3.1.1 The map index for Alberton is 2628AC. **28** represents ...
- A 28° south of the equator.
  - B 28' south of the equator.
  - C 28' west of Greenwich meridian.
  - D 28° east of Greenwich meridian. (1 x 1) (1)
- 3.1.2 The coordinates of trigonometrical station 602, **F** in block **C3** on the topographic map, are ...
- A 26°18'45"S; 28°07'55"E.
  - B 26°17'49"S; 28°08'55"E.
  - C 26°17'15"S; 28°08'55"E.
  - D 28°07'52"S; 26°17'55"E. (1 x 1) (1)
- 3.1.3 Calculate the straight-line distance, in kilometres, between point **6** in block **A4** and point **7** in block **B4** on the orthophoto map.
- Formula: **Actual Distance = Map distance x Map scale** (1 x 2) (2)
- 3.1.4 Determine the true bearing of trigonometrical station 602, **F** in block **C3**, from Kathlehong railway station, **G** in block **D4** on the topographic map. (1 x 1) (1)
- Refer to the topographic map to answer the questions on magnetic declination for 2022.
- 3.1.5 The difference in years is ...
- A 7.
  - B 8.
  - C 9.
  - D 10. (1 x 1) (1)
- 3.1.6 The mean annual change is ... west of true north.
- A 3'
  - B 8'
  - C 9'
  - D 10' (1 x 1) (1)
- 3.1.7 Use the answers to QUESTIONS 3.1.5 and 3.1.6 to calculate the current magnetic declination. (3 x 1) (3)



### 3.2 MAP INTERPRETATION

3.2.1 Feature **8** in block **C5** on the orthophoto map represents a ...

- A main road.
- B perennial river.
- C secondary road.
- D race course. (1 x 1) (1)

3.2.2 Street pattern (plan) **9** in block **A2** on the orthophoto map is ...

- A irregular (planned).
- B gridiron.
- C radial.
- D irregular (unplanned). (1 x 1) (1)



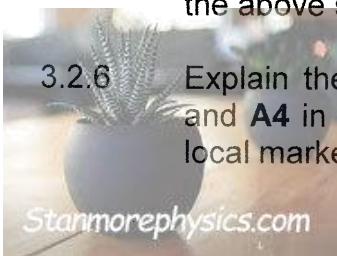
3.2.3 Give evidence from block **A2** to support your answer to QUESTION 3.2.2. (1 x 2) (2)

3.2.4 A school is located at **10** in block **B3** on the orthophoto map. How does the street pattern (plan) identified in QUESTION 3.2.2 create a problem for the parents that transport their children to school? (1 x 2) (2)

Refer to the topographic map.

3.2.5 The industries located in blocks **A5** and **B5** can be classified as heavy industries.

Give TWO pieces of evidence found in blocks **A5** and **B5** to support the above statement. (2 x 2) (4)

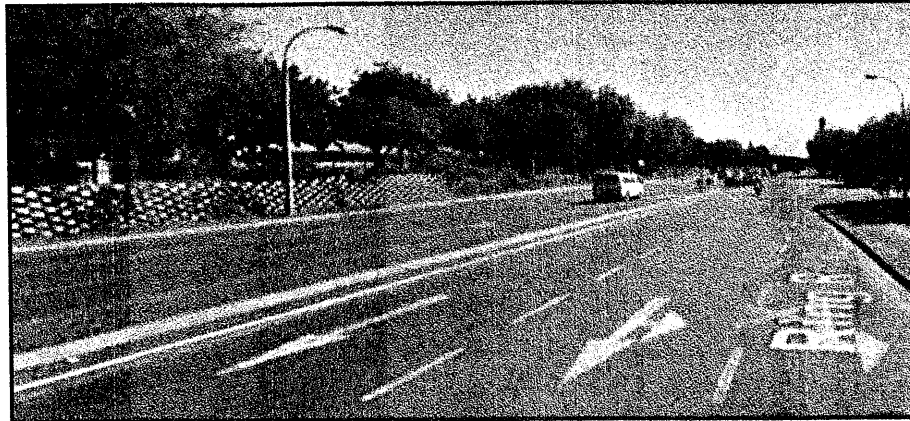


3.2.6 Explain the importance of the N3 (national freeway) in blocks **A3** and **A4** in creating accessibility to the industrial area at **H** for large local markets. (1 x 2) (2)



3.3 GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

Refer to the image of Ring Road West located in block **A3** on the orthophoto map.



