KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

PROVINCIAL STANDARDISED ASSESSMENT

GRADE 12

GEOGRAPHY PAPER 2

PREPARATORY EXAMINATION

SEPTEMBER 2026

MARKS: 150

TIME: 3 hours

This question paper consists of 17 pages.

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INSTRUCTIONS AND INFORMATION

1. This question paper consists of TWO sections.

   SECTION A
   QUESTION 1: RURAL AND URBAN SETTLEMENT (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. 1020 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

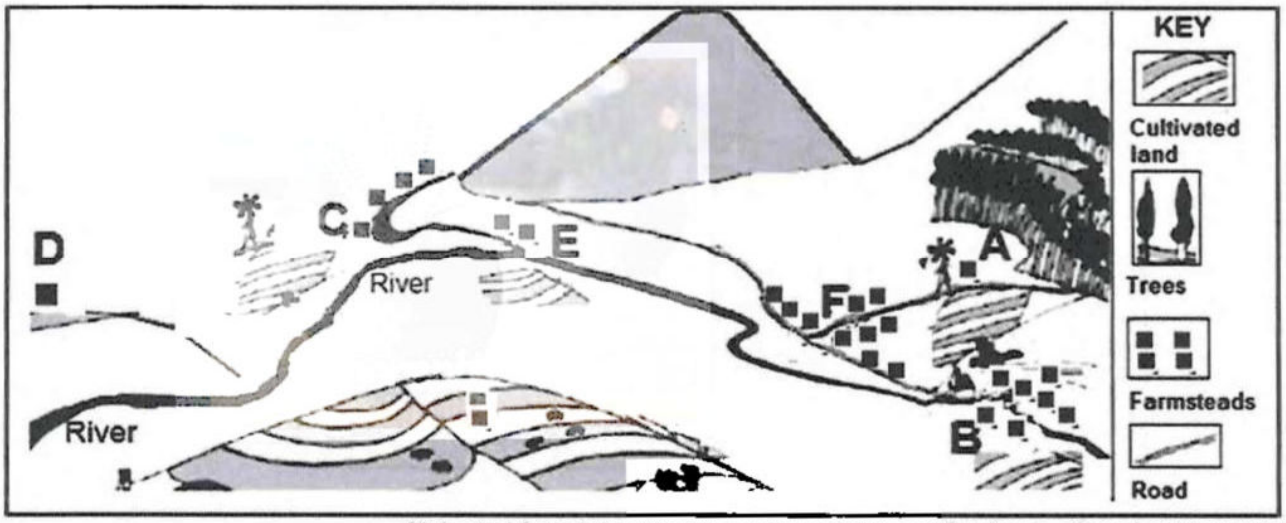
14. A 1 : 50 000 topographical map 2529CC eMALAHLENI (WITBANK) and a 1 : 10 000 orthophoto map 2529CC 15 eMALAHLENI (WITBANK) are provided.
15. The area demarcated in RED/BLACK on the topographical map represents the area covered by the orthophoto map.
16. Show ALL calculations. Marks will be allocated for steps in calculations.
17. You must hand in the topographical and orthophoto map to the invigilator at the end of this examination.

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SECTION A: RURAL AND URBAN SETTLEMENT AND ECONOMIC GEOGRAPHY OF AFRICA

QUESTION 1: RURAL AND URBAN SETTLEMENT

1.1 Refer to the sketch below showing a type of a settlement. Select an option from the brackets to make the statement correct.



[Adapted from https://www.google.com/search?q=types of rural settlements]

1.1.1 **D** is a dry point settlement as water is (**scar**ce/**plenti**ful).

1.1.2 **C** is (linear/T-shaped) settlement **as it develo**ped along the river.

