



# basic education

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

## SENIOR CERTIFICATE EXAMINATIONS/ NATIONAL SENIOR CERTIFICATE EXAMINATIONS

GEOGRAPHY P2

MAY/JUNE 2026

Stanmorephysics.com

**MARKS: 150**

**TIME 3 hours**

**This question paper consists of 26 pages.**



## INSTRUCTIONS AND INFORMATION

1. This 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 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. 25 tons, 10 years, 50% 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 topographical map 2628AB BENONI and a 1 : 10 000 orthophoto map 2628AB 17 BENONI are provided.
15. The area demarcated in RED/BLACK on the topographical map represents the area covered by the orthophoto map.
16. Show ALL calculations. Marks will be allocated for steps in calculations.
17. You must hand in the topographical and orthophoto map to the invigilator at the end of this examination.

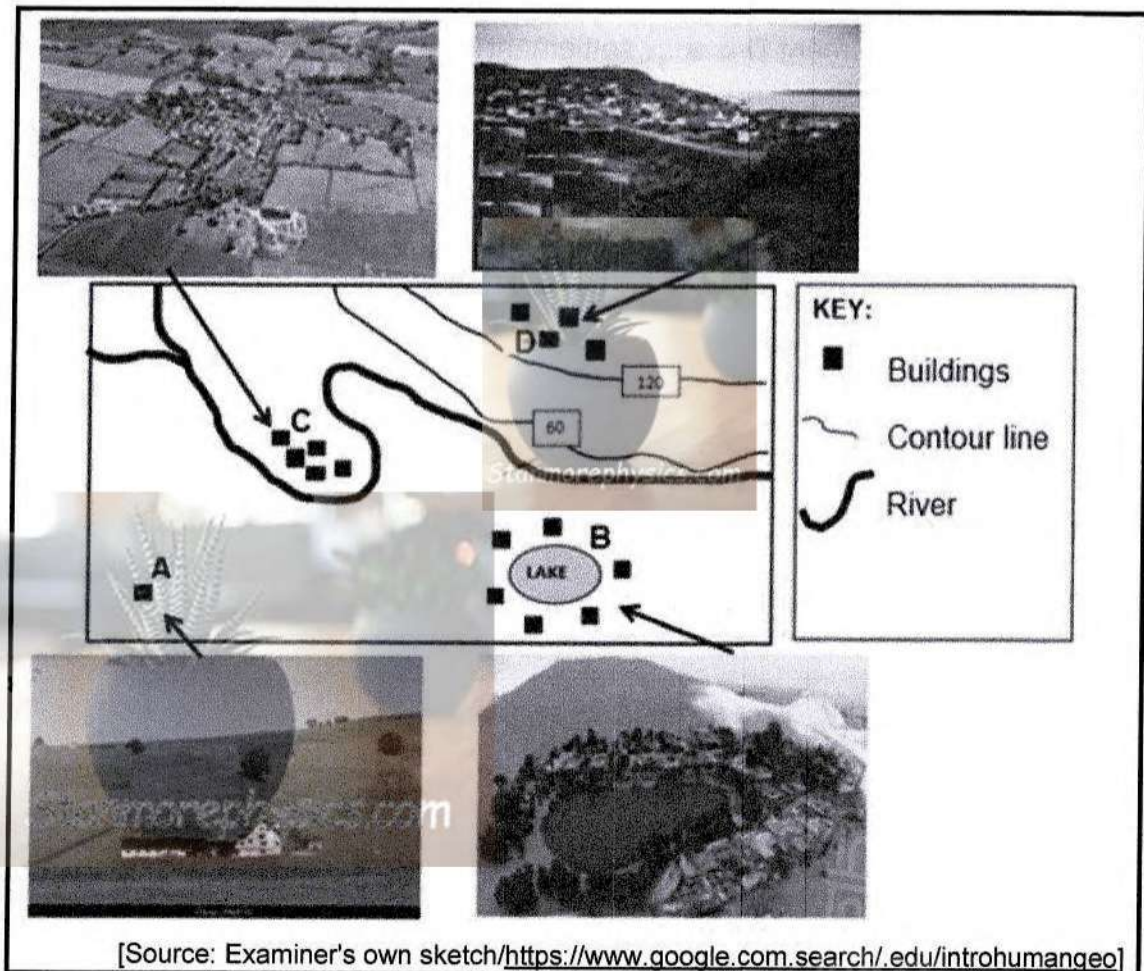


**SECTION A: RURAL AND URBAN SETTLEMENTS AND ECONOMIC GEOGRAPHY OF SOUTH AFRICA**

**QUESTION 1: RURAL AND URBAN SETTLEMENTS**

1.1 Various options are provided as possible answers to the following questions based on rural settlements. 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.

Refer to the photographs and sketch below on rural settlement patterns and factors affecting the site of rural settlements to answer QUESTIONS 1.1.1 to 1.1.4.



1.1.1 An economic advantage of the settlement pattern at **A**:

- A Able to farm for a profit
- B Have privacy
- C Easy access to basic services
- D Less security

1.1.2 The shape of the settlement at **B**:

- A Wet-point
- B Linear
- C Round
- D Dry-point





1.1.3

The settlement pattern at **C** is ... and a social advantage of this settlement pattern is ...

- (i) dispersed
- (ii) nucleated
- (iii) increased security
- (iv) fragmented land

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

1.1.4

Settlement **D** is a ... settlement as it is located ... to/from the water source.

- (i) wet-point
- (ii) dry-point
- (iii) close
- (iv) further

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



QUESTIONS 1.1.5 to 1.1.8 are based on land reform.

1.1.5

The purpose of land reform in rural settlements after 1994 was to ... and ... in South Africa.

- (i) increase rural-urban migration
- (ii) stimulate economic growth
- (iii) alleviate poverty
- (iv) promote subsistence farming

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

1.1.6

The process of compensating people who lost their land prior to 1994 is known as land ...

- A tenure.
- B expropriation.
- C redistribution.
- D restitution.





1.1.7

... is/are necessary for successful land redistribution.

- A Willing seller and willing buyer agreement
- B Gaps in land redistribution policies
- C Rural depopulation
- D Land claim disputes

1.1.8

Land ... recognises the rights of workers to stay on farms.

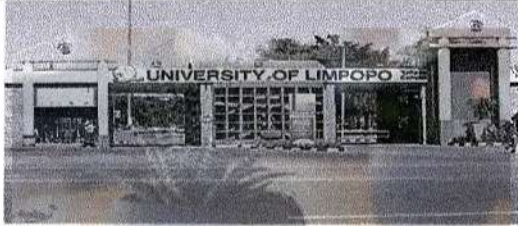

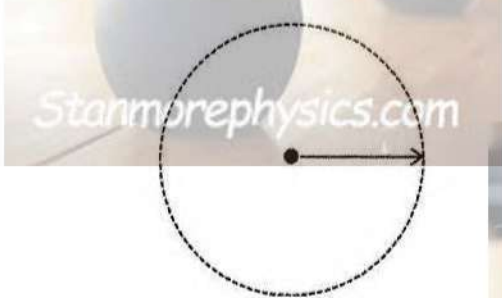

- A restitution
- B expropriation
- C tenure
- D redistribution

(8 x 1) (8)



1.2 Refer to the source below on low- and high-order functions and services offered in urban settlements. These are considered to be central places.

