



Province of the  
**EASTERN CAPE**  
EDUCATION

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 12**

**SEPTEMBER 2011**

**GEOGRAPHY P1**

**MARKS: 300**

**TIME: 3 hours**



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This question paper consists of 15 pages.

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**INSTRUCTIONS AND INFORMATION**

1. This question paper consists of TWO sections, namely SECTION A and SECTION B.
2. Answer THREE questions to be chosen as follows:  
  
ONE question from SECTION A  
  
ONE question from SECTION B  
  
A THIRD question from SECTION A or SECTION B. (Which has NOT been answered already.)
3. All diagrams are included in the ANNEXURE.
4. Leave a line between subsections answered.
5. Start EACH question on 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. Where possible, illustrate your answer with labelled diagrams.
9. Write neatly and legible.
10. Mark allocation: If marks are given as follows –  $3 \times 2 = 6$ , it means that THREE facts should be given for TWO marks each.

If marks are given as follows –  $3 \times 1 = 3$ , it means that THREE facts should be given for ONE mark each. Essay type questions must be answered in FULL SENTENCES. LISTING will result in marks being deducted.

**SECTION A: PHYSICAL GEOGRAPHY: CLIMATE AND WEATHER, FLUVIAL PROCESSES AND STRUCTURAL LANDFORMS****QUESTION 1: [LO1.2 – LO1.5] [LO2.1 – LO2.4] [LO3.1 – LO3.2]**

1.1 Refer to FIGURE 1.1, which is a contour map of a river valley, with houses B and C receiving the lowest temperatures. Answer the following questions:

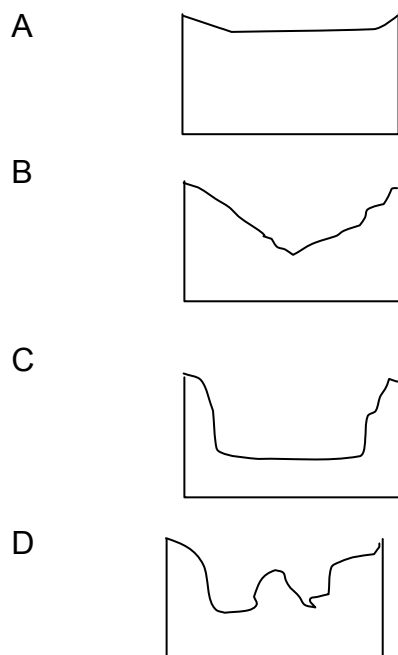
- 1.1.1 Is this valley in the southern or northern hemisphere?
- 1.1.2 Which area in the valley, E or X will experience anabatic breezes?
- 1.1.3 Which fruit would you plant at S; apples or oranges?
- 1.1.4 Will a katabatic breeze blow from S to R, or R to S?
- 1.1.5 Which area, D or Y, is more appropriate for pasturage? (5 x 2) (10)

1.2 The source of the Eerste River is in the Groot (Great) Drakenstein mountains in the Western Cape and flows into the sea at False Bay. The longitudinal profile (FIGURE 1.2) shows a smooth concave slope.

Four options are given as possible answers to the following questions. Choose the correct answer and write only the letter (A – D) next to the question number (1.2.1 – 1.2.5) in your answer book, for example 1.2.6 B.

- 1.2.1 The stream load which will be dominant between A – B is the ...
- A saltation load.
  - B traction load.
  - C suspension load.
  - D solution.
- 1.2.2 The landform which is the most likely to occur between B – C will be ...
- A deltas.
  - B alluvial fans.
  - C rapids.
  - D floodplains.

1.2.3 The crossprofile of the river between C – D will show ONE of the following characteristics:



1.2.4 The stream order of the river at D is ...

- A 5.
- B 3.
- C 2.
- D 4.

1.2.5 The underlying rocks in this drainage basin are ...

- A folded rocks.
- B domelike features.
- C horizontally layered rocks.
- D igneous rocks with cracks and joints. (5 x 2) (10)

1.3 FIGURE 1.3 A illustrates the surface pressure systems and winds in July. FIGURES 1.3 B and C represent the effects of the pressure systems over South Africa. Answer the following questions.