1.1.3 An economic disadvantage for living in settlement **F** is (competition for jobs/high land prices).

1.1.4 People living in settlement (**D/F**) would have to share profit.

1.1.5 Settlement (**D/E**) would allow use of mechanisation.

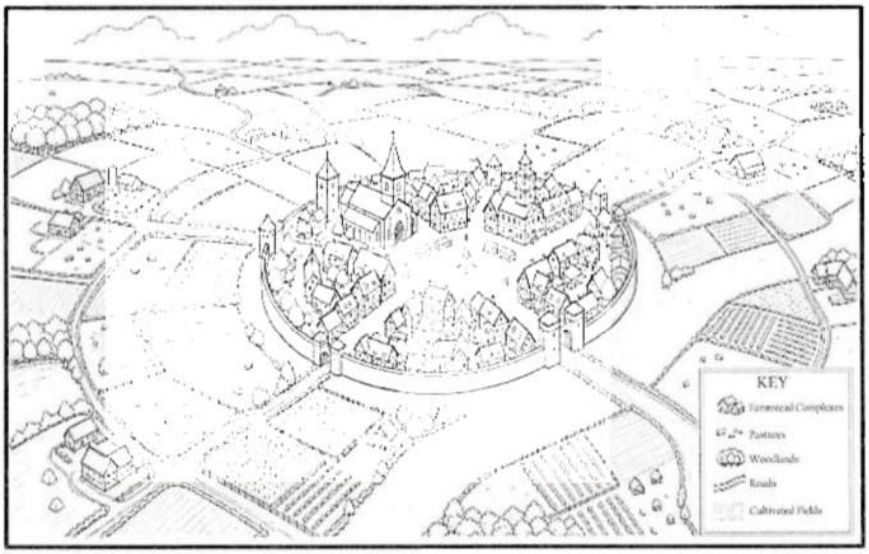
1.1.6 Settlement pattern (**A/B**) is associated with large commercial farms.

1.1.7 The shape of settlement **F** is (linear/T-shaped).

(7 x 1) (7)

1.2 Various options are provided as possible answers to the following statements. Choose the correct answer and write only letter (A-D) next to the question Numbers (1.2.1 to 1.2.8) in the ANSWER BOOK, e.g. 1.2.9 D

1.2.1 The photograph below indicates a central place **town because it** is…



A. very big in size
B. surrounded by farmland
C. a nucleated settlement pattern
D. an isolated settlement pattern

1.2.2 The higher the rate of …, the higher **the rate** of urban expansion.

A. urban sprawl
B. urban growth
C. urban blight
D. urban rate

1.2.3 The CBD is highly accessible because it is…

A. centrally located and has many heavy industries.
B. located on the outskirts and has less cars.
C. centrally located and where roads converge.
D. located on the outskirts and has many cars.

1.2.4 The transition zone is characterised by…

(i) mixture of urban functions.
(ii) mixture of rural and urban functions.
(iii) highest land values and less crime rate.
(iv) high land values and social ills.

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

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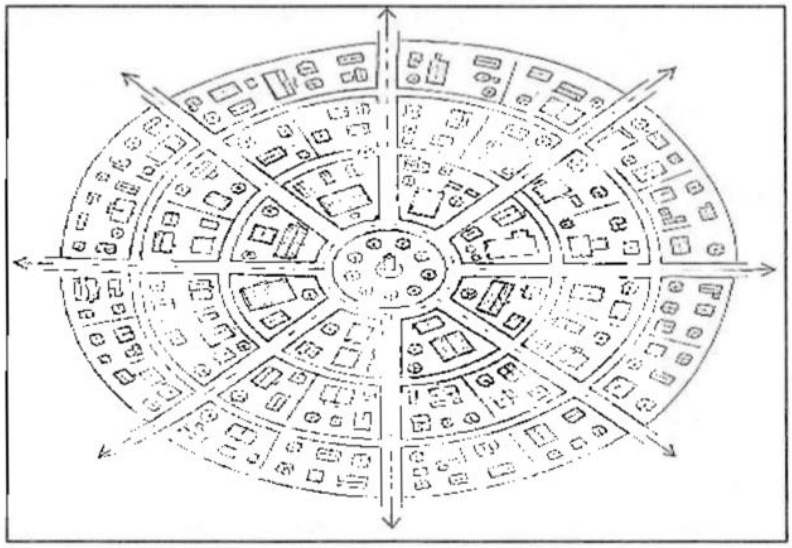
1.2.5 The land use zone that occupies the greatest percentage of land in an urban settlement is …

