



Education

KwaZulu-Natal Department of Education
REPUBLIC OF SOUTH AFRICA

GEOGRAPHY P1

PREPARATORY EXAMINATION

SEPTEMBER 2016

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

MARKS: 225

TIME: 3 hours

This question paper consists of 15 pages and a 11 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. Leave a line between 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 your ANSWER BOOK.
8. Where possible, illustrate your answers with labelled diagrams.
9. Write clearly and legibly.

SECTION A: CLIMATE, WEATHER AND GEOMORPHOLOGY

Answer at least ONE question from SECTION A. If you answer ONE question from SECTION A you must answer both questions from SECTION B.

QUESTION 1

1.1 FIGURE 1.1 illustrates the origin of a mid-latitude cyclone in the Southern Hemisphere. Various options are provided as possible answers to the following questions. Choose the correct answer and write only the letter (A – D) next to the question number (1.1.1-1.1.7) in the answer book e.g. 1.1.8 D.

1.1.1 The latitude at **P** is approximately ...south.

- A $0^{\circ} - 5^{\circ}$
- B $70^{\circ} - 90^{\circ}$
- C $55^{\circ} - 65^{\circ}$
- D $25^{\circ} - 35^{\circ}$

1.1.2 The line labelled **Q** is known as the ...front.

- A polar
- B moisture
- C cold
- D warm

1.1.3 The following air movements take place along the line labelled **Q**.

- A convergence and subsidence
- B convergence and upliftment
- C divergence and subsidence
- D divergence and upliftment

1.1.4 The winds at **R** are known as ...winds.

- A westerly
- B polar easterly
- C polar westerly
- D tropical easterly

1.1.5 The air mass at **T** is ...

- A cold and humid.
- B cold and dry.
- C warm and humid.
- D warm and dry.

1.1.6 As this system develops it moves from ...

- A north to south.
- B east to west.
- C south to north.
- D west to east.

1.1.7 The mid-latitude cyclone shown in FIGURE 1.1 is in its ... stage of development.

- A initial
- B wave
- C warm sector/mature
- D occlusion

(7 x 1) (7)

1.2 Choose a term from COLUMN B that matches the description in COLUMN A. Write down the question number (1.2.1 – 1.2.8) one below the other and write only the correct letter next to the question number in the ANSWER BOOK. e.g. 1.2.9 J.

COLUMN A	COLUMN B
1.2.1 Fluvial feature found at the mouth of a river	A ox-bow lake
1.2.2 Water that enters the soil	B waterfall
1.2.3 The upper level of groundwater	C base flow
1.2.4 Fluvial feature formed mainly by vertical erosion	D infiltration
1.2.5 Water that flows on the surface after it rains	E delta
1.2.6 Flow of water under ground to rivers	F water table
1.2.7 Fluvial feature formed when the neck of a meander is bridged during a flood	G v-shaped valley
1.2.8 Fluvial feature formed at a knickpoint.	H run-off
	I groundwater

(8 x 1) (8)

- 1.3 Study FIGURE 1.3 which shows a sketch of a hurricane approaching the USA.
- 1.3.1 Provide evidence from FIGURE 1.3 that a hurricane is shown. (1 x 1)(1)
- 1.3.2 Provide TWO pieces of evidence from FIGURE 1.3 that the Texan coastal community is well-prepared for the possible occurrence of a hurricane. (2 x 1)(2)
- 1.3.3 With reference to FIGURE 1.3, give ONE reason why one can say that the hurricane is in its mature stage of development. (1 x 2)(2)
- 1.3.4 Of what importance is satellite imagery in the tracking of a hurricane? (1 x 2)(2)
- 1.3.5 Give ONE reason why this hurricane will dissipate when it makes landfall (reaches land). (1 x 2)(2)
- 1.3.6 In a paragraph of approximately EIGHT lines, assess, why the impact of this hurricane will be less severe in terms of the loss of lives for the USA as compared to a tropical cyclone of a similar intensity if it struck Mozambique. (4 x 2)(8)
- 1.4 Study FIGURE 1.4 illustrating the influence of aspect in a valley in the Southern Hemisphere.
- 1.4.1 Define the term *aspect*. (1 x 1)(1)
- 1.4.2 Give ONE piece of evidence from the diagram that the illustrated valley is in the Southern Hemisphere. (1 x 1)(1)
- 1.4.3 Draw a simple, labelled, freehand sketch to illustrate the development of katabatic air flow at night time in this valley. (3 x 1)(3)
- 1.4.4 Describe TWO conditions necessary for the formation of frost on the valley floor in winter. (2 x 2)(4)
- 1.4.5 Explain why farmers will be selective about the crops they plant on slopes at **A** and **B** respectively. (2 x 2)(4)

- 1.5 Study FIGURE 1.5 which shows the longitudinal profile of the Boquet river.
- 1.5.1 Define the term *longitudinal profile*. (1 x 1)(1)
- 1.5.2 Name the source of the Boquet river. (1 x 1)(1)
- 1.5.3 Identify ONE temporary base level along the Boquet River. (1 x 1)(1)
- 1.5.4 Explain how the Boquet River's gradient in its upper course enables it to erode. (2 x 2)(4)
- 1.5.5 Explain in a paragraph of approximately EIGHT lines how river rejuvenation could change the fluvial features along the course of the Boquet River. (4 x 2)(8)
- 1.6 Study FIGURE 1.6 that shows the Tugela drainage basin and answer the questions that follow.
- 1.6.1 Define the term *drainage basin*. (1 x 1)(1)
- 1.6.2 Name the drainage pattern of the Tugela River. (1 x 1)(1)
- 1.6.3 Identify the feature marked **C** in FIGURE 1.6. (1 x 1)(1)
- 1.6.4 The Tugela river shows a medium to high drainage density. Explain TWO factors that could have contributed to this drainage density. (2 x 2)(4)
- 1.6.5 Determine the stream order where the Tugela river enters the ocean. (1 x 2)(2)
- 1.6.6 Suppose that this drainage basin receives heavy rainfall for several days.
- (a) How will this continuous heavy rainfall impact on the stream order of the Tugela River where it enters the sea. (1 x 2)(2)
- (b) Explain your answer to QUESTION 1.6.6 (a). (2 x 2)(4)

[75]

QUESTION 2

2.1 Refer to FIGURE 2.1 showing a synoptic weather map. (The letters **A**, **B**, **C** and **D** have been printed on the synoptic chart)

2.1.1 Give ONE piece of evidence from the synoptic weather map that indicates that the map represents a summer situation.

2.1.2 Describe the pressure gradient at **A**.

2.1.3 Identify the pressure cells **B** and **C**.

2.1.4 With reference to the weather system **D**:

(a) Identify the weather system.

(b) How many such weather systems had occurred before Bongani in the present season.

(c) State the latitudinal position of this system.

(d) Give the general direction of movement of this system. (8 x 1) (8)

2.2 Refer FIGURE 2.2 Choose the correct word from within the brackets. Write only the question number and your choice of word e.g. 2.2.8 metamorphic.

2.2.1 The underlying rock structure of this river is (sedimentary/igneous).

2.2.2 The meandering river at **1** is found in its (upper/middle) course.

2.2.3 The uplifted feature at **2** is caused by (folding/faulting).

2.2.4 The rate of erosion is the (same/not the same) as the rate of upliftment.

2.2.5 A common fluvial landscape found at **3** is a (gorge/waterfall).

2.2.6 The river is much (older/younger) than the surrounding landscape.

2.2.7 The FIGURE 2.2 shows a (superimposed/antecedent) river drainage. (7 x 1) (7)

- 2.3 Refer to FIGURE 2.3 showing heat island and pollution dome experienced during the day.
- 2.3.1 Define the term *pollution dome*. (1 x 1)(1)
- 2.3.2 State the difference in temperature between rural and urban areas. (1 x 1)(1)
- 2.3.3 With reference to evapo-transpiration, give ONE reason for the lower temperatures experienced in rural areas. (1 x 2) (2)
- 2.3.4 Compare the levels of precipitation over a city to that of the rural areas. (1 x 2)(2)
- 2.3.5 Comment on the quality of precipitation experienced over a city. (1 x 2)(2)
- 2.3.6 In a paragraph of approximately EIGHT lines, describe, with reasons, how the heat and pollution dome will change during the night. (4 x 2) (8)
- 2.4 Refer to FIGURE 2.4 **A** and 2.4 **B** showing the different positions of the upper air inversion layer over South Africa.
- 2.4.1 Define the term *inversion layer*. (1 x 1) (1)
- 2.4.2 Which of the diagrams, FIGURE 2.4 **A** or 2.4 **B**, represents summer months? (1 x 1) (1)
- 2.4.3 Give ONE reason for your answer to QUESTION 2.4.2. (1 x 2) (2)
- 2.4.4 Name the high pressure cell responsible for the changing altitude of the inversion layer. (1 x 2) (2)
- 2.4.5 Explain how the position of the inversion layer influences the amount of rainfall received over the South African interior in FIGURE 2.4 **A**. (2 x 2) (4)
- 2.4.6 How will the varying amounts of rainfall over the South African interior in summer and winter, impact on farming activities? (2 x 2) (4)

- 2.5 Refer to FIGURE 2.5 showing river capture.
- 2.5.1 Define the term *river capture*. (1 x 1) (1)
- 2.5.2 Identify the features of river capture labelled **B** and **C**. (2 x 1) (2)
- 2.5.3 Provide TWO possible reasons why river **Y** captured river **X**. (2 x 2) (4)
- 2.5.4 Mention TWO changes in river **B** after river capture has taken place. (2 x 2) (4)
- 2.5.5 Outline the impact of river capture on farming activities along river **B**. (2 x 2) (4)
- 2.6 Read the article in FIGURE 2.6 which is a case study of the Kat River Valley catchment in the Eastern Cape.
- 2.6.1 Define the term *catchment management*. (1 x 1) (1)
- 2.6.2 State the environmental problem that led to decline of the water quality of the water of the Kat River catchment area. (1 x 1) (1)
- 2.6.3 What is the main aim of the Department of Water Affairs and the community stakeholders in the Kat River catchment project? (1 x 1) (1)
- 2.6.4 Why is it important to involve the local communities in catchment management? (2 x 2) (4)
- 2.6.5 As a newly appointed environmental officer in the Department of Water Affairs, outline your strategies to help rectify the damage to the Kat River Dam and to reduce the water stress being experienced by local Municipalities in the Kat River Valley catchment area. (4 x 2) (8)

[75]

SECTION B: RURAL AND URBAN SETTLEMENT, ECONOMIC GEOGRAPHY OF SOUTH AFRICA

Answer at least ONE question from this section. If you answer ONE question from SECTION B you must answer both questions from SECTION A.

QUESTION 3

- 3.1 Study FIGURE 3.1 showing rural settlement patterns found in South Africa.
- 3.1.1 Identify each of the settlement patterns labelled **A** and **D**.
- 3.1.2 Identify the shape of settlement **B**.
- 3.1.3 Give ONE factor that may have influenced the shape of settlement **B**.
- 3.1.4 Which settlement is a wet point settlement?
- 3.1.5 Why is settlement mentioned in QUESTION 3.1.4 a wet point settlement?
- 3.1.6 Identify the physical factor responsible for the site of settlement **A**. (7 x 1) (7)
- 3.2 Choose a term from COLUMN B that matches the description in COLUMN A. Write down (3.2.1 – 3.2.8) one below the other and write only the correct letter next to the question number in the ANSWER BOOK. e.g. 3.2.9 J.