[Source: <https://www.google.com/maps/@-26.2700631,28.1204164,145m/data=!3m1!1e3>]

- 3.3.1 Is the image of Ring Road West classified as vector or raster data? (1 x 1) (1)
- 3.3.2 Give a reason to support your answer to QUESTION 3.3.1. (1 x 1) (1)
- 3.3.3 Why is the number of lanes on Ring Road West referred to as attribute data? (1 x 2) (2)

Refer to blocks **A5** and **B5** on the topographic map.

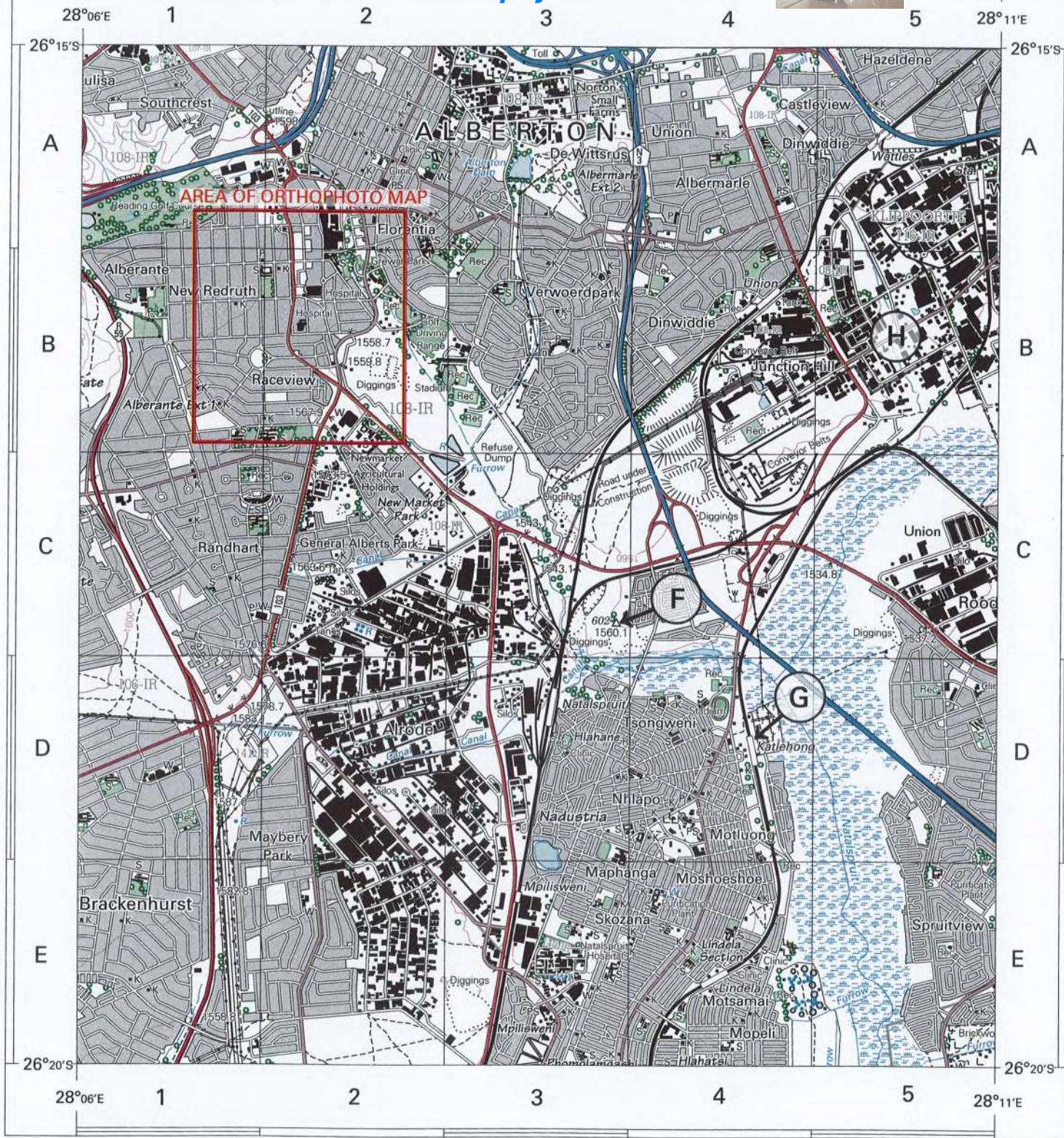
- 3.3.4 Define the term *buffering*. (1 x 2) (2)
  - 3.3.5 Why is buffering northwest of Union, in block **C5**, necessary? (1 x 2) (2)
- [30]**