Choose the term/concept from COLUMN B that matches 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 Y.

| A   | B   |     |  |       |   |                     |   |
|---|---|-----|--|-------|---|---------------------|---|
|    |   |     |  |       |   |                     |   |
|   |  |     |  |       |   |                     |   |
| <table border="1" style="margin-left: auto; margin-right: 0;"> <thead> <tr> <th colspan="2" style="text-align: center;">KEY</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Range</td> <td style="text-align: center; padding: 5px;">→</td> </tr> <tr> <td style="padding: 5px;">Sphere of influence</td> <td style="text-align: center; padding: 5px;">○</td> </tr> </tbody> </table> |   | KEY |  | Range | → | Sphere of influence | ○ |
| KEY   |   |     |  |       |   |                     |   |
| Range   | →   |     |  |       |   |                     |   |
| Sphere of influence   | ○   |     |  |       |   |                     |   |

[Source: Examiner's own sketch]

| COLUMN A   | COLUMN B                                  |
|--|---|
| 1.2.1 ...-order centre <b>A</b> offers specialised services/goods.                               | Y High<br>Z Low                           |
| 1.2.2 ...-order centres have a greater range.  | Y Low<br>Z High                           |
| 1.2.3 The range of centre <b>B</b> is determined by the ... purchased.                           | Y frequency of goods<br>Z amount of goods |
| 1.2.4 Centre <b>A</b> is associated with a ... sphere of influence.                              | Y smaller<br>Z larger                     |
| 1.2.5 The total number of centres such as <b>B</b> is more because of ...                        | Y specialisation<br>Z convenience         |
| 1.2.6 The threshold population of centre <b>B</b> is ...   | Y low<br>Z high                           |
| 1.2.7 The variety of services offered in centres such as <b>A</b> are ... than centre <b>B</b> . | Y more<br>Z less                          |

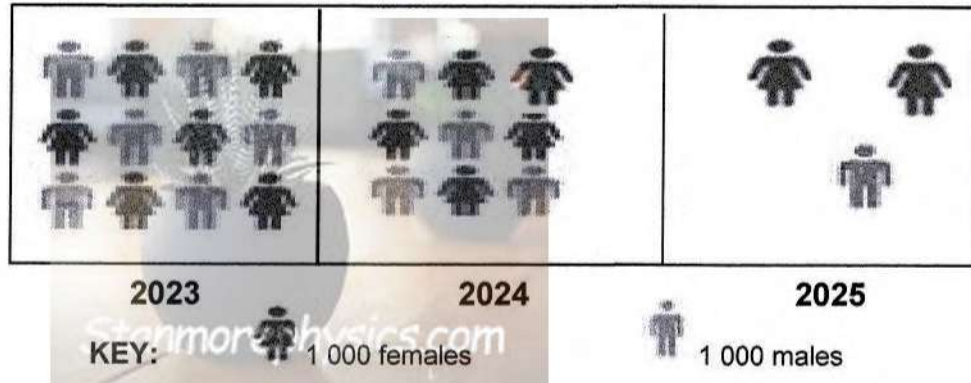
(7 x 1)

(7)

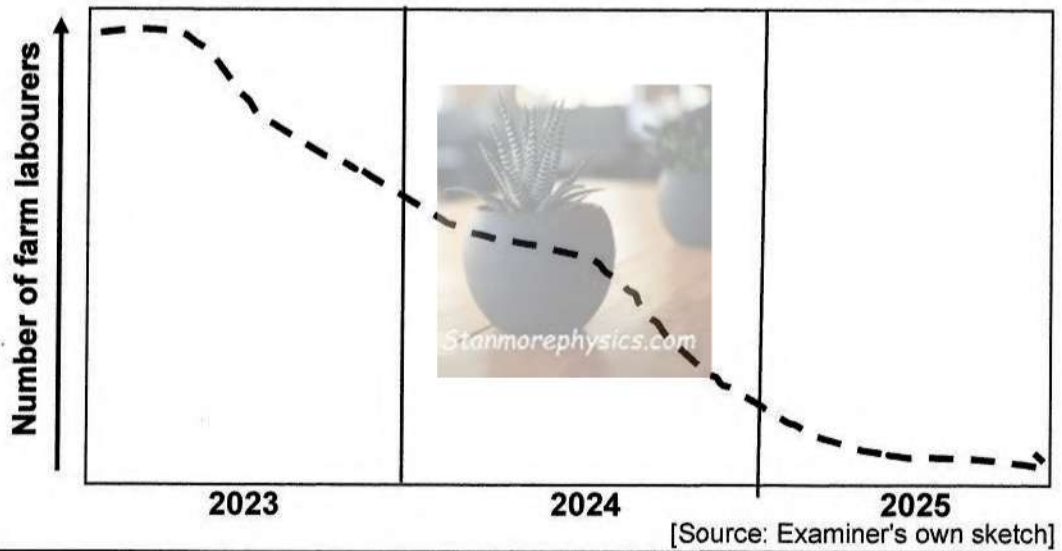


1.3 Refer to the graphs and the photograph below on rural depopulation.

**PICTOGRAPH SHOWING GENDER DISTRIBUTION AMONG FARM LABOURERS**



**LINE GRAPH SHOWING NUMBER OF FARM LABOURERS**



**CAUSE OF RURAL DEPOPULATION**



Source: <https://www.google.co/search?q=farm+with+machines>





1.3.1 Refer to the line graph on page 7.

- (a) Describe the general trend in the line graph with regard to the number of farm labourers from 2023 to 2025. (1 x 1) (1)
- (b) Identify the cause of this trend (answer to QUESTION 1.3.1) as depicted in the photograph. (1 x 1) (1)

1.3.2 Refer to the pictograph (gender distribution) on page 7.

- (a) Do more males or females leave rural settlements? (1 x 1) (1)
- (b) What is the negative social impact of this (answer to QUESTION 1.3.2(a)) on rural settlements? (2 x 2) (4)

1.3.3 In a paragraph of approximately EIGHT lines, suggest strategies that rural municipalities can implement (to put in place) to reduce depopulation of rural areas. (4 x 2) (8)