COLUMN A		COLUMN B	
3.2.1	Industries that depend largely on manual labour	A	Tertiary
3.2.2	Establishment of new industries outside the core areas	B	Labour intensive
3.2.3	Industries that use expensive machinery on large scale	C	Trade
3.2.4	Economic activity that renders a service	D	Capital intensive
3.2.5	Import and export relations between countries	E	Industrial decentralisation
3.2.6	Value of goods and services produced in a country in one year	F	Footloose
3.2.7	Economic activity that involves scientific research	G	Gross domestic product
3.2.8	Industries that are not affected by locational factors	H	Bridge industries
		I	Quaternary

(8 x 1) (8)

- 3.3 Rural urban migration has become a world-wide trend in recent times. As a result of this trend, more and more people live in urban areas. South Africa is not unique in the problems experienced in rural settlements.
- 3.3.1 Define the term *rural-urban migration*. (1 x 1)(1)
- 3.3.2 Give ONE push factor responsible for rural-urban migration. (1 x 2)(2)
- 3.3.3 Explain TWO sustainable farming strategies that can be used to attract people to the rural areas. (2 x 2)(4)
- 3.3.4 In a paragraph of approximately EIGHT lines, evaluate the consequences of rural-urban migration on rural areas. (4 x 2)(8)
- 3.4 Refer to FIGURE 3.4 based on Urban Sprawl.
- 3.4.1 Define the term *urban sprawl*. (1 x 1)(1)
- 3.4.2 What message is the cartoonist trying to convey (get across) to readers about urban sprawl? (1 x 2)(2)
- 3.4.3 State ONE reason why people and businesses are attracted to the outskirts of the city. (1 x 2)(2)
- 3.4.4 Why are farmers concerned about urban sprawl? (2 x 2)(4)
- 3.4.5 Mention ONE problem that city councils experience regarding urban sprawl. (1 x 2)(2)
- 3.4.6 Provide TWO possible solutions to slow down urban sprawl. (2 x 2)(4)
- 3.5 Refer to FIGURE 3.5 based on South African mining and quarrying.
- 3.5.1 To which economic sector does mining and quarrying belong to? (1 x 1)(1)
- 3.5.2 Describe the trend in the contribution of mining and quarrying to South Africa's GDP. (1 x 1)(1)
- 3.5.3 Provide ONE reason why the South African mining industry must be revitalised (strengthened). (1 x 1)(1)
- 3.5.4 Discuss the significance of mining and quarrying to the South African economy. (2 x 2)(4)
- 3.5.5 In a paragraph of approximately EIGHT lines, discuss how labour issues and mining hazards contributed to the trend described in QUESTION 3.5.2. (4 x 2)(8)

- 3.6 Read the extract on the Eastern Cape in FIGURE 3.6. South Africa's fourth largest industrial region, Port Elizabeth-Uitenhage, is located in this province.
- 3.6.1 Name the main industry found in the Port Elizabeth-Uitenhage industrial region. (1 x 1) (1)
- 3.6.2 What is meant by the term *subsidiary industries* as mentioned in the extract? (1 x 1) (1)
- 3.6.3 Mention ONE product produced by the *subsidiary industries* found in the Port Elizabeth Uitenhage industrial region. (1 x 1) (1)
- 3.6.4 Explain why the location of the Port Elizabeth Uitenhage industrial region is an advantage for international trade. (2 x 2) (4)
- 3.6.5 The situation of the Port Elizabeth Uitenhage industrial region, far from the major power stations has increased the cost of electricity. Explain how this cost factor can be overcome. (2 x 2) (4)
- 3.6.6 Discuss the importance of Port Elizabeth-Uitenhage industrial region to the economic development of the Eastern Cape. (2 x 2) (4)
- [75]

QUESTION 4

- 4.1 Select your answer from alternatives provided within the block. Write down question numbers (4.1.1 – 4.1.8) one below the other and write only the answer next to it.

urban profile, conurbation, urban growth, urban expansion, counter-urbanisation, village, metropolis, town, megalopolis
--

- 4.1.1 A large city surrounded by several towns which are dependent on it.
- 4.1.2 The smallest urban settlement.
- 4.1.3 A large urban settlement formed when several towns and cities merge as a result of rapid expansion.
- 4.1.4 A large settlement formed when several conurbations merge.
- 4.1.5 The physical or aerial growth of a town or city.
- 4.1.6 Side view of a town or city.
- 4.1.7 The increase in the number of urban inhabitants.
- 4.1.8 Movement of people from major cities to smaller urban settlements and rural areas. (8 x 1)(8)
- 4.2 Refer to FIGURE 4.2 which shows types of farming (**A** and **B**). Match the farming type **A** or **B** to the statements below.
- 4.2.1 High yield per hectare.
- 4.2.2 Presence of farm boundaries and roads.
- 4.2.3 Traditional farming methods are used.
- 4.2.4 Farm for own use.
- 4.2.5 Large capital input needed.
- 4.2.6 Contributes to food security.
- 4.2.7 Crops such as maize and vegetable are grown on a small scale. (7 x 1)(7)

- 4.3 Refer to FIGURE 4.3 based on land reform in South Africa.
- 4.3.1 Name ONE factor prior to 1994 that allowed white commercial farmers to control 80% of agricultural land. (1 x 1) (1)
- 4.3.2 Suggest TWO main reasons for land reform in post- apartheid South Africa. (2 x 2) (4)
- 4.3.3 Describe the principle of the 'willing seller, willing buyer' (WSWB). (1 x 2) (2)
- 4.3.4 Explain TWO ways in which the principle of the WSWB has impacted negatively on land reform. (2 x 2) (4)
- 4.3.5 Discuss TWO challenges/obstacles (excluding the WSWB) that have resulted from the Land Reform Programme. (2 x 2) (4)
- 4.4 Refer to FIGURE 4.4 showing the CBD of a large city.
- 4.4.1 Write out the abbreviation CBD in full. (1 x 1) (1)
- 4.4.2 Provide evidence from the source to indicate that the CBD;
- (a) is most accessible. (1 x 1) (1)
- (b) has intensive land-use. (1 x 1) (1)
- 4.4.3 Discuss TWO reasons why the CBD has a larger population density during the day than during the night. (2 x 2) (4)
- 4.4.4 The CBD is losing its prominence (importance) in many South African cities due to lack of planning. In a paragraph of approximately EIGHT lines, outline possible solutions to revitalise (renew) the CBD into a sustainable unit. (4 x 2) (8)

- 4.5 Refer to FIGURE 4.5 showing one solution for food insecurity in South Africa.
- 4.5.1 Define the term *food insecurity*. (1 x 1) (1)
- 4.5.2 What is a *genetically modified crop*? (1 x 1) (1)
- 4.5.3 Which words in the cartoon indicates that the two businessmen are dissatisfied with the independent scientist overseeing the GM crop production programme. (1 x 1) (1)
- 4.5.4 Explain the significance of the independent scientists standing outside the fence. (2 x 2) (4)
- 4.5.5 Discuss TWO ways in which genetically modified foods can help solve the problem of food insecurity in South Africa. (2 x 2) (4)
- 4.5.6 Explain how poor and incorrect farming methods have contributed to food insecurity. (2 x 2) (4)
- 4.6 Study FIGURE 4.6 based on Richards Bay Industrial Development Zone.
- 4.6.1 Define the term *Industrial Development Zone*. (1 x 1) (1)
- 4.6.2 What makes Richards Bay strategically placed as an Industrial Development Zone? (2 x 1) (2)
- 4.6.3 Describe the relationship between an Industrial Development Initiative and a Spatial Development Zone. (1 x 2) (2)
- 4.6.4 Mention ONE contribution of the Richards Bay IDZ to the development of the local communities. (1 x 2) (2)
- 4.6.5 The Richards Bay IDZ claims to be operating within a global context, with great potential for development. In a paragraph of approximately EIGHT lines, discuss the factors that favour economic development in the Richards Bay IDZ. (4 x 2) (8)

[75]

GRAND TOTAL: [225]





