



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

GRADE 12

GEOGRAPHY P1

EXEMPLAR 2014

MARKS: 225

TIME: 3 hours

This question paper consists of 13 pages and a 12-page annexure.

INSTRUCTIONS AND INFORMATION

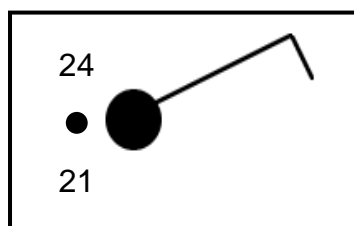
1. This question paper consists of four questions.
2. Answer ANY THREE questions of 75 marks each.
3. All diagrams are included in the ANNEXURE.
4. Number the answers correctly according to the numbering system used in this question paper. Number all your answers in the CENTRE of the line.
5. Leave a line between subsections of questions answered.
6. Start EACH question on a NEW page.
7. Do NOT write in the margins of the ANSWER BOOK.
8. Illustrate your answers with labelled diagrams, where possible.
9. Write neatly and legibly.

SECTION A: CLIMATE, WEATHER AND GEOMORPHOLOGY

Answer at least ONE question from this section. If you answer ONE question from SECTION A, you MUST answer TWO questions from SECTION B.

QUESTION 1

1.1 Answer the following questions based on the weather station model below:



- 1.1.1 Write down the air temperature at the weather station.
 - 1.1.2 From which direction is the wind blowing?
 - 1.1.3 What is the wind speed in knots?
 - 1.1.4 Does the cloud cover indicate OVERCAST or CLEAR skies?
 - 1.1.5 Name the precipitation shown on the weather station model.
 - 1.1.6 Write down the dew point temperature at the weather station.
 - 1.1.7 Is the probability of rain HIGH or LOW at this weather station?
- (7 x 1) (7)

1.2 Study the drainage patterns in FIGURE 1.2. Indicate to which drainage pattern each of the following descriptions refers. Write only the answer next to the question number (1.2.1–1.2.8) in the ANSWER BOOK. You may use the same answer more than once.

- 1.2.1 Resembles the branches of a tree
 - 1.2.2 Forms on rocks that have many joints and faults
 - 1.2.3 The main stream has many 90° angles along its course
 - 1.2.4 This pattern forms on rocks that have a uniform resistance to erosion
 - 1.2.5 Streams flow away from a central point
 - 1.2.6 The tributaries join the main stream at acute (small) angles
 - 1.2.7 Only forms on massive igneous rocks
 - 1.2.8 The tributaries join the main stream at a 90° angle
- (8 x 1) (8)

- 1.3 Study the information and satellite image on tropical cyclone Haruna in FIGURE 1.3 and answer the questions that follow.
- 1.3.1 Name the centre of the tropical cyclone labelled **A** on the satellite image. (1 x 1) (1)
- 1.3.2 State the direction in which the clouds are turning/rotating around the centre of the tropical cyclone. (1 x 1) (1)
- 1.3.3 What was the lifespan (time of existence) of tropical cyclone Haruna? (1 x 1) (1)
- 1.3.4 How many tropical cyclones, including Haruna, have Mozambique already experienced for the season? (1 x 2) (2)
- 1.3.5 Give ONE reason why tropical cyclone Haruna weakened when it moved over Madagascar. (1 x 2) (2)
- 1.3.6 Evaluate why the impact of a tropical cyclone is more severe in a country like Mozambique than in developed countries. (4 x 2) (8)
- 1.4 Study FIGURE 1.4 which shows the microclimate of a city.
- 1.4.1 Which areas in the city experience the highest and lowest temperatures respectively? (2 x 1) (2)
- 1.4.2 Define the term *urban heat island*. (1 x 1) (1)
- 1.4.3 State ONE difference between an urban heat island and a pollution dome. (1 x 2) (2)
- 1.4.4 Give ONE reason why a pollution dome forms. (1 x 2) (2)
- 1.4.5 Discuss TWO factors, evident in FIGURE 1.4, that cause cities to record higher temperatures than the surrounding rural area. (2 x 2) (4)
- 1.4.6 If you were an urban planner, describe how you would sustainably decrease the impact of urban heat islands. (2 x 2) (4)
- 1.5 FIGURE 1.5 is a sketch of a river system.
- 1.5.1 Name the high ridge labelled **A**. (1 x 1) (1)
- 1.5.2 What purpose does the high ridge (**A**) serve? (1 x 2) (2)
- 1.5.3 Explain TWO natural factors that could influence the stream flow of the river system. (2 x 2) (4)
- 1.5.4 Explain the formation of the delta at **B** in FIGURE 1.5. (2 x 2) (4)
- 1.5.5 State TWO advantages of farming in area **C**. (2 x 2) (4)