A. CBD
B. transition zone
C. industrial zone
D. residential zone

1.2.6 This land use zone is highly incompatible with the CBD.

A. Transition zone.
B. Heavy industrial zone.
C. Residential zone.
D. Rural urban fringe.

1.2.7 The type of street pattern shown below is…



A. cob web
B. grid iron
C. radial
D. concentric

1.2.8 Advantages of counter-urbanisation for urban areas are decreased…

(i) pollution
(ii) land value
(iii) aesthetic appeal
(iv) traffic congestion

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

(8 x 1) (8)

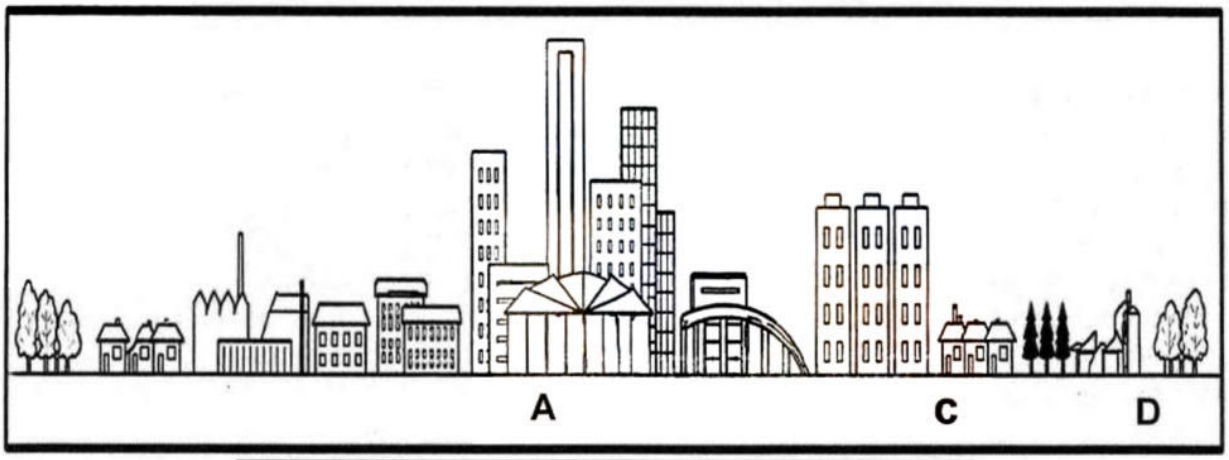
1.3. The photograph below shows a rural settlement.

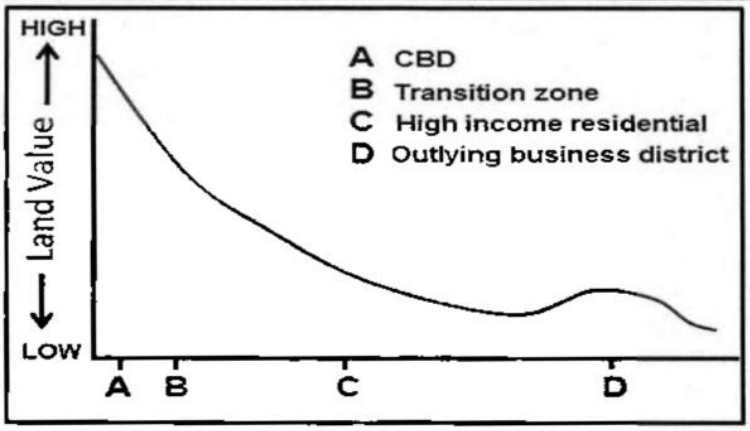


[Source:https://c8.alamy.com/comp/P2DYJ7/drakensberg-landscape-south-africa-P2DYJ7.jpg]