- 1.3.1 Identify pressure belt B and explain why the pressure is constantly above 1020 hectopascal. (2 x 2) (4)
- 1.3.2 Through the use of FIGURE 1.3 A, identify the windbelts responsible for the development of mid-latitude cyclone X (FIGURE 1.3 B). (2 x 2) (4)
- 1.3.3 The pressure belts cause different climatic conditions during winter and summer in the Western Cape. Explain the impact of this situation on wine farming in the area. (4 x 2) (8)

- 1.4 Study the synoptic weather map (FIGURE 1.4 A) as well as the Fire Danger Rating System (FIGURE 1.4 B) and answer the following questions.
- 1.4.1 The synoptic weather map illustrates typical winter conditions. Give TWO reasons, from the map, to substantiate this statement. (2 x 2) (4)
- 1.4.2 Explain the difference in air temperatures between weather stations M and N. (2 x 2) (4)
- 1.4.3 Declare the influence of high pressure A on the weather of the central interior of South Africa. (2 x 2) (4)
- 1.4.4 The area at P is experiencing bergwind conditions. Write an essay ( $\pm 12$  lines) in which the following aspects, of the influence of bergwinds, are discussed:
- I. How the synoptic weather map illustrates the favourable conditions for the occurrence of bergwinds.
  - II. Use the FIRE DANGER RATING SYSTEM (FIGURE 1.4 B) and warn the local inhabitants about the impact of veldfires under DANGEROUS CONDITIONS.
  - III. Provide a few ideas to the inhabitants on how to reduce the risks of veldfires. (6 x 2)
- 1.5 Study FIGURE 1.5, which represent intrusive volcanic features, and answer the following questions:
- 1.5.1 Name the type of rocks these landforms are associated with. (1 x 2) (2)
- 1.5.2 Give the name of a town in South Africa where landform A can be found. (1 x 2) (2)
- 1.5.3 Identify ONE difference between intrusive features B and C. (2 x 2) (4)
- 1.5.4 Clarify the development of drainage patterns I and II respectively. (2 x 2) (4)
- 1.5.5 Comment on the importance of these intrusive landforms for human activities. (3 x 2) (6)

- 1.6 Read the case study (FIGURE 1.6) on the Laingsburg flood disaster and answer the following questions:
- 1.6.1 “The entire drainage basin of the Buffels River received rainfall.”  
What is meant by this statement? (1 x 2) (2)
- 1.6.2 Name TWO watersheds in the Buffels River drainage basin. (2 x 2) (4)
- 1.6.3 Draw a hidrograph of the Buffels River drainage basin as it is described in the case study. (2 x 2) (4)
- 1.6.4 In an essay (±12 lines), discuss the reasons for the flood disaster in Laingsburg. In your essay you must refer to both the PHYSICAL and HUMAN factors which contributed to the disaster and also provide POSSIBLE SOLUTIONS to reduce the effects of flooding. (6 x 2) (12)
- [100]**

**QUESTION 2: [LO1.2 – LO1.5] [LO2.1 – LO2.4] [LO3.1 – LO3.2]**

- 2.1 Study the path of Tropical cyclone Gamede (FIGURE 2.1 A) from 02/01/2005 until it dissipates on the 09/01/2005. FIGURE 2.1 B illustrates the eye of a weather system. Answer the following questions where FOUR options are given as possible correct answers. Write only the letter (A – D) of your choice next to the question number (2.1.1 – 2.1.5) in your ANSWERBOOK, for example 2.1 6 A.

2.1.1 Which general environmental condition could NOT have prevailed east of Mauritius during early January?

- A Sea temperatures above 27 °C
- B High pressure which rises more
- C Upper air divergence
- D Unstable atmospheric conditions

2.1.2 The name of the next tropical cyclone that will appear in this region will be ...

- A Anne.
- B Geraldine.
- C Katrina.
- D Hester.

2.1.3 Imagine you are part of the disaster management team in the area. Which ONE of the following prevention measures will NOT be part of your advice to the inhabitants of the north coast of KwaZulu-Natal?

- A Sudden calm conditions indicate the end of the storm.
- B Keep a battery operated radio switched on during the storm.
- C Move immediately out of low lying areas.
- D Stay inside the house for as long as possible.