- 1.6 Read the case study on the Umgeni River in FIGURE 1.6.
- | | | | |
|-------|--|---------|-------------|
| 1.6.1 | Name the human activity that is polluting the Umgeni River. | (1 x 1) | (1) |
| 1.6.2 | What evidence suggests that the Umgeni River is dirty? | (1 x 2) | (2) |
| 1.6.3 | State the negative impact of the dirty water on the quality of life of people living in the area. | (2 x 2) | (4) |
| 1.6.4 | Suggest strategies that could be put in place to reduce the negative impact of humans on the Umgeni River. | (4 x 2) | (8) |
| | | | [75] |

QUESTION 2

- 2.1 Refer to FIGURE 2.1 showing two pressure cells in the Southern Hemisphere. Indicate whether the descriptions below refer to pressure cell **A** or **B**. Write only the answer next to the question number (2.1.1–2.1.8) in the ANSWER BOOK. You may use the same answer more than once.
- | | | | |
|-------|---|---------|-----|
| 2.1.1 | An example of a high-pressure cell | | |
| 2.1.2 | Air converges into the pressure cell | | |
| 2.1.3 | This pressure cell dominates the land in winter over South Africa | | |
| 2.1.4 | Air diverges from this cell | | |
| 2.1.5 | Associated with clear skies and stable weather | | |
| 2.1.6 | Also known as a cyclone | | |
| 2.1.7 | Associated with warm, rising air | | |
| 2.1.8 | Associated with the Tropical Pressure Belt | (8 x 1) | (8) |
- 2.2 Refer to FIGURE 2.2 showing fluvial landforms and answer the questions that follow.
- | | | | |
|-------|---|---------|-----|
| 2.2.1 | Name the outer bank of the river labelled A . | (1 x 1) | (1) |
| 2.2.2 | Does the inner bank (B) of a river experience more EROSION or more DEPOSITION? | (1 x 1) | (1) |
| 2.2.3 | Name the fluvial feature labelled C . | (1 x 1) | (1) |
| 2.2.4 | What is feature D called after it dries up? | (1 x 1) | (1) |
| 2.2.5 | Name the stream channel pattern labelled E . | (1 x 1) | (1) |
| 2.2.6 | Is feature E formed by EROSION or DEPOSITION? | (1 x 1) | (1) |
| 2.2.7 | Is feature C generally found in the UPPER or LOWER course of a river? | (1 x 1) | (1) |