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REPUBLIC OF SOUTH AFRICA

GEOGRAPHY P1

ANNEXURE

SEPTEMBER 2016

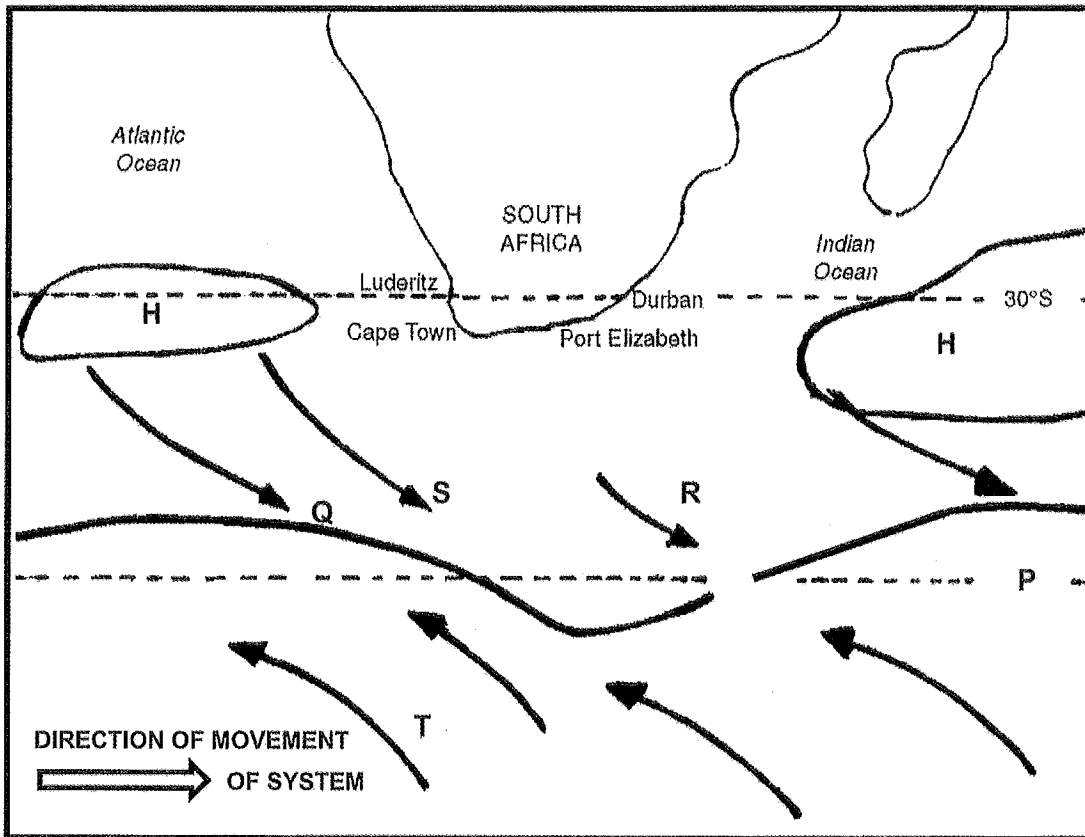
PREPARATORY EXAMINATION

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

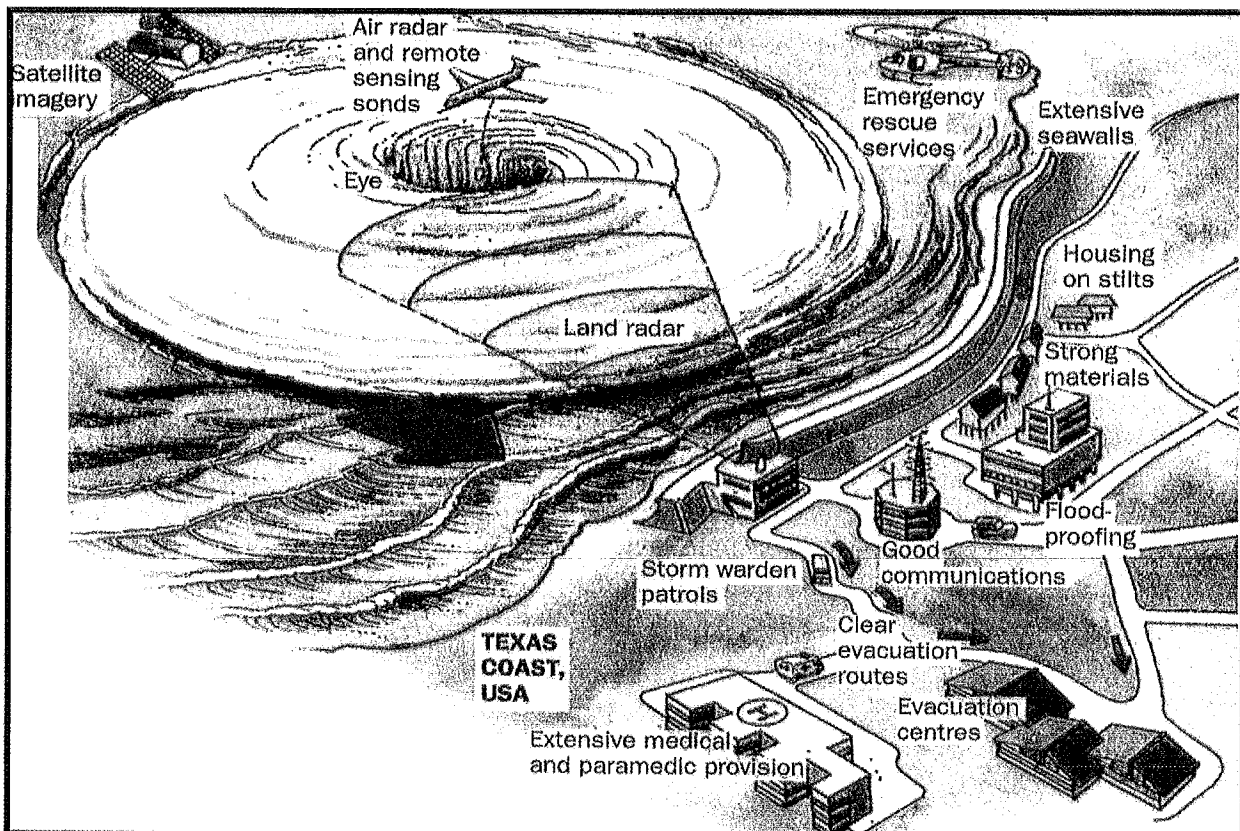
This annexure consists of 11 pages.

FIGURE 1.1: ORIGIN OF A MID-LATITUDE CYCLONE



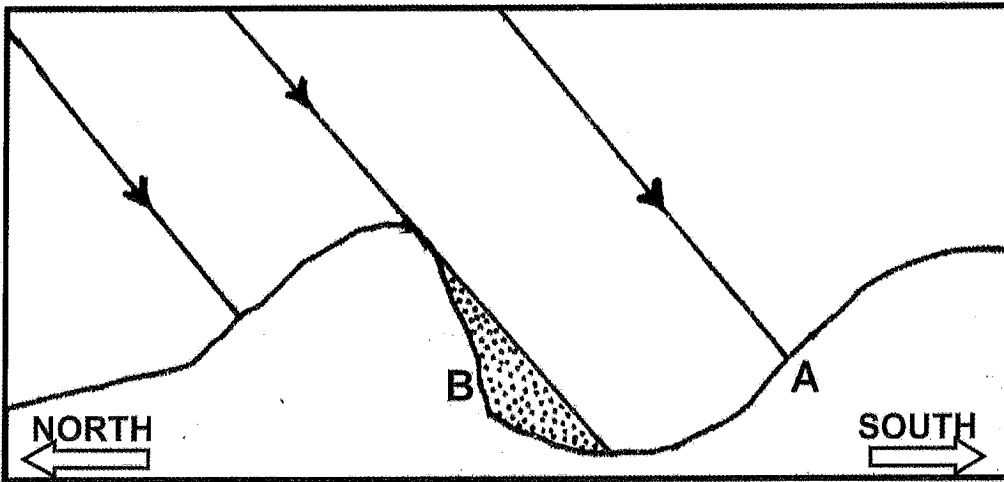
[Source: Adapted from South African Weather Patterns]

FIGURE 1.3: HURRICANE



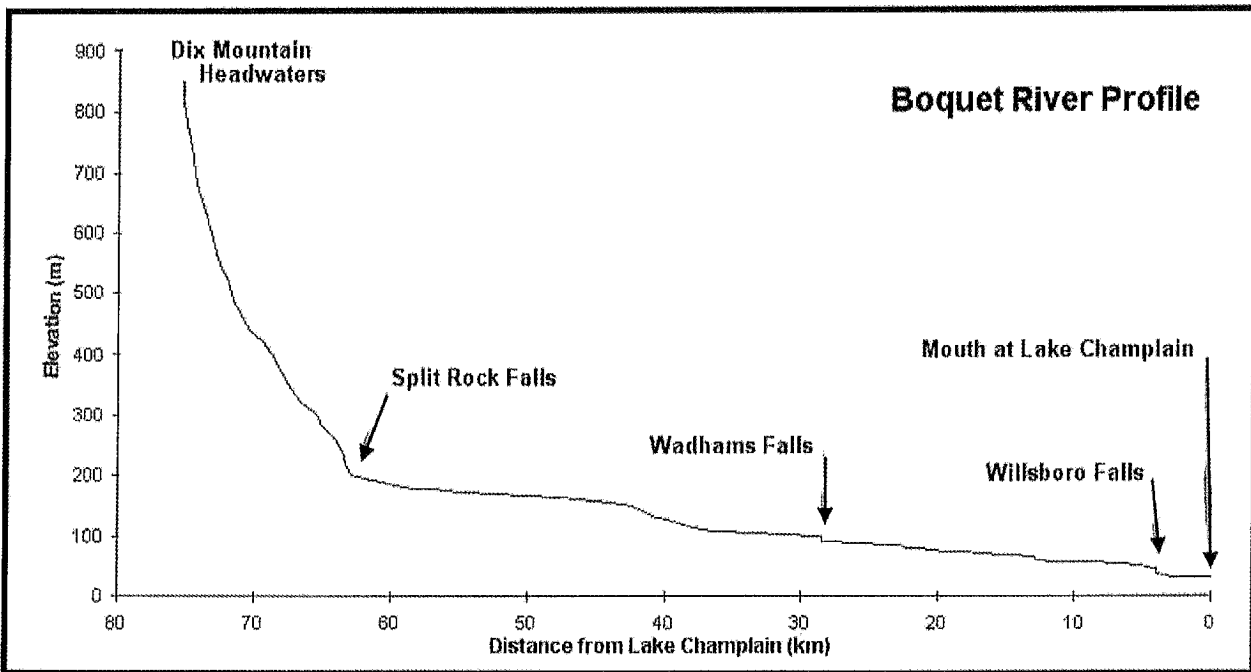
[Source: Telematics]

FIGURE 1.4: VALLEY IN THE SOUTHERN HEMISPHERE



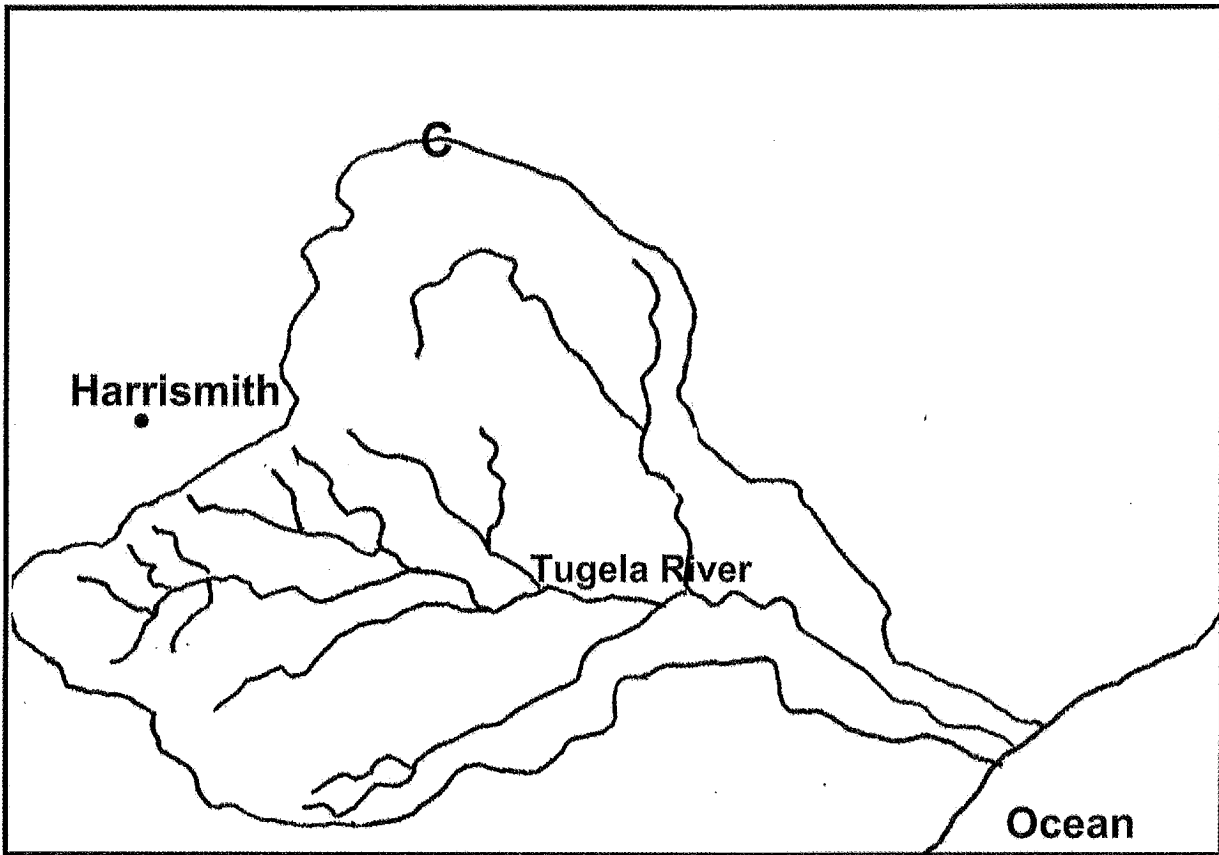
[Source: Adapted from A Handbook for Learners]