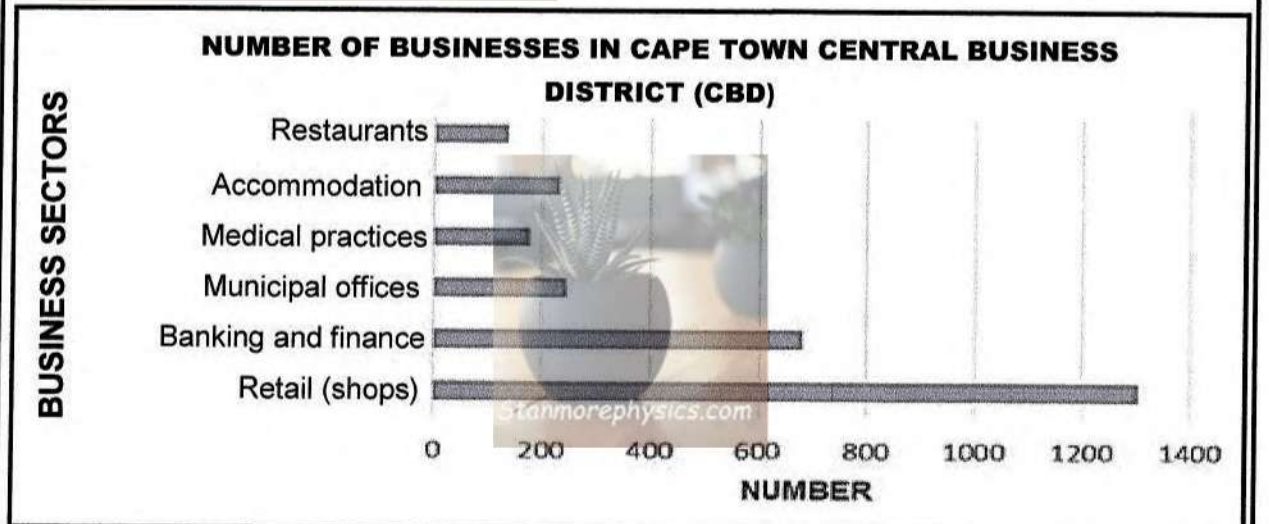
- 1.4 Refer to the infographic below on the Cape Town central business district (CBD) as a land-use zone.

**CAPE TOWN PROPOSES NEW CBD SPATIAL PLAN**

Commerce is the main economic activity of the central part of Cape Town city. This is the reason why a greater number of people visit the central business district (CBD).

The municipality of Cape Town intends to transform the CBD into an environment that is more 'friendly' to people with the intention to reduce traffic congestion and facilitate more access for pedestrians.

[Adapted from <https://atlanticsun.co.za/news/2025-04-07-have-your-say-on-plans-for-cbd/>]



[Adapted from <https://www.capetownccid.org/about-ccid/publications/61>]



[Source: <https://www.capetownetc.com/news/see-where-cape-town-ranks-in-global-traffic-congestion>]





1.4.1 According to the extract, what is the main economic activity in the central business district (CBD)? (1 x 1) (1)

1.4.2 Refer to the graph showing the businesses in the CBD of Cape Town.

(a) Identify the business sector with the highest number of businesses. (1 x 1) (1)

(b) State the number of businesses in this business sector (answer to QUESTION 1.4.2(a)). (1 x 1) (1)

(c) Give ONE economic reason why this business sector is still located in the central business district (CBD). (1 x 2) (2)

(d) Why is banking and finance compatible with most of the other businesses in the central business district (CBD)? (1 x 2) (2)

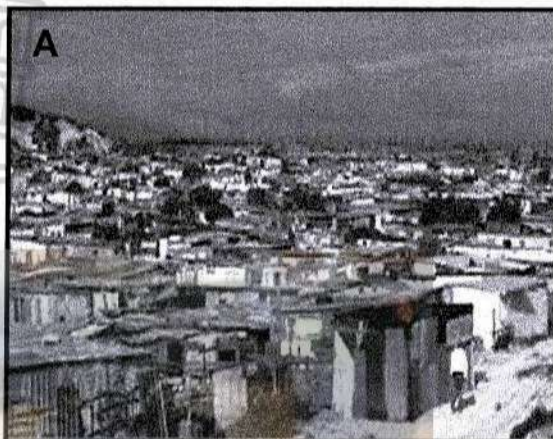
1.4.3 (a) Refer to the photograph. Explain why the urban issue depicted in the photograph will cause businesses to relocate outside of the central business district (CBD). (2 x 2) (4)

(b) Suggest strategies that the municipality of Cape Town can introduce to reduce the urban issue depicted in the photograph. (2 x 2) (4)

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1.5 Refer to the photographs and extract below on the lack of basic services in an informal settlement.



'Service delivery' is a common phrase in South Africa's informal settlements. It is used to describe the distribution of basic services like housing, potable (piped) water, electricity and sanitation that people depend on. Unfortunately, rapid urbanisation has affected the government's delivery and the upkeep of these basic services. It is unreliable, greatly inconveniencing or endangering whole communities. In response, the number of protests demanding better service delivery has increased in recent years.

Lately, residents in the informal settlement of Duncan Village protested against inadequate housing, sanitation, electricity and waste removal. These protests turned violent and included setting fires, destruction of buildings, road blockades and confrontations with police.

[Adapted from

<https://www.google.com/search?q=case+study+in+south+africa+of+service+delivery>]

- 1.5.1 Identify ONE characteristic of the informal houses depicted in photograph A. (1 x 1) (1)
- 1.5.2 Give ONE economic reason why so many informal houses develop in urban areas. (1 x 1) (1)
- 1.5.3 Refer to the extract. State ONE basic service (besides formal housing) that people lack in informal settlements. (1 x 1) (1)
- 1.5.4 Explain why local governments in urban settlements struggle to provide basic services like formal housing to residents. (2 x 2) (4)
- 1.5.5 (a) Refer to photograph B. Why do residents like those in Duncan Village turn to violent protests due to a lack of service delivery? (2 x 2) (4)
- (b) Explain the negative economic impact of these violent protests on urban communities. (2 x 2) (4)

[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 The economic activity depicted in the photograph below occurs in the ... sector.



[Source: <https://www.google.com/search?q=Sugarcane+farming&client>]

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

2.1.2 ... is an example of an economic activity in the tertiary sector.

- A Fishing
- B Construction
- C Transport
- D Forestry





2.1.3

The photograph below depicts an activity associated with the ... sector.



[Source: <https://www.diabetes.ie/research/what-is-research>]

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

2.1.4

A ... percentage of the adult population in developed countries is involved in the tertiary sector which provides the largest contribution to the ...