- 2.3 Study the synoptic weather map in FIGURE 2.3 and answer the questions that follow.
- 2.3.1 Identify the THREE pressure systems labelled **A**, **B** and **C** respectively. (3 x 1) (3)
- 2.3.2 Explain why high-pressure cell **A** limits rainfall over the interior of the country during winter months. (2 x 2) (4)
- 2.3.3 What evidence on the synoptic weather map suggests that high-pressure cell **B** is ridging? (1 x 2) (2)
- 2.3.4 Evaluate the negative impact of the cyclone labelled **C** on the economy of South Africa. (4 x 2) (8)
- 2.4 FIGURE 2.4 is based on valley climates.
- 2.4.1 Name the wind labelled **A**. (1 x 1) (1)
- 2.4.2 Explain why wind **A** occurs at night. (2 x 2) (4)
- 2.4.3 A temperature inversion has formed at **B**. With reference to FIGURE 2.4, assess the impact that this is likely to have on the health of people living in the valley. (2 x 2) (4)
- 2.4.4 Give TWO reasons why area **C** is not suitable for the planting of all types of crops. (2 x 2) (4)
- 2.5 FIGURE 2.5 illustrates two drainage basins.
- 2.5.1 Define the term *drainage basin*. (1 x 1) (1)
- 2.5.2 Define the term *drainage density*. (1 x 1) (1)
- 2.5.3 Which drainage basin, **X** or **Y**, has a greater drainage density? (1 x 2) (2)
- 2.5.4 Give ONE reason for your answer to QUESTION 2.5.3. (1 x 2) (2)
- 2.5.5 Discuss TWO factors that could result in a drainage basin having a high drainage density. (2 x 2) (4)
- 2.5.6 Explain the impact of urban development at points **A**, **B** and **C** on the drainage density of drainage basin **X**. (2 x 2) (4)

2.6 FIGURE 2.6 illustrates river capture.

- | | | | |
|-------|--|---------|-------------|
| 2.6.1 | Is river S or river T the captor stream? | (1 x 1) | (1) |
| 2.6.2 | Name the features of river capture that developed at points A , B and C . | (3 x 1) | (3) |
| 2.6.3 | Give TWO possible reasons why the tributary of river T eroded through the watershed. | (2 x 2) | (4) |
| 2.6.4 | Write a short paragraph in which you explain the impact of river capture on the sustainability of the river as an ecosystem. | (4 x 2) | (8) |
| | | | [75] |

SECTION B: RURAL AND URBAN SETTLEMENTS AND ECONOMIC GEOGRAPHY OF SOUTH AFRICA

Answer at least ONE question from this section. If you answer ONE question from SECTION B, you MUST answer TWO questions from SECTION A.

QUESTION 3

3.1 Refer to settlements **A** to **E** in FIGURE 3.1. Indicate to which settlement each of the following descriptions refers. Write only the letter (A–E) next to the question number (3.1.1–3.1.7) in the ANSWER BOOK. You may use the same answer more than once.

3.1.1 Settlements located close to a source of water because water is scarce

3.1.2 Farmsteads that are dispersed/isolated

3.1.3 Farmsteads that follow a linear shape

3.1.4 Farmsteads that have a roughly circular shape

3.1.5 An isolated settlement most likely associated with subsistence farming

3.1.6 Associated with large commercial farms that are profit driven

3.1.7 Farmsteads associated with intensive commercial farming (7 x 1) (7)

3.2 Choose a term from COLUMN B that matches the description in COLUMN A. Write only the letter (A–I) next to the question number (3.2.1–3.2.8) in the ANSWER BOOK. You may use each answer only ONCE.

COLUMN A		COLUMN B	
3.2.1	Goods sold within South Africa's borders	A	trade
3.2.2	The extraction of raw materials from nature	B	secondary sector
3.2.3	Linked to innovation, research and development	C	gross domestic product
3.2.4	Exchange of goods and services	D	infrastructure
3.2.5	Goods sold outside South Africa's borders	E	primary sector
3.2.6	Value of goods and services produced locally	F	export market
3.2.7	Refers to services such as roads and communication networks	G	tertiary activities
3.2.8	Provision of services	H	home market
		I	quaternary sector

(8 x 1) (8)