FIGURE 1.5: LONGITUDINAL PROFILE OF THE BOQUET RIVER



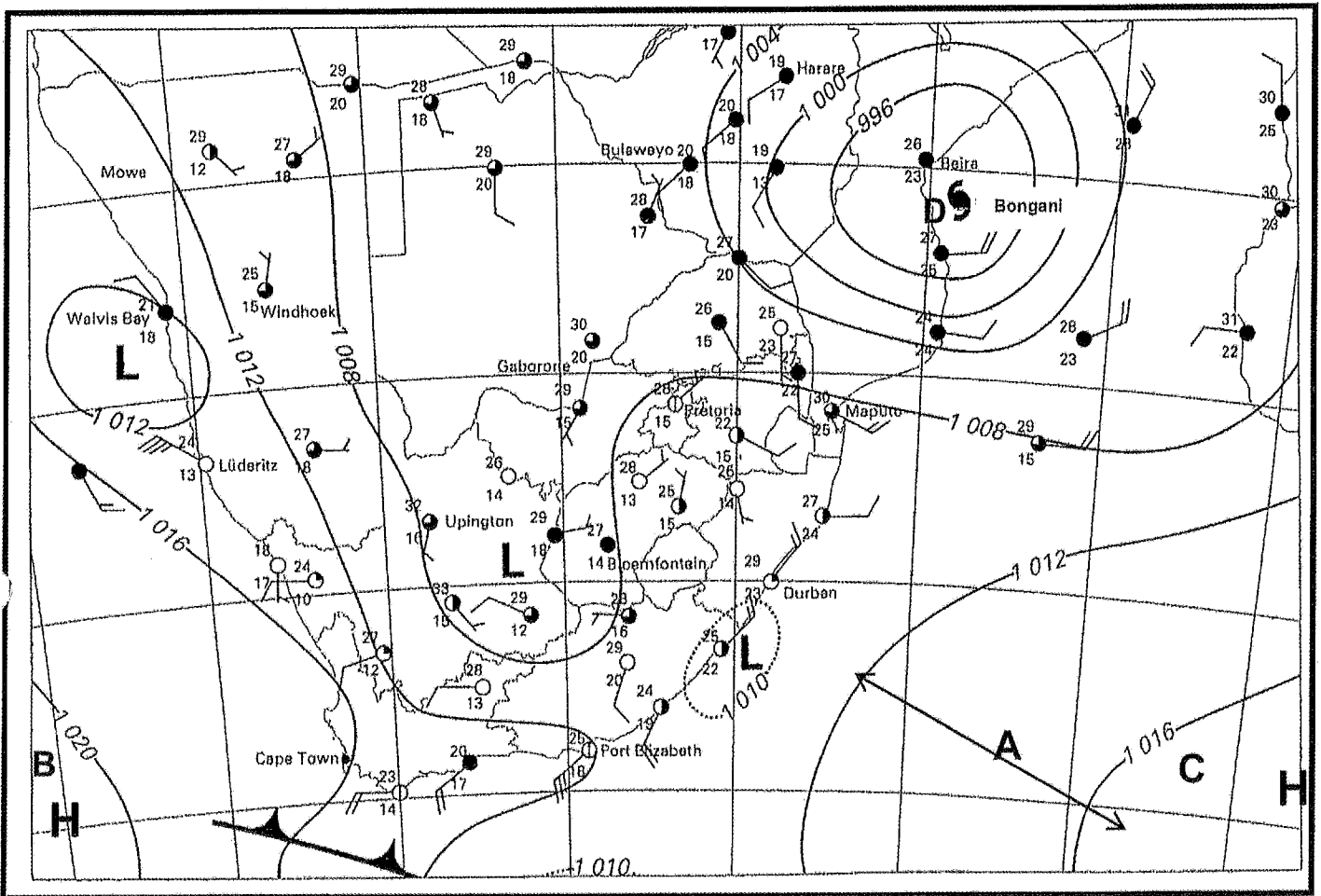
[Adapted from Processes and Landforms by Alan Clowes and Peter Comfort]

FIGURE 1.6: TUGELA DRAINAGE BASIN



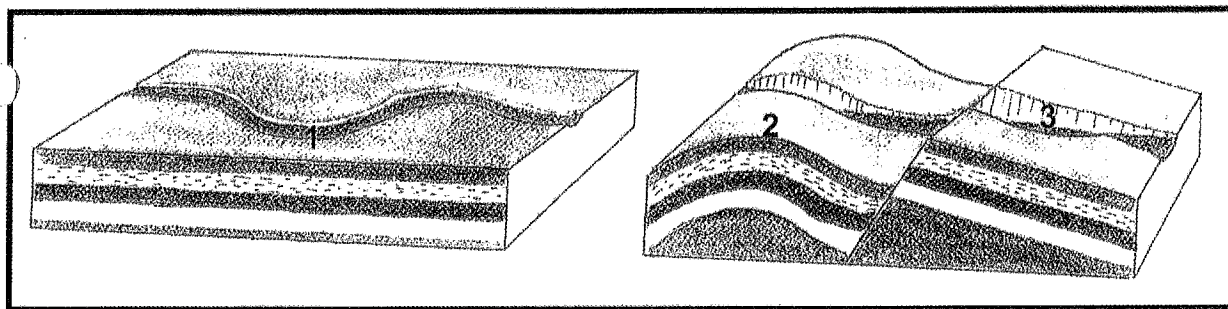
[Adapted from <https://en.wikipedia.org/wiki/tugela/river>]

FIGURE 2.1: SYNOPTIC WEATHER MAP



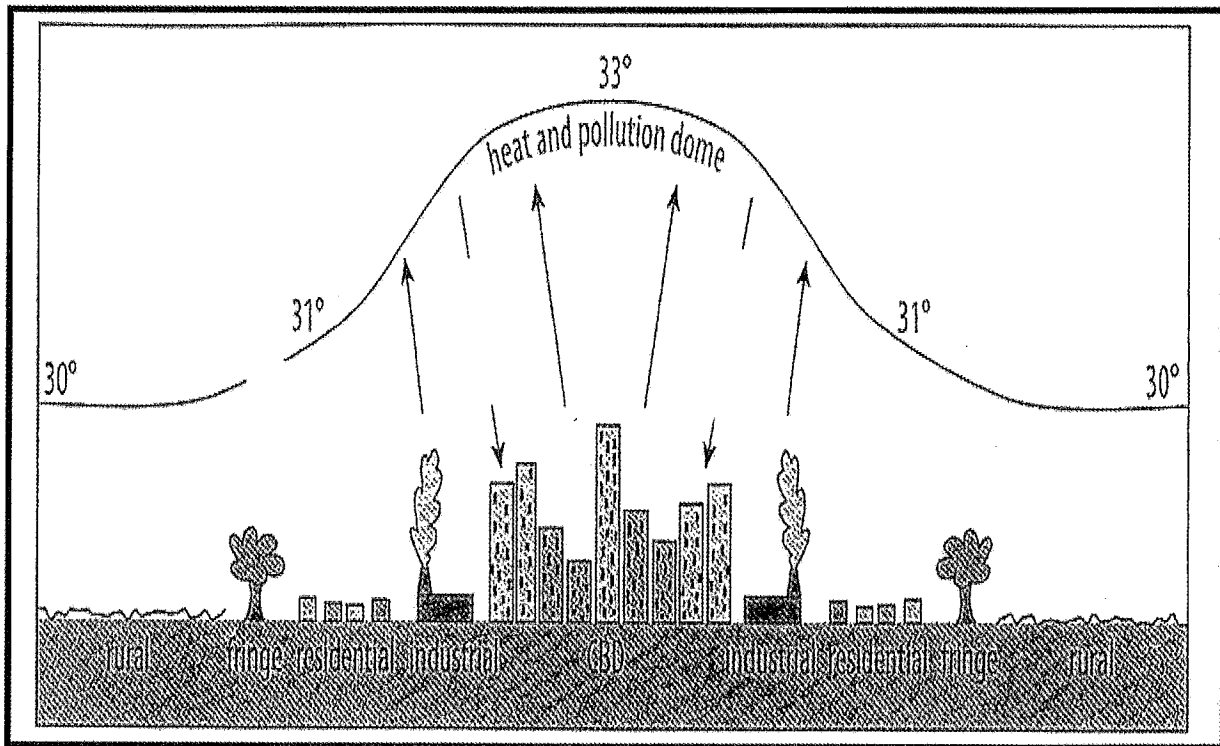
[Adapted from South African Weather Services]

FIGURE 2.2: DRAINAGE PATTERN



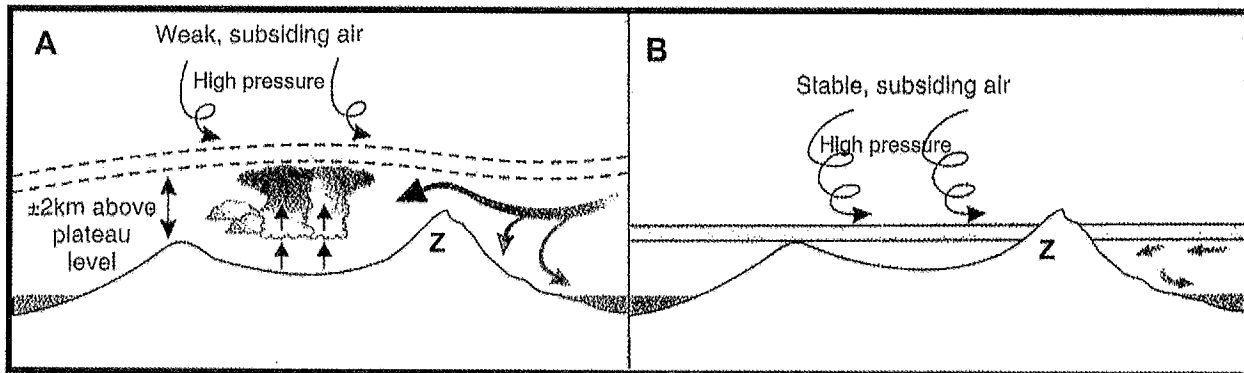
[Adapted from https://en.wikipedia.org/wiki/antecedent_drainage_stream]

FIGURE 2.3: HEAT ISLAND AND POLLUTION DOME

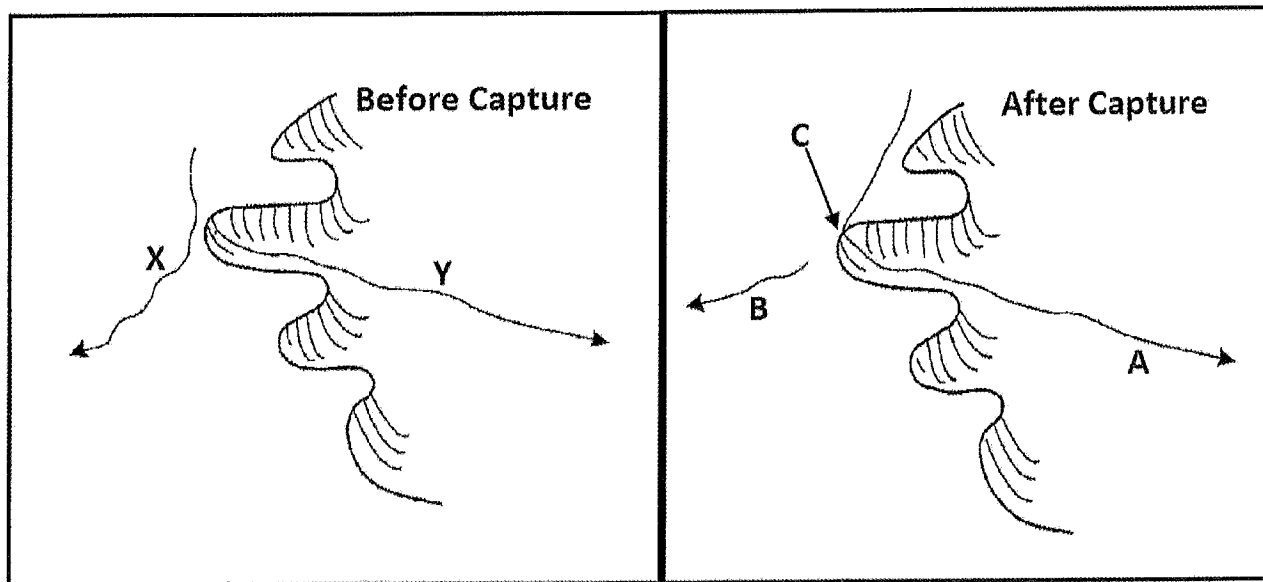


[Source: Study Master]

FIGURE 2.4: CHANGING POSITIONS OF INVERSION LAYER



[Source: South African Weather Patterns]

FIGURE 2.5: RIVER CAPTURE

SOURCE:[Adapted from Shutters Geography]