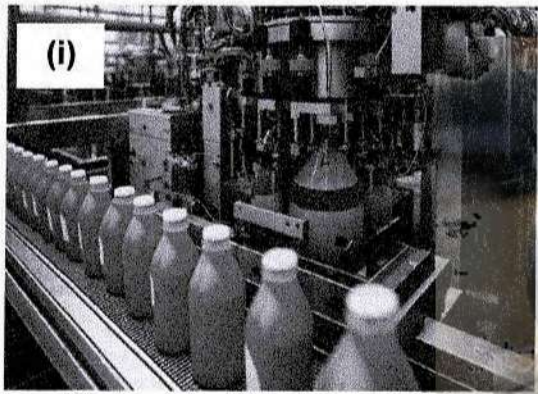
- (i) large
- (ii) small
- (iii) gross domestic product
- (iv) balance of trade

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



2.1.5 Photographs ... and ... below represent economic activities in the secondary sector.

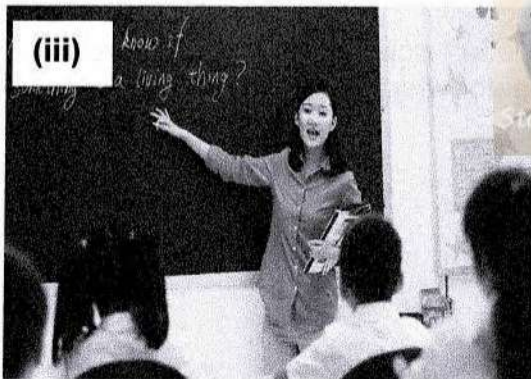
- A (i) and (iii)
- B (i) and (iv)
- C (ii) and (iii)
- D (ii) and (iv)



[Source: <https://www.economicshelp.org/blog/112436/concepts/sectors>]



[Source: [economy/https://www.alamy.com/](https://www.alamy.com/economy/)]



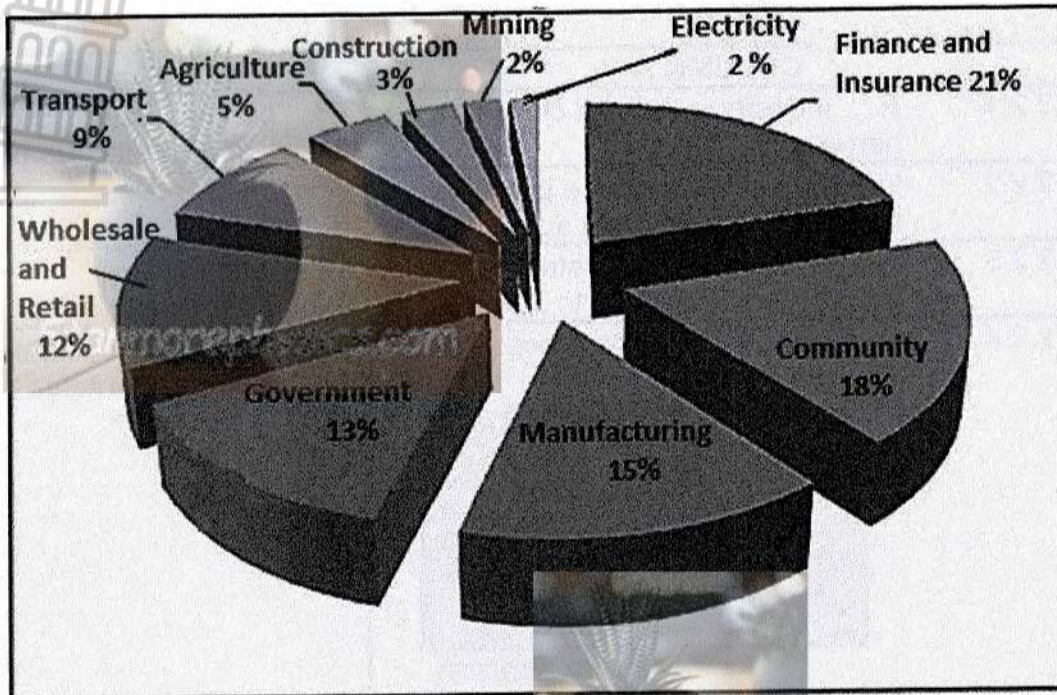
[Source: <https://www.economicshelp12436/concept>]



[Source: <https://www.google.com/letsbuild.com>]



Refer to the pie chart below, based on the contributions made by different activities to the economy of South Africa, to answer QUESTIONS 2.1.6 to 2.1.8.



[Source: <https://www.researchgate.net/figure/Structure-of-the-South-African-economy>]

2.1.6 ... contributes the largest percentage to the economy of South Africa.

- A Electricity
- B Finance and insurance
- C Community
- D Manufacturing

2.1.7 The secondary sector contributes ... % to the economy of South Africa.

- A 13
- B 15
- C 18
- D 21



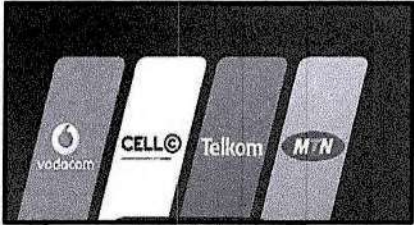
2.1.8 ... contributes the smallest percentage to the tertiary sector.

- A Government
- B Electricity
- C Construction
- D Finance and insurance

(8 x 1) (8)



2.2 Complete the statements in COLUMN A with the options in COLUMN B. Write only the letter (Y or Z) next to the question numbers (2.2.1 to 2.2.7) in the ANSWER BOOK, e.g. 2.2.8 Y.

| COLUMN A   |  | COLUMN B |                         |
|--|--|----------|-------------------------|
| 2.2.1  | A ... industry is located close to a harbour.                                  | Y        | break-of-bulk           |
|  |  | Z        | raw-material orientated |
| 2.2.2  | Light industries produce products that are generally ... in size.              | Y        | small                   |
|  |  | Z        | large                   |
| 2.2.3  | The location of ... industries is not determined by access to markets.         | Y        | ubiquitous              |
|  |  | Z        | footloose               |
| 2.2.4  | The ... industry below processes dairy products.                               | Y        | raw-material orientated |
|  |  | Z        | market-orientated       |
|  <p>[Source: <a href="https://www.alamy.com/a-farm">economy/https://www.alamy.com/a-farm</a>]</p>   |  |          |                         |
| 2.2.5  | The ... industry causes large amounts of air pollution.                        | Y        | heavy                   |
|  |  | Z        | light                   |
|  <p>[Source: <a href="https://www.alamy.com/a-farm">economy/https://www.alamy.com/a-farm</a>]</p> |  |          |                         |
| 2.2.6  | Sugar mills (industry) are generally located on sugar cane farms to reduce ... | Y        | transport costs         |
|  |  | Z        | labour costs            |
| 2.2.7  | ... industries below provide a service and are found everywhere.               | Y        | Ubiquitous              |
|  |  | Z        | Footloose               |
|  <p>[Source: <a href="https://www.alamy.com/a-farm">economy/https://www.alamy.com/a-farm</a>]</p> |  |          |                         |

(7 x 1) (7)



2.3 Refer to the infographic below based on gold mining in South Africa.

| GOLD PRODUCTION |              |              |                           |
|-----------------|--------------|--------------|---------------------------|
| PROVINCE        | RESERVES     | TOTAL OUTPUT | YEARS LEFT OF GOLD OUTPUT |
| Free State      | 3,37         | 0,55         | 6                         |
| Gauteng         | 56,88        | 1,56         | 37                        |
| Mpumalanga      | 3,31         | 0,20         | 16                        |
| North West      | 4,53         | 0,25         | 18                        |
| <b>Total</b>    | <b>68,09</b> | <b>2,56</b>  |                           |