- 3.3 FIGURE 3.3 shows a simple urban land-use model.
- 3.3.1 Which urban land-use model does FIGURE 3.3 show? (1 x 1) (1)
- 3.3.2 Identify the land-use zone at **A**. (1 x 1) (1)
- 3.3.3 Discuss TWO factors that would have influenced the location of land-use zone **A**. (2 x 2) (4)
- 3.3.4 Describe the location of the rural-urban fringe. (1 x 2) (2)
- 3.3.5 Although the inner city area is dilapidated (buildings are in a poor state), it still has very high property values. Explain why the dilapidation does not impact on property values. (4 x 2) (8)
- 3.4 Refer to the case study in FIGURE 3.4, based on urbanisation in South Africa.
- 3.4.1 Define the term *urbanisation*. (1 x 1) (1)
- 3.4.2 What proportion of South Africans lived in urban areas in 2011? (1 x 1) (1)
- 3.4.3 Give TWO possible reasons for the high growth rate in urbanisation in South Africa as mentioned in the case study. (2 x 2) (4)
- 3.4.4 What is the term used to describe the decreasing number of people left in rural areas? (1 x 2) (2)
- 3.4.5 Briefly discuss the negative aspects of urbanisation for cities in South Africa. (3 x 2) (6)
- 3.5 Refer to FIGURE 3.5 showing the contribution of economic activities to the GDP.
- 3.5.1 Which economic activity contributed the highest percentage to the GDP? (1 x 1) (1)
- 3.5.2 What was the percentage contribution of the activity mentioned in QUESTION 3.5.1 to the GDP? (1 x 1) (1)
- 3.5.3 Discuss any TWO natural factors that limit agricultural development in South Africa. (2 x 2) (4)
- 3.5.4 Discuss the importance of agriculture for economic development in South Africa. (2 x 2) (4)
- 3.5.5 Incorrect farming methods have a negative impact on food security in South Africa. Explain this statement. (2 x 2) (4)

- 3.6 Read the extract on the Maputo Development Corridor in FIGURE 3.6 and answer the questions that follow.
- | | | | |
|-------|--|---------|-------------|
| 3.6.1 | What does the abbreviation <i>SDI</i> stand for? | (1 x 1) | (1) |
| 3.6.2 | Name ONE development project associated with the Maputo Development Corridor. | (1 x 1) | (1) |
| 3.6.3 | How does the Maputo Development Corridor contribute to the economy of South Africa? | (1 x 2) | (2) |
| 3.6.4 | The establishment of the Maputo Development Corridor will address the problem of industrial centralisation in Gauteng. Explain this statement. | (2 x 2) | (4) |
| 3.6.5 | Outline the economic advantages for communities living along the Maputo Development Corridor. | (4 x 2) | (8) |
| | | | [75] |

QUESTION 4

- 4.1 Refer to the settlement hierarchy in FIGURE 4.1 that shows the classification of different types of settlements. Choose the correct answer from those given in brackets in the statements below. Write only the answer next to the question number (4.1.1–4.1.8) in the ANSWER BOOK.
- | | | |
|-------|---|-------------|
| 4.1.1 | The isolated farmhouse is (a single/multiple) building(s). | |
| 4.1.2 | The number of settlements (increases/decreases) as you move up the settlement hierarchy from the isolated farmstead to the conurbation. | |
| 4.1.3 | The size of the population (increases/decreases) as you move down the settlement hierarchy from a conurbation to an isolated farmstead. | |
| 4.1.4 | A large city can also be called a (megalopolis/metropolis). | |
| 4.1.5 | The settlement hierarchy in FIGURE 4.1 is a South African example of a settlement hierarchy as the (largest/smallest) of all settlements is not included. | |
| 4.1.6 | The only example of a conurbation in South Africa is found in the (PWV/Durban-Pinetown) Industrial Region. | |
| 4.1.7 | The relationship between the size of the population and the number of settlements is (directly/indirectly) proportional. | |
| 4.1.8 | The (hamlet/small town) is an example of a rural settlement. | (8 x 1) (8) |

4.2 Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (4.2.1–4.2.7) in the ANSWER BOOK.

4.2.1 Which ONE of the following economic activities is associated with the tertiary sector?

- A Mining
- B Forestry
- C Retail
- D Agriculture

4.2.2 Industries that are service-orientated are known as ... industries.

- A market-orientated
- B raw materials orientated
- C footloose
- D bridge

4.2.3 The clustering of economic activities that are similar and rely on each other is referred to as ...

- A agglomeration.
- B centralisation.
- C decentralisation.
- D nationalisation.

