



Province of the  
**EASTERN CAPE**  
EDUCATION

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 12**

**GEOGRAPHY P1**

**COMMON TEST**

**JUNE 2014**

**MARKS: 225**

**TIME: 3 hours**

**This question paper consists of 16 pages and  
a 12-page annexure.**



**INSTRUCTIONS AND INFORMATION**

1. This question paper consists of THREE questions.

SECTION A: TWO QUESTIONS – Climate and Weather and Gemorphology

SECTION B: ONE QUESTION – Rural and Urban Settlement

2. Answer ALL questions.
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. Where possible, illustrate your answers with labelled diagrams.
8. Write clearly and legibly.

**SECTION A: CLIMATE AND WEATHER AND GEOMORPHOLOGY****QUESTION 1: ORIGIN OF A MID-LATITUDE CYCLONE**

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 ...

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

1.1.2 Line labelled **Q** is known as the ...

- A polar front.
- B easterly wind belt.
- C polar belt.
- D warm front.

1.1.3 At a front ...

- A winds blowing in opposite direction meet each other.
- B there is a difference between the opposing air masses.
- C there is always friction.
- D there is a complete similarity between all the air masses.

1.1.4 Wind labelled **R** is known as ...

- A subtropical westerly winds.
- B polar easterly winds.
- C polar westerly winds.
- D trade winds.

1.1.5 The air masses **S** and **T** are ...

- A both warm.
- B alternatively cold and warm.
- C both cold.
- D alternatively warm and cold.

1.1.6 The nature of the wind movement causes ...

- A air masses to collide and subside.
- B friction which produces waves.
- C berg winds.
- D whirl winds.

1.1.7 As this system further develops it moves from ...

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

(7 x 1) (7)

## FLUVIAL PROCESSES AND FEATURES

1.2 Refer to FIGURE 1.2 which shows fluvial features and give ONE term for each of the statements below.

1.2.1 Water that flows on the surface after it rains

1.2.2 High-lying area that separates two rivers in the same drainage basin

1.2.3 Water found below the earth's surface

1.2.4 River that flows throughout the year

1.2.5 Upper level of ground water

1.2.6 Meeting place of two rivers

1.2.7 Soaking of water into the ground

1.2.8 Movement of water through the soil to rivers

(8 x 1) (8)

**SYNOPTIC WEATHER MAP**

- 1.3 Refer to the synoptic weather map labelled FIGURE 1.3.  
(The letters **A**, **B**, **C** and **D** have been printed on the synoptic chart.)
- 1.3.1 Give ONE piece of evidence from the synoptic weather map that indicates that the map represents a summer situation. (1 x 1) (1)
- 1.3.2 Describe the pressure gradient at **A**. (1 x 1) (1)
- 1.3.3 Identify and name the pressure cells **B** and **C**. (2 x 1) (2)
- 1.3.4 With reference to the weather system **D**:
- (a) Name the weather system. (1 x 1) (1)
  - (b) How many such weather systems had occurred before Ernest in the present season. (1 x 1) (1)
  - (c) The weather system has reached its mature stage of development. Provide ONE reason evident on the map that support this statement. (1 x 1) (1)
  - (d) Write a short paragraph (approximately 8 lines) to explain the impact of this weather system on human activities and the environment. (4 x 2) (8)

**BERG WIND**

- 1.4 Refer to FIGURE 1.4 showing a map view of a Berg wind.
- 1.4.1 Define the term *Berg wind*. (1 x 1) (1)
- 1.4.2 Name the type of high pressure and low pressure cells labelled **A** and **B** respectively. (2 x 1) (2)
- 1.4.3 Describe the development and movement of the low pressure cell B. (1 x 1) (1)
- 1.4.4 Explain why the Berg winds are dry and warm. (2 x 1) (2)
- 1.4.5 Veldt fires often accompany berg winds. Explain the impact of veldt fires on the economy of the country. (2 x 2) (4)
- 1.4.6 Discuss TWO preventative measures that can be introduced to reduce the spreading of veldt fires caused by Berg winds. (2 x 2) (4)
- 1.4.7 Identify the weather system that is responsible for the dissipation of berg wind conditions. (1 x 1) (1)

**STREAM PROFILE**

1.5 FIGURE 1.5 illustrates the stream profiles of a typical South African river from its source to its river mouth. Various base levels of erosion are indicated along the stream profile.