1.3.1	Define the concept *site*.	(1 x 2)	(2)
1.3.2	Identify the physical factor that has influenced the site of this settlement.	(1 x 2)	(2)
1.3.3	The movement of people from this settlement to urban areas is called (rural-urban migration/rural depopulation)	(1 x 1)	(1)
1.3.4	Discuss the social impact of people moving away from areas such as the one in the photograph to urban areas.	(2 x 2)	(4)
1.3.5	Explain how the local municipality can assist to reduce challenges that force people to leave rural to urban areas.	(3 x 2)	(6)

1.4. Refer to the sketch and a graph below.





[Adapted from: Businesstech.co.za]

1.4.1 Define the concept *urban profile*. (1 x 2) (2)

1.4.2 State ONE characteristic of the CBD evident (shown) in the sketch. (1 x 1) (1)

1.4.3 How has the land value influenced building density in the CBD? (1 x 2) (2)

1.4.4 How can the increase in the number of neighbourhood shopping centres have a positive impact on the CBD? (2 x 2) (4)

1.4.5 Explain the factors that influenced the location of land use zones **A**, **C**, and **D**. (3 x 2) (6)

1.5 Refer to the infographic below on informal settlement.

By Ivan Turock: Executive Director, Human Sciences Research Council

One in five residents of South African cities live in a shack (jondol), most of which are found in densely clustered informal settlements. These mostly develop on vacant land, often close to water sources which become polluted due to human activities. These areas present the country with some of its greatest challenges. Shack dwellers are exposed to crime, social injustice, hardship, insecurity and many other hazards due to living in unhygienic and overcrowded conditions on mostly un-serviced and very often unsuitable land. They believe they deserve better, which adds to their growing discontent (unhappiness) leading to many violent protests in recent years.





[Adapted from www.hsrc.co.za]

1.5.1	What is an *informal settlement*?	(1 x 2)	(2)
1.5.2	State ONE factor, mentioned in the infographic that may have a negative impact on the health of residents in informal settlements.	(1 x 1)	(1)
1.5.3	Provide TWO economic reasons for an increase in informal settlements in South Africa in recent years.	(2 x 2)	(4)
1.5.4	In a paragraph of approximately EIGHT lines, suggest sustainable strategies that local municipality could implement to reduce the growth of informal settlements.	(4 x 2)	(8)

[60]

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QUESTION 2: ECONOMIC GEOGRAPHY

2.1. Match the statements in COLUMN A with the options in COLUMN B. Write only Y or Z next to the question numbers (2.1.1. to 2.1.8), e.g., 2.1.9 Y

	COLUMN A		COLUMN B
2.1.1	Extraction of raw material from the riches of nature.	Y Z	Secondary sector Primary sector
2.1.2	Value of imports exceeds the value of exports	Y Z	Positive balance of trade Negative balance of trade
2.1.3	The total value of goods and services produced by permanent inhabitants of a country	Y Z	GDP GNP
2.1.4	Access to healthy food.	Y Z	Food security Food insecurity
2.1.5	Movement of industries out of core areas.	Y Z	Industrial decentralisation Industrial agglomeration
2.1.6	Industries whose location is not influenced by any specific factors.	Y Z	Footloose Ubiquitous
2.1.7	Industrial development area that promotes exports, close to major transport routes with international links.	Y Z	SDI IDZ
2.1.8	Unregistered businesses that do not pay income tax.	Y Z	Informal sector Formal sector

(8 x 1) (8)

2.2. Various options are provided as possible answers to the following statements. Choose the answer and write only the letter (A–D) next to the question numbers (2.2.1 to 2.2.7) in the ANSWER BOOK, e.g., 2.2.8 D.