**TOTAL: 150**





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Gemiddelde magnetiese deklinasie 18°29' Wes van Ware Noord (Julie 2013).  
Gemiddelde jaarlikse verandering 3' Westwaarts (Julie 2013 - Junie 2014).



CONTOUR INTERVAL 20 METRES / KONTOERTUSSENRUIMTE 20 METER

REFERENCE

National Freeway; National Route	International Boundary and Beacon	Fence; Wall
Arterial Route	Provincial Boundary	Windpump; Monument
Main Road	Protected Area	Communication Tower
Secondary Road; Bench Mark	Perennial River	Mine Dump; Excavation
Other Road; Bridge	Perennial Water	Trigonometrical Station; Marine Beacon
Track and Hiking Trail	Non-perennial River	Lighthouse and Marine Light
Railway; Station or Siding	Non-Perennial Water	Cemetery; Grave
Other Railway; Tunnel	Dry Water Course	Erosion; Sand
Embankment; Cutting	Dry Pan	Woodland
Power Line	Marsh and Vlei	Cultivated Land
Built-up Area (High, Low Density)	Pipeline (above ground)	Orchard or Vineyard
Buildings; Ruin	Water Tower; Reservoir; Water Point	Recreation Ground
Post Office; Police Station; Store	Coastal Rocks	Row of Trees
Place of Worship; School; Hotel	Prominent Rock Outcrop	Original Farms



CONTOUR INTERVAL 5 METRES - KONTOERTUSSENRUIMTE 5 METER

VERKLARING

Nasionale Deurpad; Nasionale Roete	Internasionale Grens en Baken	Draadheining; Muur
Hoofverkeersroete	Provinsiale Grens	Windpomp; Monument
Hoofpad	Bewarings Gebied	Kommunikasietoring
Sekondêre Pad; Hoogtemerk	Standhoudende Rivier	Mynhoop; Uitgraving
Ander Pad; Brug	Standhoudende Water	Peilbaken; Seevaartbaken
Dowwe Pad en Voetslaanpad	Nie-standhoudende Rivier	Vuurtoring en Seevaartlig
Spoorweg; Stasie of Sylyn	Nie-standhoudende Water	Begraafplaas; Graf
Ander Spoorweg; Tunnel	Droë Loop	Erosie; Sand
Opvalling; Deurgrawing	Droë Pan	Beboste Gebied
Kraglyn	Moeras en Vlei	Bewerkte Land
Beboue Gebied (Hoë, Laë Digtheid)	Pylyn (bo die grond)	Boord of Wingerd
Geboue; Murasie	Watertoring; Reservoir; Waterpunt	Ontspanningsterrein
Poskantoor; Polisieostasie; Winkel	Kuslynrotse	Rye Bome
Plek van Aanbidding; Skool; Hotel	Prominente Klipbank	Oorspronklike Plase