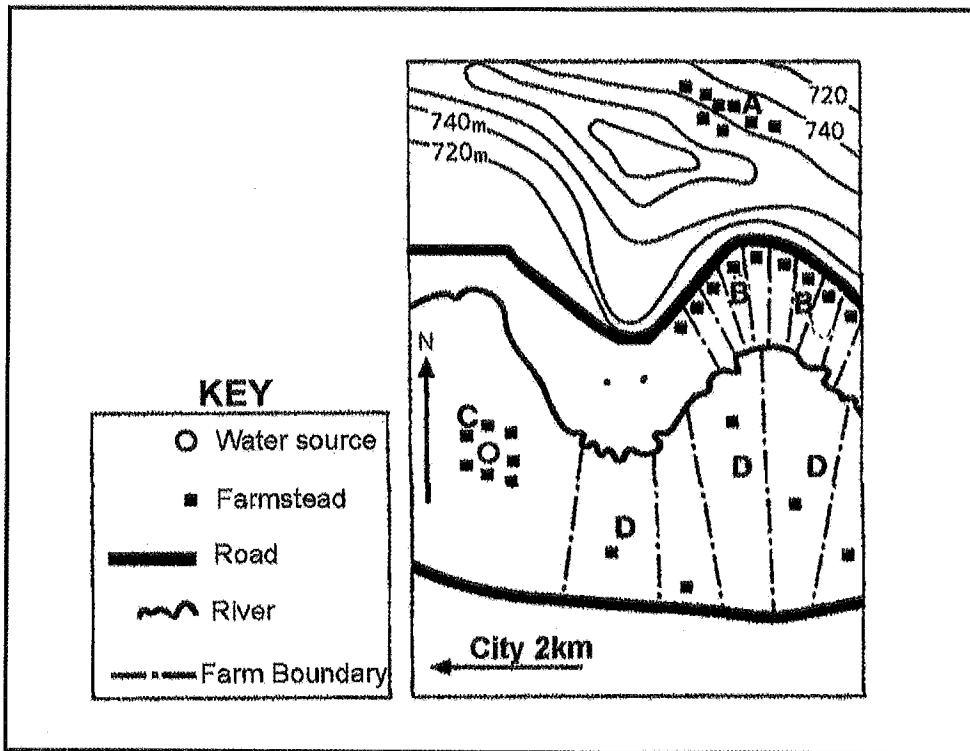
FIGURE 2.6: KAT RIVER VALLEY CATCHMENT MANAGEMENT

The Kat River is a tributary of the Great Fish River. The catchment is home to about 178 000 people.

Among the observed serious environmental problems in the area is soil erosion which is caused by a combination of communal grazing system and the steep slopes. This problem has led to an increasing deposition of sediment in the Kat River dam. Other problems identified through community workshops included lack of clean water and sanitation. All these issues needed to be resolved. Community stakeholders (local residents) on whom the status of water and land resources had the highest impact was involved in the catchment rehabilitation programme. The project intended to address the gully erosion problem, which was prominent in the upper and middle reaches of the catchment. The project employed community members in building soil erosion control structures which resulted in improved river health and provided an income for community members.

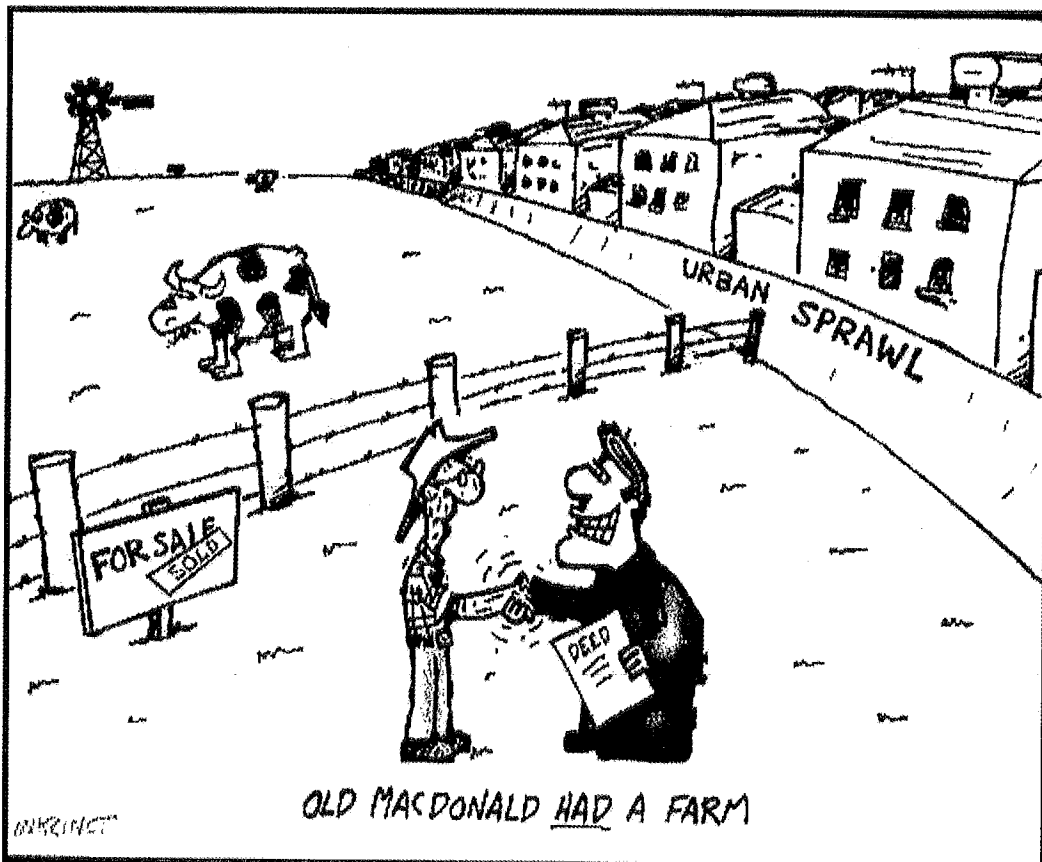
[Source: Adapted from Kat River Valley Catchment Management By Dr. Eliab Simpungwe]

FIGURE 3.1: RURAL SETTLEMENT



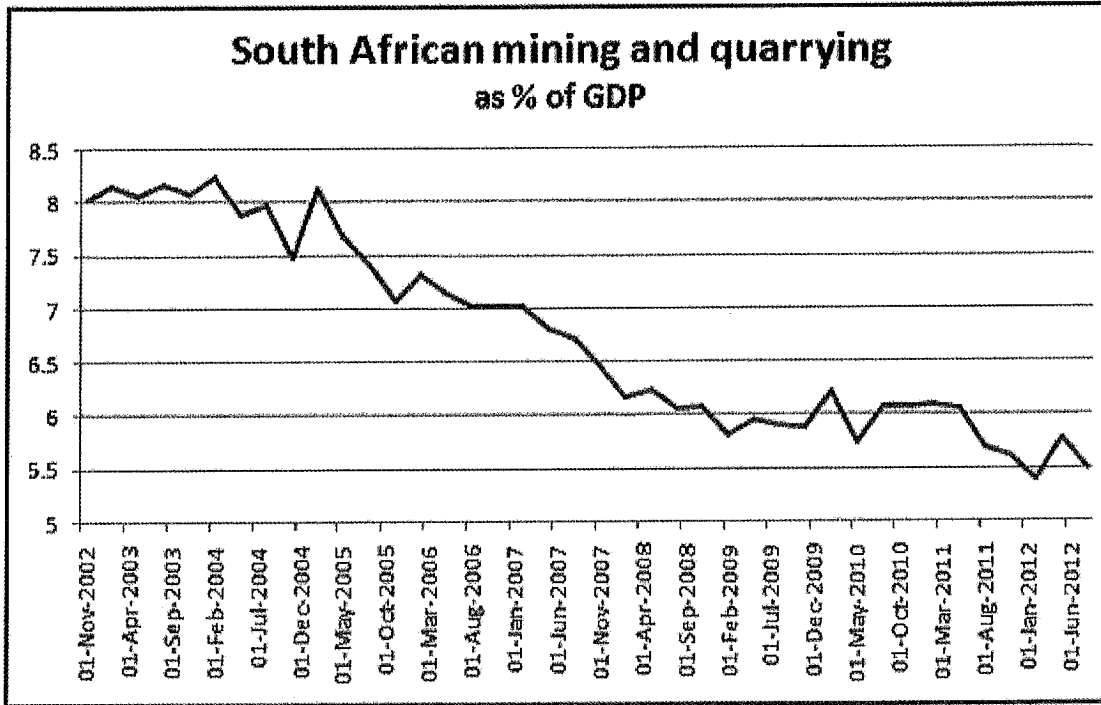
[Source: Adapted from IGCSE Geography]

FIGURE 3.4: URBAN SPRAWL



[Source: 2012-317 © INKCINCT Cartoons www.inkcinct.com.au]

FIGURE 3.5: SOUTH AFRICAN MINING AND QUARRYING



[Source: Statistics SA]

FIGURE 3.6: INVESTING IN THE EASTERN CAPE

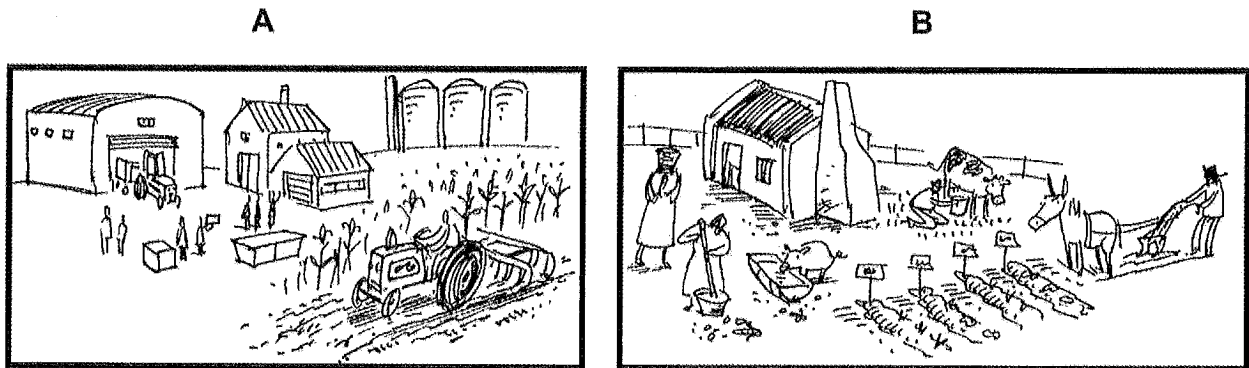
The Eastern Cape, home to the Port Elizabeth-Uitenhage industrial region, is on the south-eastern coast of Africa, a location that is proving to be an international asset. The allocation of two of South Africa's five industrial development zones (IDZs) to the province is confirmation of the potential that is offered by the shipping traffic that operates between Europe and Asia and the Far East. This province boasts with three major ports.

The Eastern Cape is home to four of South Africa's biggest automotive industries, and several of the largest industries in the automotive components and support sectors. These operations support many subsidiary industries such as pressed steel, plastics, and leather for car seats.

The Eastern Cape receives a lot of sunlight, and it has areas along its coastline that can easily transfer wind into energy. These and other options in the alternative energy field, including biofuels, are being actively investigated with large investments already having been made.