2.1.4 The worst weather conditions will be experienced at number ... on the satellite image.

- A A
- B B
- C C
- D D

2.1.5 The local name of the weather system in FIGURE 2.1 B will most probably be ...

- A willie-wallies.
- B tropical cyclones.
- C coldfronts.
- D hurricanes

(5 x 2) (10)

- 2.2 By using FIGURE 2.2, provide the correct letter from the sketch for the following features:
- 2.2.1 Floodplain
  - 2.2.2 Under cut slope
  - 2.2.3 Oxbow lake
  - 2.2.4 Alluvial fan
  - 2.2.5 Braided stream (5 x 2) (10)
- 2.3 Refer to both the extract (FIGURE 2.3 A) and the graph (FIGURE 2.3 B) to answer the following questions.
- 2.3.1 What is the most important purpose of the Kyoto protocol? (1 x 2) (2)
- 2.3.2 As yet, Australia and the USA did not sign the protocol.
- a) Why, according to the extract, is it unfair for these countries not to have signed the protocol? (1 x 2) (2)
  - b) What possible reasons are there for these countries not to have signed the protocol? (2 x 2) (4)
  - c) How much coal do North America, Asia and Australasia together, use? (1 x 2) (2)
- 2.3.3 Evaluate the fairness of the clause which states that developing countries need not to sign the protocol. (2 x 2) (4)
- 2.3.4 Write an essay (±12 lines) about the CAUSES OF GLOBAL WARMING, its IMPACT ON THE ENVIRONMENT and how local inhabitants can contribute to the REDUCTION OF GREENHOUSE GASSES. (6 x 2) (12)
- 2.4 Study FIGURE 2.4, which is an illustration of a pollution dome over an urban area, and answer the following questions:
- 2.4.1 Are the temperatures at B higher or lower than 23 °C? (1 x 2) (2)
- 2.4.2 The area at A is called a heat island. What is meant by this? (1 x 2) (2)
- 2.4.3 Explain how HIGH BUILDINGS influence the temperatures of urban areas. (2 x 2) (4)
- 2.4.4 Comment on how air circulation causes the worst respiratory problems during the night although most human activities occur during the day. (2 x 2) (4)
- 2.4.5 Name ONE weather feature which will decrease the effect of the pollution dome. (1 x 2) (2)



- 2.5 Refer to FIGURE 2.5 which illustrates a geomorphologic process and answer the following questions.
- 2.5.1 Name the main geomorphologic process in the FIGURE. (1 x 2) (2)
- 2.5.2 Name the feature numbered 3, which is the result of the process mentioned in QUESTION 2.5.1. (1 x 2) (2)
- 2.5.3 Which landforms will develop at features 1 and 2 respectively? (2 x 2) (4)
- 2.5.4 The river at 4 experienced rejuvenation. Explain what is meant by this statement. (2 x 2) (4)
- 2.5.5 Name ONE landform which will be identified at number 4, after rejuvenation has taken place. (1 x 2) (2)
- 2.5.6 Comment on the fact that the river numbered 5 developed into a superimposed river. (2 x 2) (4)
- 2.6 Study FIGURE 2.6, a longitudinal profile of a river as well as the accompanying photos which are areas along the course of the river, and answer the following questions.
- 2.6.1 Identify the profile of the river as graded or non-graded. (1 x 1) (1)
- 2.6.2 Name the area of the longitudinal profile where Photo III can be found. (1 x 2) (2)
- 2.6.3 What is the main direction of erosion at Photo III? (1 x 1) (1)
- 2.6.4 Explain why the waterfall would be seen as a temporary erosion basis. (2 x 2) (4)
- 2.6.5 Provide a possible reason why the waterfall developed in this area. (1 x 2) (2)
- 2.6.6 In an essay (±12 lines) evaluate the ECONOMIC INFLUENCE of the Midmar dam (photo III) on the areas marked A, B and C. In your evaluation, you should discuss the areas mentioned individually. (6 x 2) (12)
- [100]**

## SECTION B: PEOPLE AND PLACES, PEOPLE AND THEIR NEEDS, WATER AND FOOD SECURITY

### QUESTION 3: [LO1.2 – LO1.5] [LO2.1 – LO2.4] [LO3.1 – LO3.2]

- 3.1 Choose a term/word from COLUMN B which matches the description in COLUMN A. Write only the letter (A – I) next to the question number (3.1.1 – 3.1.5) in the answer book, for example 3.1.6 J.

COLUMN A		COLUMN B	
3.1.1	Process which occurs when the urban area expands shapeless into the direction of the rural areas	A	Land redistribution
3.1.2	When new land use replaces the original function	B	Refugee
3.1.3	An area on the outskirts of the city where a mixture of functions occur.	C	Urban sprawl
3.1.4	The state buys land and gives this to previously disadvantaged South African citizens	D	Invasion
3.1.5	The chasing away of an unwanted person from a country	E	Urban Decay
		F	Rural-Urban transition zone
		G	Land restitution
		H	Deportation
		I	Zone of decay

(5 x 2) (10)

- 3.2 Indicate whether the following statements are TRUE or FALSE. Write your choice 'true' or 'false' next to the question number (3.2.1 – 3.2.5) in your ANSWERBOOK.