2.2.1 South Africa's gross domestic product (GDP) enables one to compare …

A. employment rates.
B. economies of other countries.
C. imports and exports.
D. standard of living.

2.2.2 Examples of value-added products are…

(i) wine
(ii) maize
(iii) fruit
(iv) sugar

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

2.2.3 Access to … will be an advantage of the Port Elizabeth-Uitenhage core industrial region compared to the Gauteng (PWV) core industrial region.

A. coal
B. airport
C. diamond
D. harbour

2.2.4 … is the main industry located in Gauteng industrial region.

A. Fish canning
B. Sugar refinery
C. Iron and steel
D. Car assembly

2.2.5 The disadvantages of industrial centralisation to the Gauteng (PWV) core industrial region are …

(i) water shortages
(ii) a small labour force
(iii) small market
(iv) air pollution

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

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2.2.6 Physical factor that favours mining in South Africa.

A. Geology
B. Investments
C. Labour
D. good transport infrastructure

2.2.7 Social factor that negatively affects mining in South Africa.

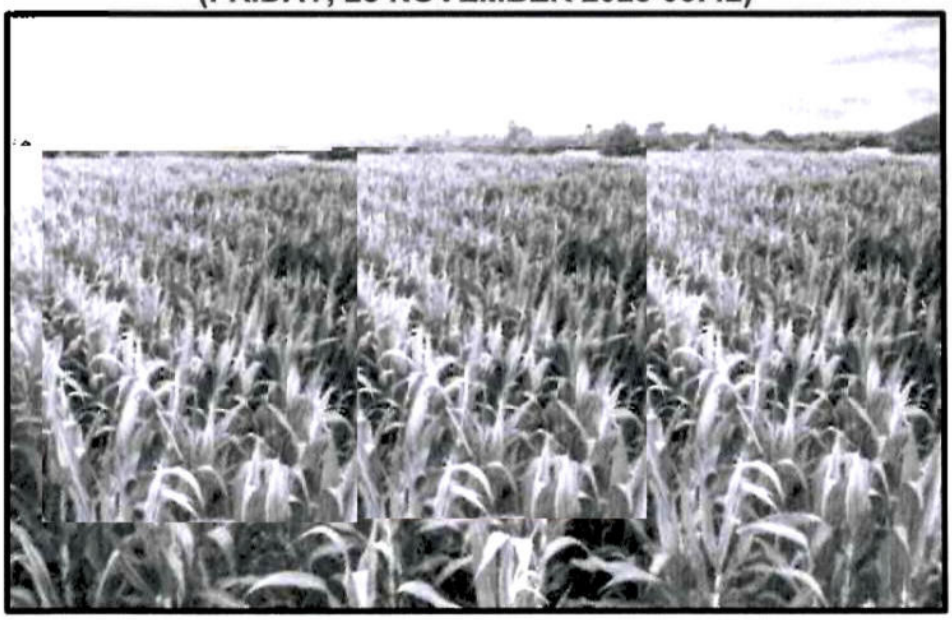
A. Nationalisation of mines
B. Distance to market
C. Geothermal gradient
D. Diseases

(7 x 1) (7)

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2.3. Refer to the article below on maize farming.

SOUTH AFRICA TO ADD 69,000 HECTARES OF MAIZE IN 2025/2026 (FRIDAY, 28 NOVEMBER 2025 06:42)



South Africa, the continent's largest maize producer, plans to maintain its recent production momentum following an improved 2024/2025 season. The Crop Estimates Committee (CEC) said, *"The figures show that producers plan to plant 1.615 million hectares of white maize, which is 0.9% more than the previous season. For yellow maize, the expected area is 1.051 million hectares which is 5.4% compared with the previous season"*. Officials attributed the optimistic forecast to favourable weather conditions. The South African Weather Service said in its late-September seasonal outlook that the country's north-eastern regions should receive warmer temperatures and above-normal rainfall through mid-summer.

[Initial article: Agence Ecofin by Stéphanas Assocle, Adapted by Ange Jason Quenum].