[Source: Adapted from John Young]

FIGURE 4.2: TYPES OF FARMING



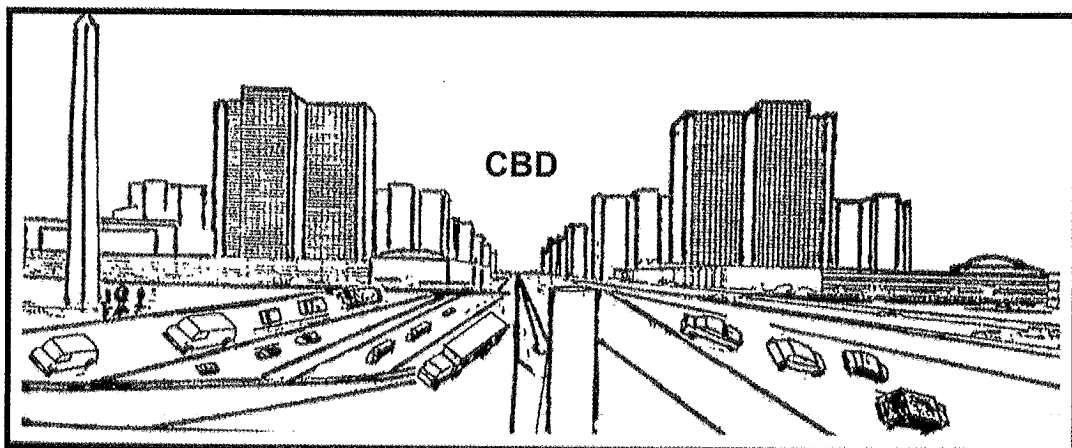
[Source: Adapted from In Search of Geography]

FIGURE 4.3: LAND REFORM IN SOUTH AFRICA

In South Africa, access to land and land ownership was determined first by colonisation and then by apartheid policy. As a result, until 1994, white commercial farmers controlled 80% of the agricultural. Since then the government has been working to redress this distribution through its various land reform programmes. Since 1994, 79 696 claims have been lodged with the Land Claims Court, and 95% of these claims have been settled by 2010. The slow progress of land reform policies have been blamed on the principle of “willing seller, willing buyer” (WSWB). The Land Reform Programme had to change, expand and adapt to overcome criticism and deal with challenges that have arisen.

[Source: Adapted from Platinum Geography]

FIGURE 4.4: THE CBD OF A LARGE CITY



[Source: Adapted from Comparing Regions]

FIGURE 4.5: GENETICALLY MODIFIED (GM) CROP PRODUCTION



[Source: Adapted from projectagent orange.com]

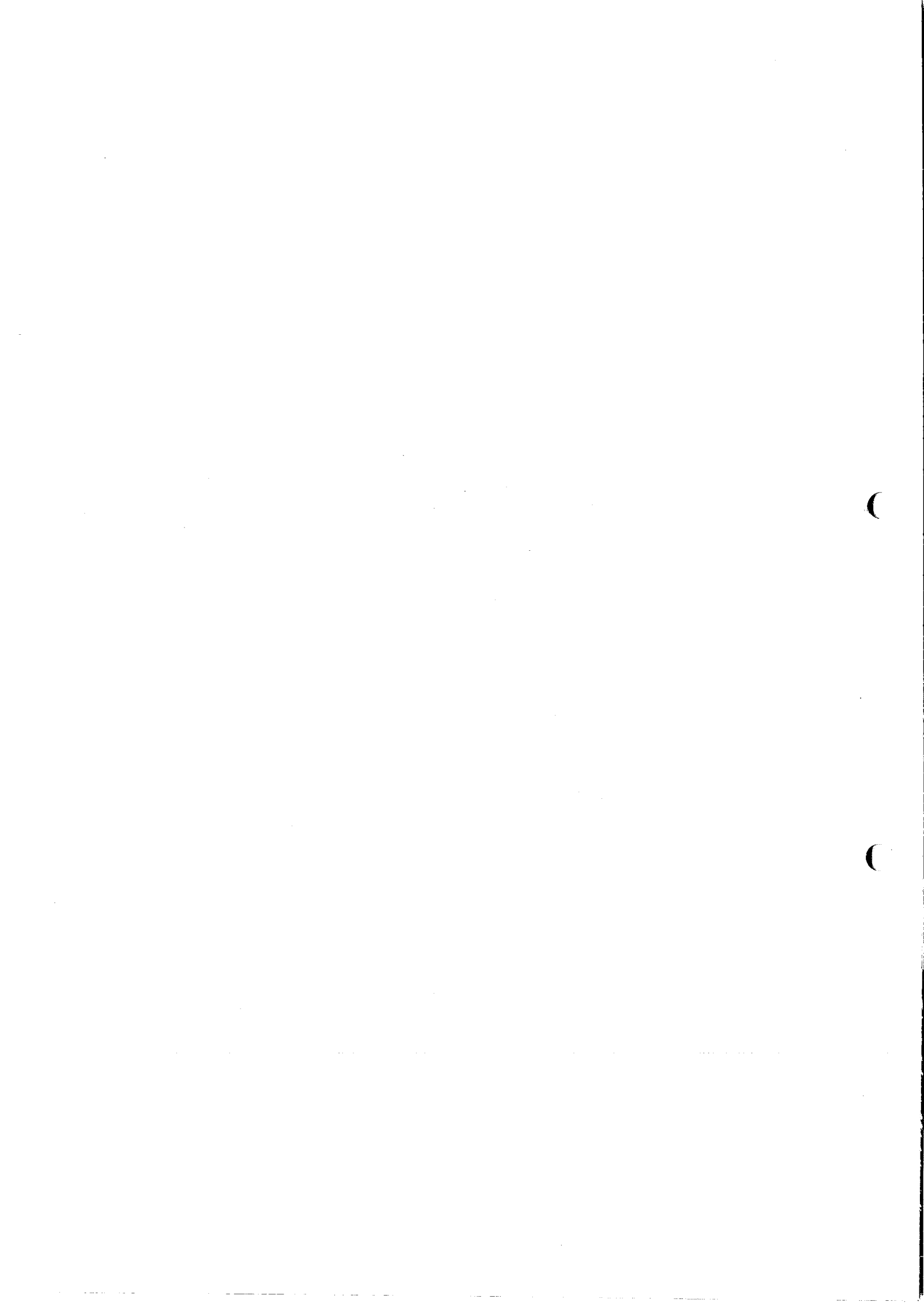
FIGURE 4.6: RICHARDS BAY IDZ

Richards Bay IDZ upholds Richards Bay area for Investments

The Richards Bay Industrial Development Zone (IDZ) on South Africa's Kwazulu-Natal coast has commended its Phase 1A development in preparation for forthcoming investors on (9 September 2011).

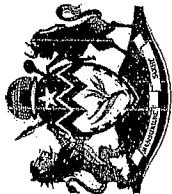
"We are strategically placed – about 500 km from the financial capital of the country and located adjacent to a natural deep sea water port, Richards Bay IDZ chief executive Ike Nxedlana said. He also stated that the Richards Bay IDZ operates within a global context with great potential for development.

[Source: Adapted from SAinforeporter:<http://www.southafrica.info/business/investing/rbidzopens>]



2 GREENBURY

SSingh



Education

KwaZulu-Natal Department of Education
REPUBLIC OF SOUTH AFRICA

GEOGRAPHY P1
MEMORANDUM
SEPTEMBER 2016
PREPARATORY EXAMINATION

NATIONAL SENIOR CERTIFICATE

GRADE 12

MARKS: 225

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Geography/P1

NSC – Memorandum

September 2016 Preparatory Examination

Kaper

SECTION A: CLIMATE AND WEATHER AND GEOMORPHOLOGY

QUESTION 1

ORIGIN OF A MID-LATITUDE CYCLONE

- 1.1
 - 1.1.1 C – 55° – 65° ✓
 - 1.1.2 A – polar ✓
 - 1.1.3 B – convergence and uplift ✓
 - 1.1.4 A – westerly ✓
 - 1.1.5 B – cold and dry ✓
 - 1.1.6 D – west to east ✓
 - 1.1.7 A – initial wave ✓
- (7 x 1) (7)

C A B / A B D / A B

1.2

- 1.2.1 E delta ✓
 - 1.2.2 D infiltration ✓
 - 1.2.3 F water table ✓
 - 1.2.4 G v-shaped valley ✓
 - 1.2.5 H run-off ✓
 - 1.2.6 C base flow ✓
 - 1.2.7 A ox-bow lake ✓
 - 1.2.8 B waterfall ✓
- (8 x 1) (8)

E D F / G H U / A B

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1.3 HURRICANE

1.3.1 Presence of the eye / Texas Coast/ USA✓
[ANY ONE] (1 x 1) (1)

1.3.2 Clear evacuation routes are drawn up ✓
Evacuation centres are set up ✓
Access to satellite imagery✓
Have remote sensing devices✓
Have air and land radar✓
Emergency rescue services✓
Extensive medical and paramedic provision✓
Storm warden patrols available✓
Extensive seawalls built✓
Houses built on stilts✓
Strong building materials✓
Flood proofing of buildings✓
Good communication network✓
[ANY TWO] (2 x 1) (2)

1.3.3 The eye is well developed/ Intensified✓✓
Large diameter✓✓
[ANY ONE] (1 x 2) (2)

1.3.4 The entire hurricane can be easily viewed from space ✓✓
Large and inaccessible areas can be monitored ✓✓
Data can be received in real time✓✓
Data can be monitored every hour✓✓
Can help to determine the intensity trends of tropical cyclones✓✓
Images can be used to better determine other information such as speed, temperature and wind direction✓✓
Can be used to predict path based on observed trends✓✓
Early warning and precautions can be established✓✓
Establish the magnitude of of disaster management operations✓✓
[ANY ONE] (1 x 2) (2)

1.3.5 Less moisture over land✓✓
Friction over land✓✓
[ANY ONE] (1 x 2) (2)

1.3.6 TEXAS-United States of America

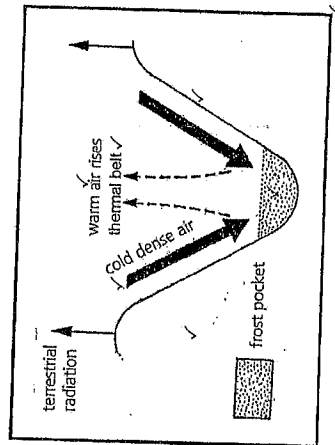
USA has more and better developed infrastructure ✓✓
Warning systems are readily available✓✓
Earlier evacuations can take place✓✓
Clear evacuation routes are drawn up✓✓
Evacuation centres are set up✓✓
Access to satellite imagery✓✓
Have remote sensing devices✓✓
Have air and land radar✓✓
Better emergency rescue services✓✓
Extensive medical and paramedic provision✓✓
Storm warden patrols available✓✓
Extensive seawalls built✓✓
Houses built on stilts✓✓
Strong building materials✓✓
Flood proofing of buildings✓✓
Good communication network✓✓

Maduro- Mozambique
Has little and poorly developed infrastructure✓✓
Warning systems are not able to reach the majority of the population as some of them are in deep rural areas✓✓
Few early evacuations can take place✓✓
Not enough rescue services✓✓
Few health facilities are available✓✓
[ANY FOUR] (4 x 2) (8)

[Candidates must refer to some aspects for the USA and some for Mozambique OR can answer as comparison.] Learners must refer to the LOSS of LIVES.