4.2.4 Designated areas that do not have traditional trade barriers are called ...

- A industrial development zones.
- B free-trade zones.
- C spatial development initiatives.
- D special economic zones.

4.2.5 The sector of the economy that is not regulated and registered for taxes is the ... sector.

- A formal
- B tertiary
- C informal
- D primary

4.2.6 Intensive farming for local and export markets is called ... farming.

- A small-scale
- B commercial
- C subsistence
- D livestock

- 4.2.7 The provision of electricity is a ... activity.
- A primary
 - B secondary
 - C tertiary
 - D quaternary
- (7 x 1) (7)

4.3 Refer to FIGURE 4.3 which shows an informal settlement.

- 4.3.1 Informal settlements are known by different names throughout the world. Give an example of ONE such a name. (1 x 1) (1)
- 4.3.2 State the trend in the development of informal settlements. (1 x 1) (1)
- 4.3.3 Give ONE reason for the trend mentioned in QUESTION 4.3.2. (1 x 2) (2)
- 4.3.4 Excluding the trend stated in QUESTION 4.3.2, discuss any TWO problems associated with informal settlements. (2 x 2) (4)
- 4.3.5 Most of the municipalities in South Africa have not had much success in stopping the development of informal settlements. Advise the municipalities on how this problem can be solved sustainably. (4 x 2) (8)

4.4 Read the article on a social justice issue in FIGURE 4.4.

- 4.4.1 Explain what is meant by the term *social justice*. (1 x 1) (1)
- 4.4.2 Name the social justice issue that the story captures. (1 x 1) (1)
- 4.4.3 Why is the word 'new' emphasised in the article? (1 x 2) (2)
- 4.4.4 Name the law that secures the rights of people who live under insecure conditions on land owned by others. (1 x 2) (2)
- 4.4.5 Excluding the social justice issue mentioned in QUESTION 4.4.2, discuss TWO other social justice issues experienced in rural areas. (2 x 2) (4)
- 4.4.6 Discuss any TWO problems that the government experiences with land reform. (2 x 2) (4)

4.5 Refer to FIGURE 4.5 on informal trade.

- | | | | |
|-------|---|---------|-----|
| 4.5.1 | When is trade considered to be informal? | (1 x 1) | (1) |
| 4.5.2 | Give ONE point of evidence from FIGURE 4.5 that it represents informal trade. | (1 x 1) | (1) |
| 4.5.3 | State TWO negative conditions that informal traders have to cope with on a daily basis. | (2 x 2) | (4) |
| 4.5.4 | With reference to FIGURE 4.5, describe how local authorities can improve the working space of informal traders. | (2 x 2) | (4) |
| 4.5.5 | Name ONE negative implication of the informal sector for the South African economy. | (1 x 2) | (2) |
| 4.5.6 | Despite the negative implication named in QUESTION 4.5.5, the South African government and local authorities tolerate the presence of informal traders. Explain why this is the case. | (2 x 2) | (4) |

4.6 Refer to FIGURE 4.6, a map showing the Gauteng (PWV) Industrial Region.

- | | | | |
|-------|---|---------|-------------|
| 4.6.1 | Refer to insert A and select the letter (B , C , D or G) that represents the Gauteng (PWV) Industrial Region. | (1 x 1) | (1) |
| 4.6.2 | Name the main primary activity that stimulated the growth of Gauteng (PWV) as the major industrial region in South Africa. | (1 x 1) | (1) |
| 4.6.3 | Discuss THREE problems that developed as a result of an over-concentration of industries in the Gauteng (PWV) Industrial Region. | (2 x 2) | (4) |
| 4.6.4 | Despite the problems associated with industrial development in the Gauteng (PWV) Industrial Region, industrial development in this region is important for economic development in South Africa as a whole. Discuss this statement. | (4 x 2) | (8) |
| | | | [75] |

TOTAL: 225