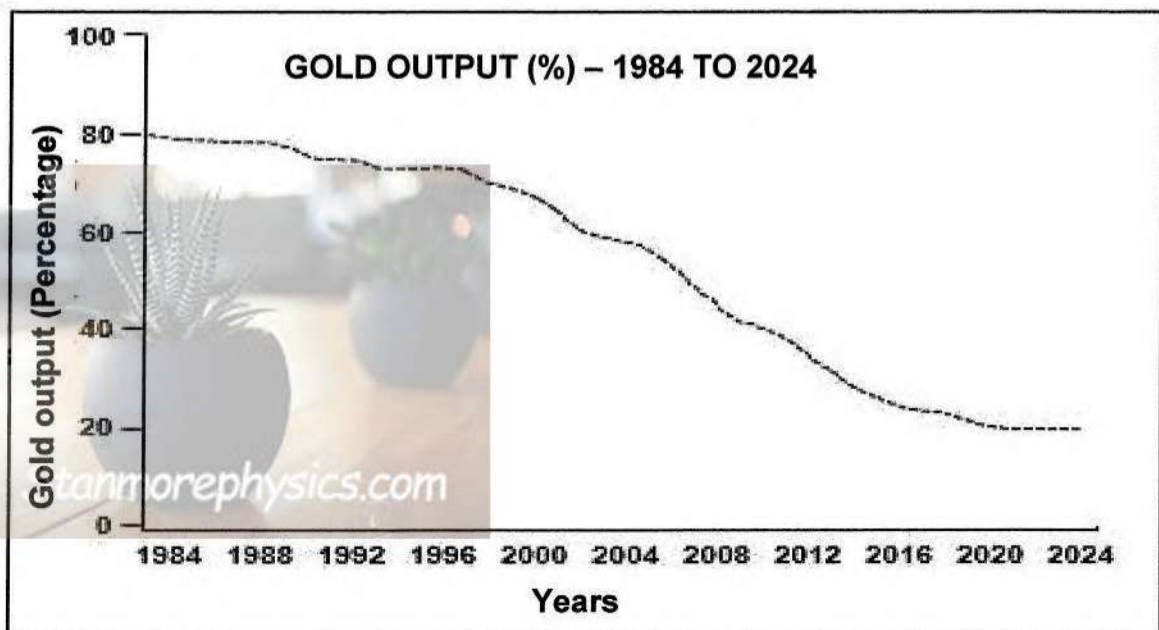
[Adapted from PwC's South Africa Mine 2023 Report]

**GOLD MINING OUTPUT (PRODUCTION) IN SOUTH AFRICA HAS DECLINED**

Gold mining output (production) significantly affected South Africa's total mining output (production) in 2024, having declined by over 80% over the past four decades. The sector employs over 477 000 South Africans and pays the government over R140 billion in tax annually.

One of the reasons for the declining output (production) can be attributed to it being a non-renewable mineral. The Free State has five gold mines in operation. Another contributing factor has been the disinvestment (withdrawal of funding) of foreign owners in our gold mines. Various mine disasters and labour issues have contributed to the closure of gold mines. This will likely have a significant economic impact on the affected regions, such as the Free State, Mpumalanga and North West.

[Adapted from <https://dailyinvestor.com/mining//gold-mining-has-lost-its-shine-in-south-africa>]



[Adapted from Minerals Council of South Africa]

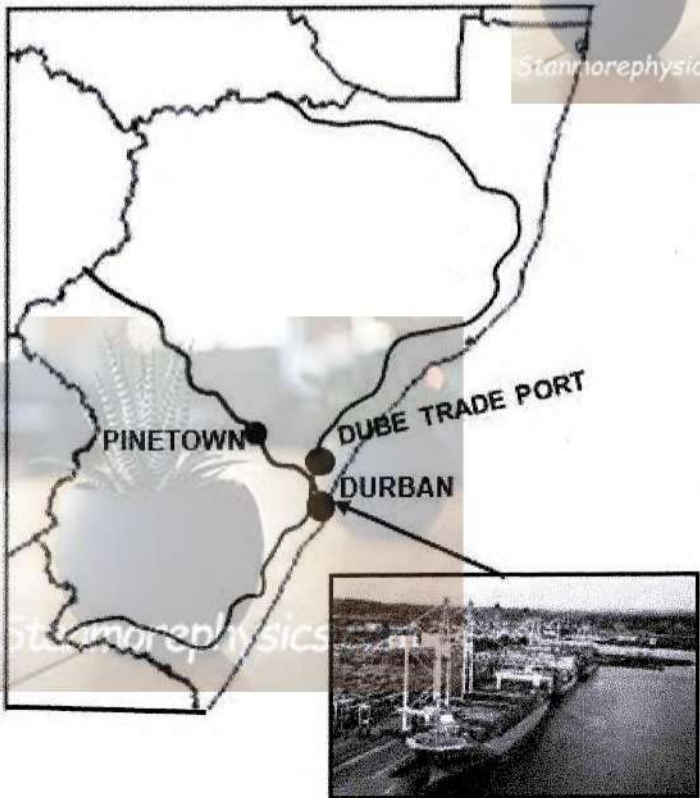




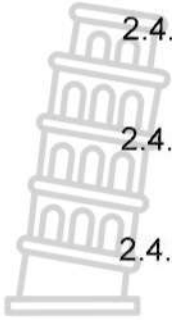
- 2.3.1 Which province has the least years of gold output (production) left? (1 x 1) (1)
- 2.3.2 Why, according to the extract, is gold output (production) in decline? (1 x 1) (1)
- 2.3.3 Determine the gold output (production) percentage decline from 1984 to 2024 as depicted in the graph. (1 x 1) (1)
- 2.3.4 Give TWO examples of natural disasters that contributed to the decline of gold mines. (2 x 1) (2)
- 2.3.5 What negative impact does the depletion of the gold output (production) have on South Africa's economy? (2 x 2) (4)
- 2.3.6 Explain how labour issues have caused foreign owners to disinvest in South African gold mines. (3 x 2) (6)



2.4 Refer to the infographic below on the Durban-Pinetown core industrial region and the Dube Trade Port industrial development zone (IDZ).