VALLEY CLIMATE AND ASPECT

- 1.4 1.4.1 The angle in which a slope faces in relation to the rays of the sun (1 x 1) (1)
(Concept)
- 1.4.2 North facing slopes receives direct insolation/sunlight (1 x 1) (1)
- 1.4.3 Learners can be given full credit of three marks for any three variables.
[However, learners must include katabatic wind direction to score maximum marks]



- 1.4.4 Cloudless conditions ✓
Calm conditions ✓
Windless conditions ✓
Dewpoint temperature must drop below freezing point ✓
(3 x 1) (3)
[ANY TWO]
- 1.4.5 A - Will favour the growing of crops that require warmer conditions ✓
Crops that will grow under drier conditions ✓
(e.g. thin skinned deciduous fruits e.g. apples and pears) ✓
B - Will favour the growing of crops that require cooler conditions ✓
Plants that need high soil moisture content ✓
(e.g. thick skinned citrus fruits e.g. oranges and lemons) ✓
(2 x 2) (4)
[ANY ONE for each of A AND B]

RIVER PROFILE

- 1.5 1.5.1 Side view of a river from the source to the mouth (1 x 1) (1)
(Concept)
- 1.5.2 Dix Mountain headwaters (1 x 1) (1)
- 1.5.3 Splitrock Falls ✓
Wadhams Falls ✓
Willisboro Falls ✓
[ANY ONE] (1 x 1) (1)
- 1.5.4 The upper course is steep ✓
velocity is great ✓
downward erosion is predominant ✓
[ANY TWO] (2 x 2) (4)
- 1.5.5 The river gains energy and downward erosion increases ✓
The river will erode a deep valley or gorge ✓
A knickpoint/waterfall will develop ✓
The river becomes ungraded ✓
A valley within a valley will develop ✓
Terraces will form either side of the river ✓
A meandering stream will form incised meanders ✓
Rapids may develop ✓
[ANY FOUR] (4 x 2) (8)

DRAINAGE BASIN

1.6

1.6.1 The entire area drained by a river and its tributaries ✓ (1 x 1) (1)
(Concept)

1.6.2 Dendritic ✓ (1 x 1) (1)

1.6.3 Watershed/drainage divide ✓ (1 x 1) (1)

1.6.4 good/high rainfall increases surface run-off ✓
impermeable rock that reduces infiltration and increases run-off ✓
low vegetation cover (from overgrazing; deforestation) less
infiltration more run-off ✓
steeper gradient thus no time for infiltration and more quick run-off ✓
moist soils thus no infiltration and more run-off ✓
[ANY TWO] (2 x 2) (4)

1.6.5 3rd order ✓ (1 x 2) (2)

1.6.6 (a) Stream order will increase ✓
[ANY ONE] (1 x 2) (2)
(b) More rain will result in greater run-off ✓
More first order streams will develop ✓
Resulting in further increase of all stream orders
downstream ✓
[ANY TWO] (2 x 2) (4)
[75]

QUESTION 2

2.1 SYNOPTIC WEATHER MAP

2.1.1 High land temperatures ✓
South Atlantic and South Indian Highs have moved southwards ✓
Presence of a tropical cyclone ✓
Presence of a thermal low ✓
[ANY ONE]

2.1.2 Weak/Gentle ✓

2.1.3 B - South Atlantic High ✓

C - South Indian High ✓

2.1.4 (a) Tropical Cyclone ✓

(b) 1 ✓

(c) ~~30 degrees south~~ 5 degrees to 25 degrees south. ✓

(d) east to west/westerly ✓

2.2 DRAINAGE PATTERNS

2.2.1 sedimentary ✓

2.2.2 middle ✓

2.2.3 folding ✓

2.2.4 same ✓

2.2.5 gorge ✓

2.2.6 older ✓

2.2.7 antecedent ✓

(7 x 1) (7)

HEAT ISLAND AND POLLUTION DOME

- 2.3.1 Layer of polluted air over a city trapped below inversion layer ✓ (1 x 1) (1)
[Concept]
- 2.3.2 3 degrees ✓ / 1 degree / the rural area is cooler. (1 x 1) (1)
- 2.3.3 Rural areas have more vegetation, therefore larger evapo-transpiration rates and more energy absorbed, therefore making it cooler. ✓ ✓ (1 x 2) (2)
[ANY ONE]
- 2.3.4 More rainfall over the city as compared to the rural area ✓ (1 x 2) (2)
- 2.3.5 Poor quality rain because of pollution ✓
Production of acid rain ✓ ✓
[ANY ONE]
- 2.3.6 The pollution dome is smaller (closer to the surface) at night ✓
Pollution concentration increases ✓ ✓
The polluted air sinks towards the surface because of the dense cold air above the city ✓ ✓
Fewer heat generating activities at night ✓ ✓ reduces convection above the city ✓ ✓
Pollution dome closer to the surface limits influx of air from surrounding rural areas to disperse pollutants ✓ ✓
[ANY FOUR]

INVERSION LAYER

- 2.4.1 Layer of dense air in which temperature increases with altitude ✓
[Concept] (1 x 1) (1)
- 2.4.2 2.4 A ✓ (1 x 1) (1)
- 2.4.3 Inversion above escarpment in summer and lower in winter ✓
Uplift of air above the plateau.
Moist air can reach interior in summer not in winter ✓ ✓
Condensation and cloud cover ✓ ✓
Weak subsiding air ✓ ✓
[ANY ONE]
- 2.4.4 Continental high/Kalahari high ✓
- 2.4.5 Inversion layer above the escarpment ✓ ✓
Allows influx of moist air to the interior ✓ ✓
More condensation ✓ ✓
More cloud formation ✓ ✓
More precipitation ✓ ✓
[ANY TWO] (2 x 2) (4)

- 2.4.6 Dams levels may be high or may overflow during periods of heavy rainfall during summer causing floods that may wash away crops ✓ ✓
Dam levels may be very low during winter and during periods of drought resulting in low crop production and crop failure ✓ ✓
Farming activities need to be planned according to the availability of water in summer and winter ✓ ✓
Farmers will have to consider the growing of drought resistant crops in the dry season ✓ ✓
Construction of dams to control flooding during periods of heavy rainfall to prevent the washing away of agricultural produce ✓ ✓
[ANY TWO] (2 x 2) (4)

RIVER CAPTURE

- 2.5.1 When a more powerful river captures the headwaters of a less powerful river ✓
(Concept) (1 x 1) (1)
- 2.5.2 B - Misfit stream/Beheaded stream/ Captured Stream/Pirated Stream ✓ (2 x 1) (2)
C - Elbow of capture ✓
- 2.5.3 More erosive energy that led to more headward erosion ✓ ✓
Has steeper gradient ✓ ✓
Flowing over softer rocks ✓ ✓
Receives higher rainfall ✓ ✓
[ANY TWO] (2 x 2) (4)
- 2.5.4 Erosive capacity decreases ✓ ✓
Volume decreases ✓ ✓
Deposition increases within the river channel ✓ ✓
(2 x 2) (4)
- 2.5.5 Less water available for agriculture ✓ ✓
Less deposition on the floodplain therefore drop in soil fertility ✓ ✓
Decrease in production ✓ ✓
Economic decline ✓ ✓
[ANY TWO] (2 x 2) (4)

KAT RIVER VALLEY CATCHMENT

- 2.6.1 Ensuring that the catchment area is maintained in a sustainable manner ✓
(Concept) (1 x 1) (1)
- 2.6.2 Soil erosion ✓ (1 x 1) (1)
- 2.6.3 The project intended to address the gully erosion problem, which was prominent in the upper and middle reaches of the catchment. Rehabilitation of the catchment area. (1 x 1) (1)

2.6.4 Community identified the problems ✓✓

For the community to have increased awareness and realize the importance of protecting scarce water supplies for the future ✓✓
For the community to own the process/feel part of it ✓✓
Employment of local community ✓✓
Use of indigenous knowledge to solve problems in the area ✓✓
[ANY TWO]

(2 x 2) (4)

2.6.5 Strategies to Rectify Damage

Fencing or protecting the Kat river catchment area/buffering ✓✓
Prevent deforestation ✓✓
Revegetate with indigenous plants/afforestation ✓✓
Protection against soil erosion ✓✓
Treat industrial effluents before released into the river ✓✓
Treat sewage before released into the river ✓✓
Use natural fertilizers/compost ✓✓
Practice scientific/proper farming methods ✓✓
Dredging of the dam, to reduce siltation.

Strategies to Reduce Water Stress:

Monitor water usage by various economic sectors ✓✓
Legislation on water usage ✓✓
Raise public awareness ✓✓
More research into the use of groundwater ✓✓
Water restrictions and fines ✓✓

[Learner must include both strategies to rectify damage AND reduce water stress]

[ANY FOUR]

(4 x 2) (8)

1751

15

SECTION B: RURAL AND URBAN SETTLEMENT, ECONOMIC GEOGRAPHY OF SOUTH AFRICA

QUESTION 3

3.1

3.1.1 A - nucleated ✓/clustered ✓
D - dispersed ✓/isolated ✓

3.1.2 B - linear ✓

3.1.3 B - mountain / river/ road ✓

3.1.4 C ✓

3.1.5 Settlement is near a source of water. ✓

3.1.6 Relief/Aspect ✓

(7 x 1) (7)

3.2

3.2.1 B - Labour intensive ✓

3.2.2 E - Industrial decentralisation ✓

3.2.3 D - Capital intensive ✓

3.2.4 A - Tertiary ✓

3.2.5 C - Trade ✓

3.2.6 G - Gross domestic product ✓

3.2.7 I - Quaternary ✓

3.2.8 F - Footloose ✓

(8 x 1) (8)

3.3 RURAL URBAN MIGRATION

3.3.1 Rural urban migration refers to the movement of people from the rural areas (countryside) to the urban areas (cities) ✓
(1 x 1) (1)
[Concept]

- 3.3.2 Unemployment ✓✓
Mechanisation ✓✓
Low salaries ✓✓
High production costs ✓✓
Loss of soil fertility ✓✓
Consolidation of farms ✓✓
Climate change (justify) ✓✓
Lack of medical and health services ✓✓
Lack of basic services ✓✓
Poverty ✓✓
Displaced as a result of droughts and floods ✓✓
Unrest and the lack of security ✓✓
Food insecurity ✓✓
Lack of social amenities and facilities/boredom ✓✓
[ANY ONE]

3.3.3 Use farming practices that can cope with climate changes e.g. use of drought resistant crops, efficient use of water ✓✓
Use scientific technology to monitor environmental conditions ✓✓
Get early warning systems for plant and animal diseases ✓✓
Provide training courses for upcoming farmers, to improve skills ✓✓
Incentives for farmers to stay on farms ✓✓
Communal ownership of land should be changed to individual ownership as it is not productive ✓✓
Improve access to capital for farmers ✓✓
Development of infrastructure ✓✓
[Any TWO] (2 x 2) (4)

3.3.4 Decreasing number of people (rural depopulation) ✓✓
Skilled and economically active people are more likely to move to cities, leaving behind a larger old population ✓✓
Basic services such as shops and schools close down ✓✓
Production decreases and this affects the economy ✓✓
Buildings and farms are abandoned, giving rise to 'ghost settlements' ✓✓
Family units are broken down, example, when parents leave their children with grandparents so that they can work in the urban areas ✓✓
Resources become underutilized ✓✓
[Any FOUR] (4 x 2) (8)

3.4 URBAN SPRAWL

3.4.1 Urban sprawl refers to the formless expansion and uncontrolled expansion of an urban area ✓
[Concept] (1 x 1) (1)

3.4.2 Urban sprawl is increasing rapidly ✓✓
Houses are being built closer together, there are extensions to single storeyed structures vertically and the development flats ✓✓
Urban people are very happy/eager to purchase land in surrounding rural areas ✓✓
Farm land being lost ✓✓
[ANY ONE] (1 x 2) (2)

3.4.3 Land is cheaper ✓✓
Reduced crime rate ✓✓
Reduced traffic congestion and pollution ✓✓
Rural atmosphere ✓✓
Overcrowding and stress in the city ✓✓
[ANY ONE] (1 x 2) (2)

3.4.4 Farmers are unhappy because they are losing their farms far too rapidly (at the expense of urban dwellers) ✓✓
Urban sprawl is impacting negatively on space in the surrounding rural areas ✓✓
Urban dwellers are invading into valuable farmland ✓✓
[ANY TWO] (2 x 2) (4)