2.3.1	According to the article, how many hectares of land will be used for maize in the 2025/2026 season?	(1 x 1)	(1)
2.3.2	What is the total percentage increase of white and yellow maize area that is projected?	(1 x 2)	(2)
2.3.3	Identify TWO factors mentioned in the extract that would favour the anticipated increase in maize farming.	(2 x 1)	(2)
2.3.4	Why does South Africa have a large domestic (local) market for maize?	(1 x 2)	(2)
2.3.5	In a paragraph of approximately EIGHT lines, discuss the positive impact of the increase in the planted area of white and yellow maize on the South African economy.	(4 x 2)	(8)

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2.4 The photograph below shows the Coega industrial development zone.



[Source: Gettyimages, Allan Baxter]

2.4.1	In which province is the Coega IDZ found?	(1 x 1)	(1)
2.4.2	Give evidence from the photograph which supports that this is a break of bulk point industry.	(1 x 2)	(2)
2.4.3	Mention TWO factors evident (shown) in the photograph that promoted the development of this IDZ.	(2 x 2)	(4)
2.4.4	Explain how the recent increase in fuel prices in South Africa will negatively affect production in the Coega IDZ.	(1 x 2)	(2)
2.4.5	Why would the Coega Industrial Development Zone be an attractive location for investment by overseas companies?	(3 x 2)	(6)

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2.5 Refer to the extract below on Platinum mining.

SOUTH AFRICA IS THE WORLD'S LARGEST PRODUCER OF PLATINUM.

In 2022, South Africa produced 140 tons of platinum, representing 74.3% of the world's total platinum output. 2025 showed a decline in platinum production with South Africa's output falling from 140 tons to 133.28 tons. The platinum sector has faced significant challenges, such as unprecedented (unusually high) rainfall which disrupted mining operations. Also including rising production costs, aging infrastructure, and frequent equipment breakdowns declining productivity. The ongoing energy crisis, regular power cuts and high electricity tariffs, has further strained mining operations.

Despite the current challenges, the platinum group metals (PGM) shows improvement, as companies adapt to earlier disruptions. Long-term growth is supported by significant projects, such as the $1 billion Waterberg Project. which aims to produce 6.905 tons annually starting in 2029. The South African platinum industry remains crucial for global supply, as it holds around 88% of the world's known PGM reserves. This project has an estimated lifespan of 45 to 54 years.

[Adapted from [www.bing.com/search?q=south+africa+platinum+production&form=WNSGPH&qs=SSA&cvid=87ccc9272449431f982f1e39a74ca1ce&pq=platinum+mining+in+South+Africa&cc=ZA&setlang=enZA&nclid=4CC952F19B79168EA95A3DBE311602F1&ts=1784147252187&PC=WSBQUF]

2.5.1 In which year did platinum mining decline? (1 x 1) (1)

2.5.2 Identify TWO causes of the decline of Platinum mining in the extract. (2 x 1) (2)

2.5.3 Mention TWO safety hazards that miners are mostly exposed to. (2 x 2) (4)

2.5.4 The labour force of South Africa's mining sector is generally unstable and affects production negatively. Give ONE reason for this instability. (1 x 2) (2)

2.5.5 Discuss the negative environmental impact of Platinum mining in South Africa. (3 x 2) (6)

[60]

SECTION B

QUESTION 3: GEOGRAPHICAL SKILLS AND TECHINQUES

GENERAL INFORMATION ON eMALAHLENI (WITBANK)



Coordinates: 25°50′S; 29°10′E
eMalahleni (previously known as Witbank) is a city situated on the Highveld of Mpumalanga, South Africa.

eMalahleni is in a coal mining area. Opencast mining is mainly used to extract coal. This type of mining involves digging near the surface to extract coal seams. There are a number power stations, as well as a steel mill nearby which all require coal.