3.2.1 Food insecurity is being promoted by the sustainable use of water.

3.2.2 Multinational countries promote globalisation.

3.2.3 The Lesotho-highland water scheme provides water for the Kwazulu-Natal province.

3.2.4 The informal sector is regulated by the government and includes florists and street vendors.

3.2.5 South Africa imports manufactured motor parts. (5 x 2) (10)

- 3.3 Refer to FIGURES 3.3 A and 3.3 B, which shows the changes of a settlement from 1950 to 2000, and answer the following questions.
- 3.3.1 Identify the shape of the settlement northwest of the bridge in 1950. (1 x 2) (2)
- 3.3.2 Distinguish between settlements A and B, with specific reference to their functions. (2 x 2) (4)
- 3.3.3 Name ONE factor which encouraged the sitting of this settlement. (1 x 2) (2)
- 3.3.4 Several improvements have been made in the area to ensure it remains sustainable. At the same, this restricted rural-urban migration. Name and discuss ONE of these improvements. (2 x 2) (4)
- 3.3.5 Write an essay ( $\pm 12$  lines) about the changes that occurred in the area. You must: (12)
- (i) Name these changes.
- (ii) Analyse these changes on the environment. (6 x 2) (12)
- 3.4 FIGURE 3.4 outlines the factors which influence the development of the PWV industrial area. Study the sketch and answer the following questions.
- 3.4.1 Name ONE spatial development initiative (SDI) which occurs in the PWV. (1 x 2) (2)
- 3.4.2 Provide the name of the Industrial Development Zone (IDZ) in the PWV area. (1 x 2) (2)
- 3.4.3 Name ONE chemical and ONE iron and steel factory found in this area. (2 x 2) (4)
- 3.4.4 Discuss TWO factors that positively influenced the development of the PWV industrial area. (2 x 2) (4)

- 3.5 Refer to the circle diagram (FIGURE 3.5 A), which illustrates the contributions of the economic sectors towards the GDP between 1946 and 2004. The extract (FIGURE 3.5 B) must also be read in order to answer the following questions.
- 3.5.1 Name the economic sector that shows the largest growth between the period mentioned. (1 x 2) (2)
- 3.5.2 List TWO types of activities and services which contribute to the tertiary sector. (2 x 1) (2)
- 3.5.3 Although the primary sector shows a decrease in its contribution towards the GDP, it still plays a crucial role in the economy of South Africa. Substantiate this statement. (2 x 2) (4)
- 3.5.4 Explain why the changes that occurred from 1946 to 2004 in the different economic sectors can be described as positive growth for South Africa. (2 x 2) (4)
- 3.5.5 Refer to the extract (FIGURE 3.5 B) and declare why a “strong rand” would negatively affect economic growth. (2 x 2) (4)
- 3.5.6 Comment on the negative influence the apartheid policy had on economic growth in South Africa. (2 x 2) (4)
- 3.6 Refer to FIGURE 3.6 A, the South African policies on water supplies, FIGURE 3.6 B, the impact of human activities on water resources and the use of water in houses (FIGURE 3.6 C) to answer the following questions.
- 3.6.1 With which economic sector would water be associated with? (1 x 2) (2)
- 3.6.2 Which water policy governs the situation in FIGURE 3.6 C? (1 x 2) (2)
- 3.6.3 By referring to FIGURE 3.6 B, explain how farming activities and urban areas threaten the sustainability of water. (2 + 2) (4)
- 3.6.4 Describe the term “alien vegetation” and explain how this phenomenon threatens water supplies. (2 x 2) (4)
- 3.6.5 The use of water is a personal, but also governmental responsibility.
- In an essay of ±12 lines, discuss the ROLE OF THE INDIVIDUAL as well as THE LOCAL MUNICIPALITY in CONSERVING WATER.  
Use FIGURE 3.6 C as framework for your discussion (6 x 2) (12)
- [100]**

**QUESTION 4: [LO1.2 – LO1.5] [LO2.1 – LO2.4] [LO3.1 – LO3.2]**

- 4.1 Study the graph (FIGURE 4.1 A) which shows the hierarchy of urban settlements and FIGURE 4.1 B, which are advertisements for vacant posts. Answer the following questions.