3.4.5 Service delivery becomes difficult ✓✓
Traffic congestion becomes a problem ✓✓
Overcrowding leads to poor and unhygienic conditions ✓✓
Pollution of cities presents a health hazard to surrounding areas ✓✓
Social ills become prevalent, example crime, prostitution etc. ✓✓
Leads to acute shortage of space/shortage of land ✓✓
Waste management becomes difficult ✓✓
[ANY ONE] (1 x 2) (2)

3.4.6 Greenbelts: These are developed on the boundary of an urban settlement to prevent formless expansion of cities ✓✓
Development of New Towns ✓✓
These towns are designed in such a manner to reduce overcrowding, congestion, pollution and other related problems experienced in an urban area ✓✓
Counter urbanisation measures ✓✓
Rural development and upgrade ✓✓
Creation of Satellite towns ✓✓
Industrial decentralisation away from urban areas ✓✓
[ANY TWO] (2 x 2) (4)

3.5 SOUTH AFRICAN MINING AND QUARRYING

- 3.5.1 Primary ✓ (1 x 1) (1)
- 3.5.2 There was a marked decline/rapid decrease/downturn in commodity prices in the mining industry ✓ (1 x 1) (1)
- 3.5.3 Mining makes a great and significant contribution to the national economy of the country ✓
Mining contributes to the development of infrastructure ✓
Contributes to job opportunities ✓
Attracts foreign skills and investment ✓
Leads to the development of secondary industries ✓
Contributes to foreign trade ✓ (1 x 1) (1)
[ANY ONE]
- 3.5.4 Earns foreign exchange from export of various minerals ✓ ✓
Contributes to the GDP- stimulates the growth rate of a country ✓ ✓
Job creation and skills development – a large percentage of the labour force is employed by this sector ✓ ✓
Infrastructure development- mining and quarrying has led to the development of infrastructure of the country ✓ ✓
Created large scale demand for tools and machinery in factories ✓ ✓
Multiplier effect in the economy- stimulates growth in financial services, engineering services, electricity services, ports, investments etc ✓ ✓
Profits earned by mines are taxed ✓ ✓ (2 x 2) (4)
[ANY TWO]
- 3.5.5 Labour:

Mines employ a large number of migrant labourers, which makes this labour force erratic (unstable) ✓ ✓
New labourers have to be recruited all the time ✓ ✓
Labourers frequently demand for higher wages and often go on strikes ✓ ✓
If their demands are not met, this affects productivity negatively ✓ ✓
Mine disruptions have a negative impact on foreign investment ✓ ✓
Low wage increases cause miners to quit their jobs resulting in the closure of mines ✓ ✓
HIV/AIDS has caused the loss of experienced mine workers ✓ ✓
Costly to replace and train new labourers ✓ ✓

Mine Hazards:
Flooding endangers lives in underground/shaft mining ✓ ✓
Fires has caused much damage in mines ✓ ✓
Some miners contract respiratory disease as a result of the inhaling of mine dust ✓ ✓
Possible gas leaks may lead to explosions underground ✓ ✓
Rockfall may trap and kill mine workers underground ✓ ✓
Dangerous to work with heavy equipment underground ✓ ✓
High temperatures in mining areas are not suitable for working conditions ✓ ✓
[Any FOUR] (4 x 2) (8)

[Must discuss both labour and mine hazards included in the answer]

3.6 PORT ELIZABETH UTENHAGE INDUSTRIAL REGION

- 3.6.1 automotive/ motor industry/ assembly of motor vehicles/textile and leather processing ✓ (1 x 1) (1)
- 3.6.2 Refers to other related suppliers and manufacturers in the automotive industries/ supplementary industries/ support industries ✓
[Concept] (1 x 1) (1)
- 3.6.3 plastics ✓
pressed steel ✓
leather for car seats ✓
[ANY ONE] (1 x 1) (1)
- 3.6.4 The presence of the harbour at Port Elizabeth facilitates the import of raw materials and the export of manufactured goods ✓ ✓
It has an excellent location in terms of overseas markets ✓ ✓
The province boasts of three major ports ✓ ✓
It has a strategically important location in respect of the world and African markets ✓ ✓ (2 x 2) (4)
[ANY TWO]
- 3.6.5 Can research the following options with regard to power stations:
Eastern Cape receives a lot of sunlight, they can use solar power as an alternative source of clean energy, to overcome the cost of electricity ✓ ✓
It's a region which receives very strong south easterly winds, therefore wind farms will be a viable option ✓ ✓
This region has a high concentration of cattle farming, will be able to enhance energy through biogas ✓ ✓
Wave power can be harnessed from nearby coastal areas ✓ ✓
[ANY TWO] (2 x 2) (4)
- 3.6.6 Provides job opportunities to the dense population of Eastern Cape ✓ ✓
The Coega project has stimulated industrial expansion, through local and foreign investment ✓ ✓
It has attracted numerous direct foreign investments ✓ ✓
This region has an excellent transport systems that facilitates the movement of raw material and manufactured goods ✓ ✓
It contributes positively to the Gross Geographical Product (GGP) of the Eastern Cape ✓ ✓ (2 x 2) (4)
[ANY TWO]

[75]

QUESTION 4

- 4.1
 - 4.1.1 metropolis✓
 - 4.1.2 town✓
 - 4.1.3 conurbation✓
 - 4.1.4 megalopolis✓
 - 4.1.5 urban expansion✓
 - 4.1.6 urban profile✓
 - 4.1.7 urban growth✓
 - 4.1.8 counter-urbanisation✓
- 4.2
 - 4.2.1 A ✓
 - 4.2.2 A ✓
 - 4.2.3 B ✓
 - 4.2.4 B ✓
 - 4.2.5 A ✓
 - 4.2.6 A/B ✓
 - 4.2.7 B ✓

4.3 LAND REFORM IN SOUTH AFRICA

- 4.3.1 colonisation✓
apartheid✓
[ANY ONE] (1 x 1) (1)
- 4.3.2 To address injustices of apartheid✓✓
To promote economic growth✓✓
For national reconciliation and stability✓✓
To alleviate poverty✓✓
The transfer of agricultural land to Black people who cannot afford it✓✓
[ANY TWO] (2 x 2) (4)
- 4.3.3 Both the seller and the buyer of the land must agree to the terms and conditions of sale of the land✓✓
[Concept] (1 x 2) (2)
- 4.3.4 In the absence of compulsion (pressure) most land owners have been reluctant to sell to the state✓✓
There has been collusion between sellers, land evaluators and government officials/corruption, where market prices were inflated and purchases made very expensive✓✓
WSWB has resulted in land reform being delayed✓✓
[ANY TWO] (2 x 2) (4)
- 4.3.5 Land reform has not stimulated the economic growth of rural areas✓✓
Land reform has not alleviated poverty in the rural areas nor has it improved the quality of life in rural areas✓✓
There has been disagreement between government and traditional leaders in terms of restoring land✓✓
Very costly process, time consuming to solve land claim disputes✓✓
Lack of training and support for new land owners✓✓
Limited financial assistance✓✓
[ANY TWO] (2 x 2) (4)

(7 x 1) (7)

(8 x 1) (8)

4.4 CENTRAL BUSINESS DISTRICT OF A LARGE CITY

- 4.4.1 CBD – Central Business District ✓ (1 x 1) (1)
- 4.4.2 (a) Many roads leading in and out of the city ✓ (1 x 1) (1)
- (b) Presence of high building density ✓ (1 x 1) (1)
Many tall buildings ✓
[ANY ONE]
- 4.4.3 A large number of people work in this land use zone during the day ✓
At night people vacate the city ✓
A large number of informal traders are found in the city during the day ✓
Few people live in the CBD ✓
Most formal business activities operate during the day ✓
[ANY TWO] (2 x 2) (4)
- 4.4.4 In the CBD incompatible functions must be segregated ✓
There must be relocation of functions that are incompatible ✓
Urban planning must be sustainable ✓
Provision must be made for the anticipated influx of people from the rural areas ✓
Transport development must take into account the ever increasing volume of traffic ✓
Improve public transport into the CBD ✓
Reduction in traffic into the CBD e.g. park and ride ✓
The development of green zones (parks) to make the CBD more appealing ✓
Old buildings of the inner city must be demolished and rebuilt or they can be renovated (gentrification/facadeism/invasion and succession) ✓
Urban renewal projects to make the CBD more attractive. ✓
Improve cleanliness in the CBD ✓
Greater policing of the CBD to reduce the high crime rate ✓
[ANY FOUR] (4 x 2) (8)

4.5 FOOD INSECURITY IN SOUTH AFRICA

- 4.5.1 When people in a country do not have access to enough food/sufficient supplies ✓
[Concept] (1 x 1) (1)
- 4.5.2 Genetically modified food are foods that are modified in a laboratory so that they are more resistant to herbicides and pests ✓
[Concept] (1 x 1) (1)
- 4.5.3 annoying pests ✓ (1 x 1) (1)
- 4.5.4 Their concerns are directed to the possible disadvantages of GM foods ✓
its effects on the environment ✓
The long term effects of GM foods on man's health that is unknown ✓
To ensure proper implementation of the GM food programme ✓
[ANY TWO] (2 x 2) (4)
- 4.5.5 They are able to survive in a greater range of climatic conditions, thereby promoting food security ✓
GM foods have far longer storage life and can be available in times of need ✓
They have a higher resistance to drought and have cold tolerance ✓
Produces larger crop yields ensuring sufficient food supplies ✓
Pest resistant ensuring food security ✓
[ANY TWO] (2 x 2) (4)
- 4.5.6 Monoculture: planting the same crop over and over causes the same nutrient to be extracted, thereby hindering high food production levels ✓
Cultivation on marginal areas causes greater accelerated soil erosion, limiting agricultural output ✓
Overcultivation: planting far too much crop on a small piece of land, causes soil exhaustion, thereby limiting production ✓
Downslope farming: Results in valuable topsoil being washed away ✓
Overstocking/overgrazing: Reduces the carrying capacity of the land making it vulnerable to soil degradation. ✓
[ANY TWO] (2 x 2) (4)

4.6 RICHARDS BAY INDUSTRIAL DEVELOPMENT ZONE

- 4.6.1 Industrial Development Zone is an area located close to an international airport or a harbour. IDZ has been identified by government to stimulate economic growth through investment in industries ✓
[Concept] (1 x 1) (1)
- 4.6.2 The presence of a deep-water harbour ✓
Close proximity (500km) from the financial capital ✓ (2 x 1) (2)
- 4.6.3 IDZs promote industrial development and SDIs will link IDZs ✓
SDIs promote further industrial development along transport links ✓
[ANY ONE] (1 x 2) (2)
- 4.6.4 Development of infrastructure in undeveloped communities in Richards Bay ✓
Responsible for job creation and promotes employment ✓
Provides skills development ✓
Improves standards of living for communities ✓
Promotes economic growth for nearby local communities ✓
[ANY ONE] (1 x 2) (2)
- 4.6.5 Offers direct link to international airports or port ✓
More ports make overseas markets available ✓
Close to financial capital of the country ✓
large domestic markets ✓
World class infrastructure especially to attract tenants ✓
Government incentive schemes ✓
Reduced taxes and exemption for some activities or products ✓
Duty free benefits on raw materials that are imported ✓
Promote competitiveness of the manufacturing sector ✓
Encourage the development of export-orientated manufacturing industries ✓
Encourage the processing of local resources for export ✓
Attract foreign and local investment ✓
[ANY FOUR] (4 x 2) (8)

[73]

GRAND TOTAL: 225

* NB: Question 4.6.3. was removed due to a technical error. Question 4 will be calculated out of 73 marks and thereafter re-calculated back to 75 marks.

$\frac{73}{75} \times 75$