|  |  |
|--|--|
| <p align="center"><b>R1 BILLION INVESTMENT BY TOYOTA TO IMPROVE AUTOMOTIVE INDUSTRY IN DURBAN-PINETOWN</b></p> <p>Automotive assembly is becoming the main industry in the Durban-Pinetown core industrial region. The aim is to try to secure high-value and job-intensive manufacturing in KwaZulu-Natal (KZN). The core industrial region has a very strong footprint in electronics, high-value food processing and packaging and textiles.</p> <p>The Durban-Pinetown core industrial region is located on flat land and there is space for growth and expansion. The international automotive producer Toyota has located there. The Durban harbour is a world-class facility that favours the automotive industry.</p> <p>The automotive manufacturing sector contributes about R21 billion to the local economy per annum and employs approximately 20 000 people.</p> <p align="right">[Adapted from <a href="https://iol.co.za/1bn-investment-to-bolster-auto-industry-in-ethekwini">https://iol.co.za/1bn-investment-to-bolster-auto-industry-in-ethekwini</a>]</p> |  |
| <p align="center"><b>LOCATION OF DURBAN-PINETOWN CORE INDUSTRIAL REGION</b></p>  <p align="center">[Source: Examiner's own sketch/<br/> <a href="http://www.google.com/search?different+transport+modes">www.google.com/search?different+transport+modes</a>]</p>   | <p align="center"><b>FACT FILE: DUBE TRADE PORT</b></p> <ul style="list-style-type: none"> <li>• Industrial development zone (IDZ) that offers integrated logistics and manufacturing infrastructure</li> <li>• Strategically positioned at the intersection of local and global transport routes</li> <li>• Export and import facility covering 38 km<sup>2</sup></li> <li>• Attracts local and foreign investment</li> </ul> <p align="right">[Adapted from <a href="https://iol.co.za/daily news">https://iol.co.za/daily news</a>]</p> |





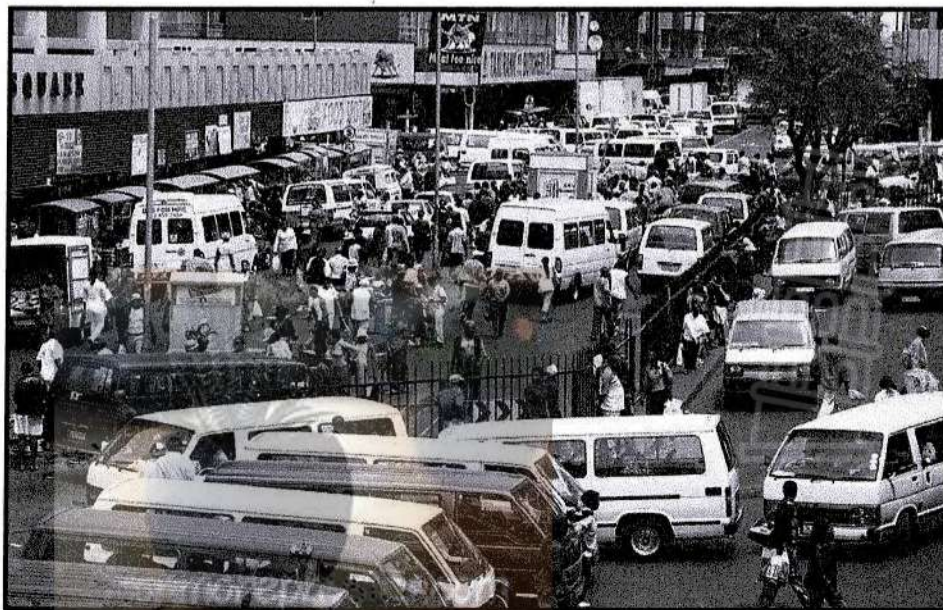
- 2.4.1 Name the province in which the Durban-Pinetown core industrial region is located. (1 x 1) (1)
- 2.4.2 Quote ONE factor from the extract that influenced the location of the Durban-Pinetown core industrial region. (1 x 1) (1)
- 2.4.3 According to the extract, what is the main industrial activity in the Durban-Pinetown core industrial region? (1 x 1) (1)
- 2.4.4 How will the R1 billion investment in this main industrial activity (answer to QUESTION 2.4.3) have a positive social impact on the Durban-Pinetown core industrial region? (1 x 2) (2)
- 2.4.5 Why is the harbour, shown in the photograph, important to the development of this core industrial region? (1 x 2) (2)
- 2.4.6 In a paragraph of approximately EIGHT lines, explain the contribution of the Dube Trade Port to the diversification (increased variety) of the manufacturing industries of the province. (4 x 2) (8)



2.5 Refer to the infographic below on the informal sector.

| INFORMAL SECTOR OF SOUTH AFRICA   |   | IMPACT OF MINIBUS TAXIS ON THE INFORMAL SECTOR  |
|-----------------------------------|---|---|
| ACTIVITIES IN THE INFORMAL SECTOR | APPROXIMATE ANNUAL INCOME RANKING GENERATED IN SOUTH AFRICA IN 2025 |   |
| Spaza shops                       | R190 billion  | <p>There are more than 200 000 minibus taxis in South Africa, transporting more than 15 million commuters each day. It is estimated to generate annual profits of at least R90 billion. Minibus taxis are the most convenient source of public transport, accounting for 65%, followed by buses at 20% and trains at 15%.</p> <p>Minibus taxis have a direct and indirect impact on the informal sector. Minibus taxis have provided employment to about 600 000 people. Minibus taxi drivers, queue marshals, who earn R300 a week, car washers and informal traders are some of those people employed, directly and indirectly, by minibus taxi owners.</p> |
| Fast-food                         | R90 billion   |   |
| Minibus taxis                     | R90 billion   |   |
| Savings/Stokvels                  | R44 billion   |   |
| Spaza shop rentals                | R25 billion   |   |
| Backroom rentals                  | R20 billion   |   |
| Beauty shops                      | R10 billion   |   |

[Source: <https://www.statssa.gov.za/?p=18255>]



[Source: <https://ebe.uct.ac.za/articles/-minibus-taxis-crucial-public-transport>]





- 2.5.1 What is the *informal sector*? (1 x 2) (2)
- 2.5.2 Give the approximate annual income that minibus taxis generated in 2025, as depicted in the table. (1 x 1) (1)
- 2.5.3 Why are fast-food outlets and minibus taxis economically compatible? (1 x 2) (2)
- 2.5.4 Give ONE reason why minibus taxis are more convenient for commuters than buses and trains. (1 x 2) (2)
- 2.5.5 Describe the negative conditions, shown in the photograph, that minibus taxi drivers have to operate under. (2 x 2) (4)
- 2.5.6 Explain the challenges that government experiences when trying to improve the negative conditions faced by minibus taxi owners and commuters. (2 x 2) (4)

[60]