4.1.1 Which ONE of the irregular towns, A or B, is a tourist town?

4.1.2 Name the advertisement that represents a quaternary activity.

4.1.3 In which local newspaper, will vacant post Q most probably be advertised? Settlement X or Y?

4.1.4 Which vacant post P or R, has the furthest range?

4.1.5 Which middle-order settlement has the largest threshold population? (5 x 2) (10)

- 4.2 Choose the correct answer from the LIST provided to complete the sentence. Write only the correct answer next to the question number (4.2.1 – 4.2.5) in your ANSWER BOOK, e.g. 4.2.6 Geography.

**Quaternary sector, invisible exports, balance of trade, secondary sector, GEAR, tertiary sector, Welkom, invisible imports, value-added manufacturing, Rustenburg.**

4.2.1 Tourism is grouped under the... of a country's economy.

4.2.2 The ... is the difference between a country's visible exports and imports.

4.1.3 The use of a basic resource or material and making it into a product for sale, is called ...

4.2.4 The ... program had been implemented after 1994 to enhance the economic development in South Africa's peripheral areas.

4.2.5 An important town in the platinum mining area is ... (5 x 2) (10)

- 4.3 Read FIGURE 4.3, which expressed the feelings of a few of our youth after they visited a squatter camp in a rural area, and answer the following questions.

4.3.1 Explain in your own words what a squatter camp is. (2 x 2) (4)

4.3.2 Answer the lady, who uttered words marked A, with TWO possible causes. (2 x 2) (4)

4.3.3 Suggest THREE possible solutions which the government can implement to reduce the social condition, as stated by the person marked B. (3 x 2) (6)

- 4.4 Study the sketch map, FIGURE 4.4, of land-use in an urban area, in conjunction with photos I and II and answer the following questions.
- 4.4.1 Provide the letter on the sketch which is illustrated by photo I. (1 x 2) (2)
- 4.4.2 Explain why it is declared that the CBD has become less accessible although most of the roads converge (come together) here. (2 x 2) (4)
- 4.4.3 Identify TWO possible solutions which can be observed on Photo I to improve the “accessibility” of the CBD. (2x2) (4)
- 4.4.4 Identify the urban problem that can be observed in illustration II. (1 x 2) (2)
- 4.4.5 Explain why land-use zone M is exposed to most of the problems in illustration II. (1 x 2) (2)
- 4.4.6 Comment on gentrification as a possible solution for the problems in illustration II. (2 x 2) (4)
- 4.5 FIGURE 4.5 shows the regions around which South Africa’s manufacturing is concentrated. Study the map to answer the following questions.
- 4.5.1 Calculate the total contribution that the major regions make towards the country’s GDP. (1 x 2) (2)
- 4.5.2 Name the interbasin transference of water schemes which supplement the water of regions X and Y. (2 x 2) (4)
- 4.5.3 Name ONE crop farming product which is produced for export in regions X and Y. (2 x 2) (4)
- 4.5.4 Name and discuss ONE factor that restrict (hinders) industrial development in South Africa. (2 x 2) (4)
- 4.5.5 Centralisation is the concentration of industries, people, activities, etc. in an area. It puts a lot of pressure on the existing resources and space of that area.
- Write an essay (±12 lines) about the impact of CENTRALISATION on areas with specific reference to the REASONS why it occur, as well as the ADVANTAGES and DISADVANTAGES of this process on areas. (6 x 2) (12)

4.6 Refer to FIGURE 4.6 to answer the following questions.

4.6.1 What trend is evident in the total value of South Africa's trade for the period 1993 – 2001? (2 x 2) (4)

4.6.2 Explain why foreign trade is important to South Africa. (2 x 2) (4)

4.6.3 South Africa does not have a very favourable trade relationship with rest of the world.  
Provide a possible solution on how South Africa can improve this situation. (1 x 2) (2)

4.6.4 Globalisation is about a closely connected world where boundaries are no longer important. Globalisation involves the rapid expansion in the movement of goods, services, capital, technology, ideas and people around the world. It is the linking up of the world's economy, societies and technologies. Such international interactions impact on our planet and its people.

[Extract from *Focus on Geography – Grade 11 – page 163*]

In an essay of ±12 lines:

- I. Evaluate how globalisation promoted development worldwide.
  - II. Discuss the negative influence of globalisation on host countries. (6 x 2) (12)
- [100]**

**GRAND TOTAL: 300**