The farmland surrounding eMalahleni is being bought by investors, coal mining companies and real estate developers to accommodate the rapid growth of the city, which is good for local businesses and residents. The region experiences highly polluted air due to the coal mining and power stations.

[Source: https://en.wikipedia.org.witbank]

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

ENGLISH	AFRIKAANS
Cemetery	Bergraafplaas
Diggings	Uitgrawings
Golf course	Gholfbaan
Open-cast mine	Oopgroefmyn
River	Rivier
Subsiding ground	Insakkende grond

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3.1. MAP SKILLS AND CALCULATIONS

Refer to the orthophoto map

3.1.1 The scale of the orthophoto map is ...

A. 1cm represents 100m.
B. 1cm represents 100cm.
C. 1m represents 500m. (1 x 1) (1)
D. 1cm represents 500cm.

3.1.2 Calculate the length of feature **6** demarcated in red in kilometres. (2 x 1) (2)

Refer to trigonometrical station **385** in block **D3** and the benchmark **1558.3** in block **E2** on the topographical map.

3.1.3 Give the direction of trigonometrical station **385** from the benchmark **1558.3**. (1 x 1) (1)

3.1.4 Calculate the difference in height between trigonometrical station **385** and the benchmark **1558.3.** (1 x 1) (1)

3.1.5 Use your answer to QUESTION 3.1.4 above to calculate the average gradient between trigonometrical station **385** and the benchmark **1558.3**

Formula: **Average gradient** = $\frac{\text{Vertical Interval (VI)}}{\text{Horizontal equivalent (HI)}}$ (1 x 4) (4)

3.1.6 Is the gradient between trigonometrical station **385** and the benchmark **1558.3** steep or gentle? (1 x 1) (1)

3.2 MAP INTERPRETATION

Refer to the orthophoto map.

3.2.1 Identify the street pattern around area **8** in block **D4**. (1 x 1) (1)

3.2.2 Give ONE advantage of the street pattern identified in QUESTION 3.2.1. (1 x 2) (2)

3.2.3 Area marked **6** is an example of a (primary/tertiary) sector. (1 x 1) (1)

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3.2.4 Why is area **6** highly compatible with the surrounding residential zone? (1 x 2) (2)

Refer to the topographical map.

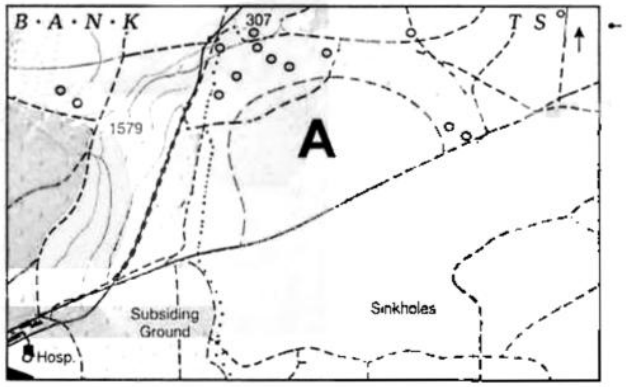
3.2.5 One of the primary activities taking place in block **A1** and **B1** is mining.

(a) Use map evidence to support this statement. (1 x 2) (2)

(b) Why are mining companies reluctant (unwilling) to rehabilitate (restore) the environment after mining? (2 x 2) (4)

3.3 GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

The following is an extract of block **E3** on the topographical map.



3.3.1 Identify data layer that feature **A** represents. (1 x 1) (1)

3.3.2 How does this feature (answer to QUESTION 3.3.1) promote farming in block **E3**? (1 x 2) (2)

3.3.3 Why is buffering necessary in the open space in block **E3** and **E4**? (1 x 1) (1)

Geologists use remote sensing to determine if a Platinum mine can be opened at area **7** on the orthophoto map.

3.3.4 Define the concept *remote sensing.* (1 x 2) (2)

3.3.5 How would remote sensing help people to develop a mine in area marked **7**? (1 x 2) (2)

[30]

GRAND TOTAL: 150

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