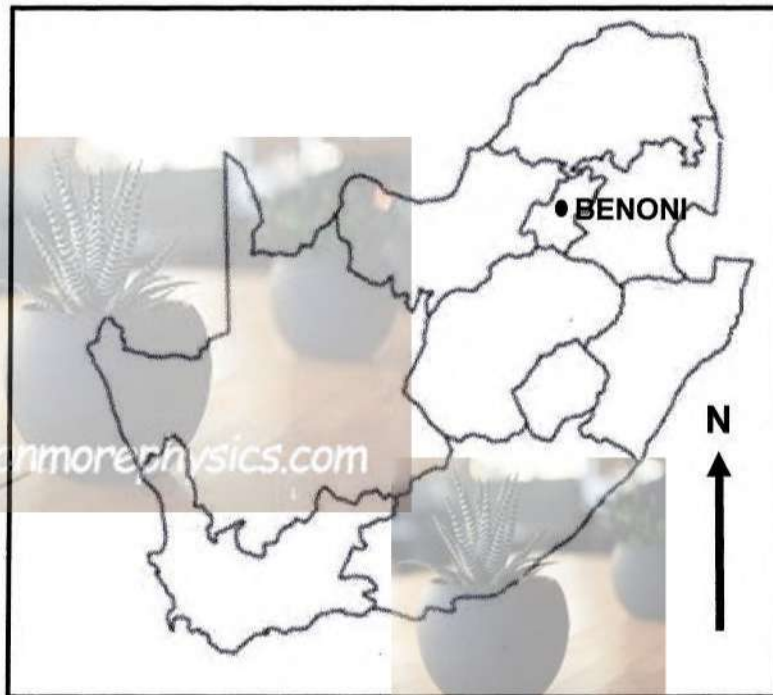
**TOTAL SECTION A: 120**



**SECTION B**

**QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES**

**GENERAL INFORMATION ON BENONI**



**Coordinates: 26°07'S; 28°17'E**

Benoni is situated on the East Rand and lies approximately 26 km from Johannesburg. Benoni has a mixture of suburban areas and semi-rural land in the north. The commercial business district is centrally located and with industrial areas to the south.

The railway line was officially opened in 1912. Benoni is now part of the industrial complex of the Witwatersrand and is known for its iron and steel works. The diggings refer to the old gold mines as formal gold mining no longer takes place.

[Adapted from [https://en.wikipedia.org/wiki/Benoni, South Africa#Geography](https://en.wikipedia.org/wiki/Benoni,_South_Africa#Geography)]

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

**ENGLISH**

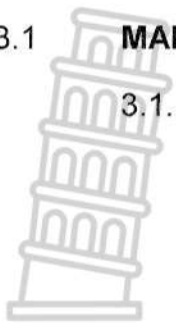
Diggings  
Extension  
Golf course  
Lake  
Opencast mine

**AFRIKAANS**

Uitgrawings  
Uitbreiding  
Gholfbaan  
Meer  
Oopgroefmyn



3.1 MAP SKILLS AND CALCULATIONS



3.1.1 Benoni is located approximately ... km from the city of Johannesburg.

- A 9
- B 26
- C 39
- D 60

(1 x 1) (1)

3.1.2 Refer to the index to sheets below. The reference number of the map to the south-west of the topographical map 2628AB is ...

|        |               |        |
|--------|---------------|--------|
| 2528CC | 2528CD        | 2528DC |
| 2628AA | <b>2628AB</b> | 2628BA |
| 2628AC | 2628AD        | 2628BC |

- A 2628AA.
- B 2628BC.
- C 2628AC.
- D 2628DC.

(1 x 1) (1)

Refer to **F** in block **C5** on the topographical map.

3.1.3 Calculate the area of **F** in square metres (m<sup>2</sup>).

Use the following information:

Length = 0,9 cm  
Breadth = 0,4 cm

Formula: **Area = Length (L) x Breadth (B)** (3 x 1) (3)

Refer to the orthophoto map.

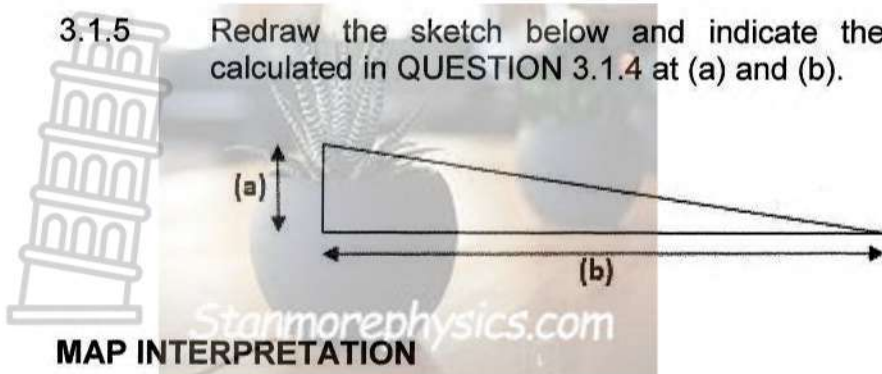
3.1.4 Calculate the average gradient between **6** in block **A3** and **7** in block **C3**, using the following information:

Vertical interval = 12 m  
Orthophoto map distance = 11 cm

Formula: **Average gradient =  $\frac{\text{Vertical Interval (VI)}}{\text{Horizontal Equivalent (HE)}}$**  (3 x 1) (3)



3.1.5 Redraw the sketch below and indicate the answer that you calculated in QUESTION 3.1.4 at (a) and (b).



(2 x 1) (2)

3.2 **MAP INTERPRETATION**

Refer to **G** in block **D4** on the topographical map. The photograph below represents ONE of the industries in this area.



[Source: <https://www.google.co.za/search?q=Projects+Pty+LTD%2C+2C+Crystal+Park%2C+Benoni>]

3.2.1 The buildings at **G** in block **D4** represent (light/heavy) industries. (1 x 1) (1)

3.2.2 Explain how the transport infrastructure evident in block **D4** favoured the location of these industries (your answer to QUESTION 3.2.1). (1 x 2) (2)

Refer to area **H** in block **E1** on the topographical map.

3.2.3 Give evidence from block **E1** on the topographical map to justify why area **H** is a high-income residential area. (2 x 1) (2)

3.2.4 Identify the street pattern that dominates this residential area. (1 x 1) (1)

3.2.5 How did the Westdene Pan contribute to the formation of the street pattern identified in QUESTION 3.2.4? (1 x 2) (2)

Refer to the orthophoto map.

3.2.6 Identify feature **8** in blocks **D1** and **E1**. (1 x 1) (1)

3.2.7 Name the economic sector associated with feature **8** (your answer to QUESTION 3.2.6). (1 x 1) (1)

3.2.8 How is feature **8** a challenge to the surrounding communities? (1 x 2) (2)



3.3 GEOGRAPHICAL INFORMATION SYSTEMS (GIS)



Refer to the topographical map and the orthophoto map. Match the information in COLUMN A with the information in COLUMN B. Write only the number next to the letter in the ANSWER BOOK, e.g. (c) 4.

| COLUMN A              | COLUMN B       |
|-----------------------|----------------|
| (a) Topographical map | 1. raster data |
| (b) Orthophoto map    | 2. vector data |

3.3.1

(2 x 1) (2)

3.3.2 The orthophoto map has a high resolution because the pixels are ... and the features are ...

- (i) small
- (ii) large
- (iii) easier to identify
- (iv) more difficult to identify

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



(1 x 1) (1)

Refer to the topographical map.

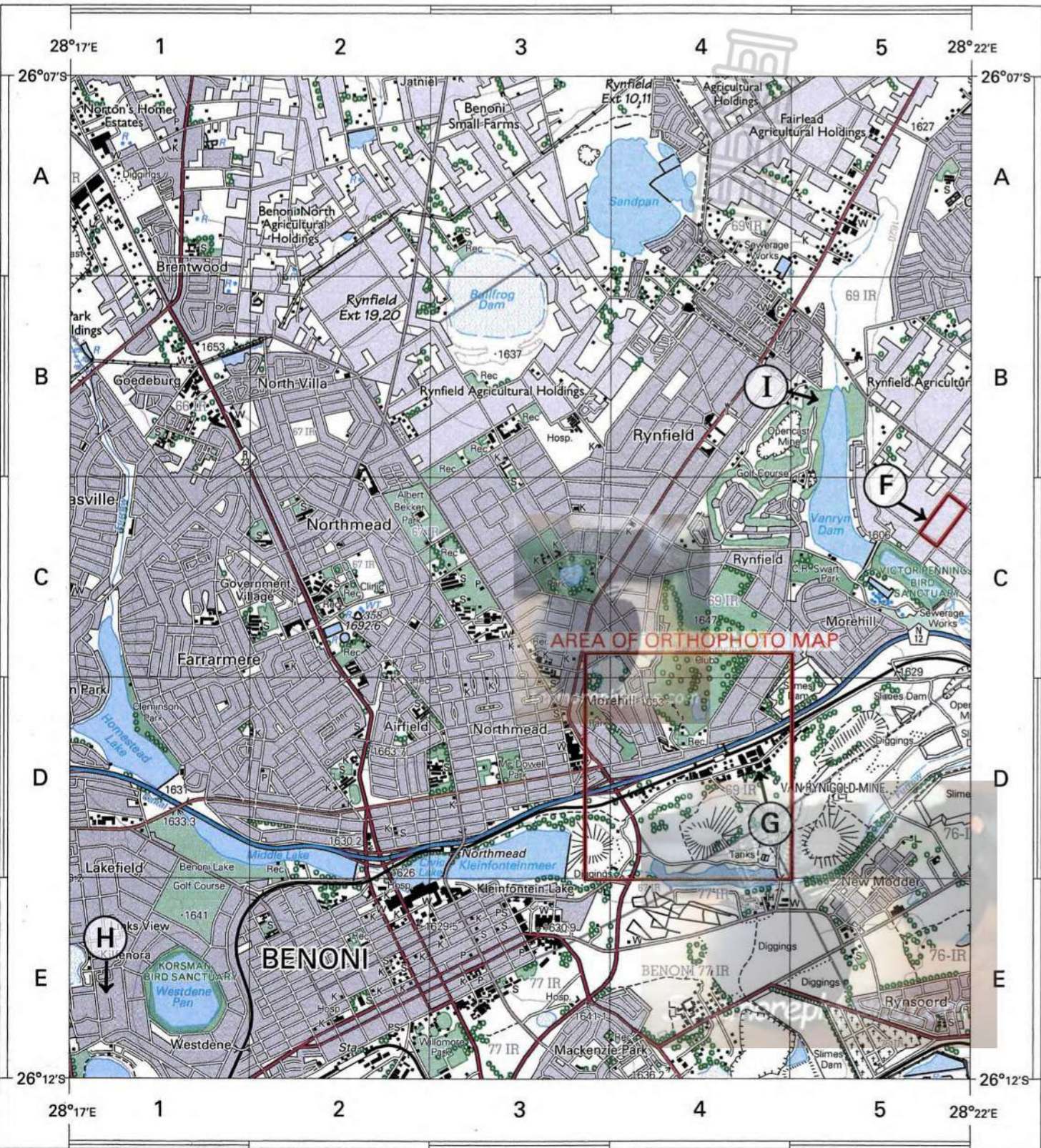
3.3.3 Define the term *buffering*. (1 x 2) (2)

3.3.4 Identify the physical (natural) feature that was used to buffer the Vanrym Dam at I in block B5. (1 x 1) (1)

3.3.5 How did buffering of the Vanrym Dam have a positive human impact on the surrounding area? (1 x 2) (2)

**TOTAL SECTION B: 30**  
**GRAND TOTAL: 150**





Magnetic declination 18°53' West of True North (October 2013).  
 Annual change 6' Westwards (Oct. 2013 - Sept. 2014).

CONTOUR INTERVAL 20 METRES / KONTOERTUSSENRUIMTE 20 METER

REFERENCE

|                                  |                                   |                             |  |
|----------------------------------|-----------------------------------|-----------------------------|--|
| National Freeway; National Route | International Boundary and Beacon | Fence; Wall                 | Windpump; Monument                     |
| Provincial Road                  | Provincial Boundary               | Protected Area              | Communication Tower                    |
| Primary Road; Bench Mark         | Perennial River                   | Mine Dump; Excavation       | Trigonometrical Station; Marine Beacon |
| Road; Bridge                     | Perennial Water                   | Lighthouse and Marine Light | Cemetery; Grave                        |
| Footpath and Hiking Trail        | Non-perennial River               | Cemetery; Grave             | Erosion; Sand                          |
| Station or Siding                | Non-Perennial Water               | Cemetery; Grave             | Woodland                               |
| Railway; Tunnel                  | Dry Water Course                  | Cemetery; Grave             | Cultivated Land                        |
| Level Crossing                   | Dry Pan                           | Cemetery; Grave             | Orchard or Vineyard                    |
| Power Line                       | Marsh and Vlei                    | Cemetery; Grave             |  |
| Urban Area (High, Low Density)   | Pipeline (above ground)           | Cemetery; Grave             |  |

CONTOUR INTERVAL 5 METRES - KONTOERTUSSENRUIMTE 5 METER

VERKLARING

|                                    |                               |                           |                                    |
|------------------------------------|-------------------------------|---------------------------|------------------------------------|
| Nasionale Deurpad; Nasionale Roete | Internasionale Grens en Baken | Draadheining; Muur        | Windpomp; Monument                 |
| Hoofpad                            | Provinsiale Grens             | Bewarings Gebied          | Kommunikasietoring                 |
| Sekondêre Pad; Hoogtemerk          | Standhoudende Rivier          | Mynhoop; Uitgrawing       | Peilbaken; Seevaartbaken           |
| Ander Pad; Brug                    | Standhoudende Water           | Vuurtoring en Seevaartlig | Begraafplaas; Graf                 |
| Dowwe Pad en Voetslaanpad          | Nie-standhoudende Rivier      | Nie-standhoudende Water   | Droë Loop                          |
| Spoorweg; Stasie of Sylyn          | Droë Pan                      | Moeras en Vlei            | Beboude Gebied (Hoë, Lae Digtheid) |
| Ander Spoorweg; Tonnel             | Opvulling; Deurgrawing        | Pylyyn (bo die grond)     |                                    |
| Kraglyyn                           |                               |                           |                                    |
| Beboude Gebied (Hoë, Lae Digtheid) |                               |                           |                                    |