1.5.1 Define the term *base level of erosion*. (1 x 1)(1)

1.5.2 Identify ONE temporary base level of erosion in FIGURE 1.5. (1 x 1)(1)

1.5.3 Draw a labelled longitudinal profile of the river illustrated in FIGURE 1.5, clearly showing how the temporary base levels of erosion could have influenced the shape of the profile. (5 x 1)(5)

1.5.4 How would you describe the longitudinal profile that you have drawn in QUESTION 1.5.3? (1 x 1)(1)

1.5.5 Give a reason for your description in QUESTION 1.5.4. (1 x 1)(1)

1.5.6 Suggest THREE reasons why the cross-section profiles of the river change, from its source (1) to its river mouth (2). (3 x 2)(6)

**DRAINAGE BASIN**

1.6 FIGURE 1.6 illustrates a drainage basin.

1.6.1 Define the term *drainage basin*. (1 x 1)(1)

1.6.2 Identify the drainage pattern assumed by the river system in this drainage basin. (1 x 1)(1)

1.6.3 Give ONE reason, visible in FIGURE 1.6, for your answer to QUESTION 1.6.2. (1 x 1)(1)

1.6.4 The drainage density of the river system seems to be denser (finer) at **R** than at **S**. Explain why this is the case. (1 x 1)(1)

1.6.5 Determine the stream order of the river system where it flows at **X**. (1 x 1)(1)

1.6.6 (a) At which point, **R** or **S**, would there be a greater risk of flooding? (1 x 1)(1)

(b) Explain your answer to QUESTION 1.6.6(a). (1 x 1)(1)

(c) Write a short paragraph (approximately 8 lines) outlining flood prevention methods that can be implemented to reduce the risk of flooding in this drainage basin. (4 x 2)(8)

**[75]**

**QUESTION 2: VALLEY CLIMATE**

- 2.1 Refer to FIGURE 2.1 which shows air movement in a valley. Choose the correct word(s) from those given in brackets. Write only the word(s) next to the question number (2.1.1 – 2.1.7) in the ANSWER BOOK.
- 2.1.1 The climate in a localised area such a valley, is called (microclimate/macrocclimate).
- 2.1.2 The valley wind labelled A is a/an (katabatic/anabatic) wind.
- 2.1.3 This wind occurs during the (day/night) in valleys.
- 2.1.4 The wind is also referred to as a/an (upslope/downslope) wind.
- 2.1.5 The zone labelled **B** is the (thermal belt/frost pocket).
- 2.1.6 The form of precipitation experienced at **C** is (frost/snow).
- 2.1.7 The condition in the valley where temperatures increases with height is known as (temperature inversion/aspect of a slope). (7 x 1) (7)

**RIVER CAPTURE**

- 2.2 Refer to FIGURE 2.2 showing different features and the process of river capture. Choose ONE word/term from the list provided to match each of the following descriptions. Write only the word/term next to the question number (2.2.1 – 2.2.8) in the ANSWER BOOK.

misfit stream;	wind gap;	captor stream;	abstraction;
rejuvenation;	watershed;	elbow of capture;	
	captured stream		

- 2.2.1 A stream that intercepts the water of another stream.
- 2.2.2 A stream whose headwaters have been intercepted.
- 2.2.3 Stream that is smaller than the valley through which it flows.
- 2.2.4 The point where an energetic stream intercepts the water of another stream.

2.2.5 A dry valley where no stream flows.

2.2.6 High lying area that separates two different river systems.

2.2.7 The lowering of the watershed by erosion.

2.2.8 The process by which a river gains more energy and vertical eroding power resulting in terraced valleys. (8 x 1) (8)

### **INVERSION LAYER**

2.3 Refer to FIGURE 2.3 showing the different positions of the upper air inversion layer over South Africa.

2.3.1 Define the term *inversion layer*. (1 x 1) (1)

2.3.2 Identify the mountain range labelled **C**. (1 x 1) (1)

2.3.3 Which of the diagrams, FIGURE 2.3 A or 2.3 B, represents summer months? (1 x 1) (1)

2.3.4 Give ONE reason for your answer to QUESTION 2.3.3. (1 x 2) (2)

2.3.5 Write a short paragraph (approximately 8 lines) explaining how the varying positions of the inversion layer, influences the amount of rainfall received over the South African interior in summer and winter. (4 x 2) (8)

2.3.6 Suggest how the varying amounts of rainfall over the South African interior in summer and winter, will impact on farming activities there. (1 x 2) (2)



**CITY CLIMATE**

2.4 Refer to FIGURE 2.4 showing smoke concentration over Tshwane for a period of 24 hours during winter.

2.4.1 At what time is the smoke concentration the highest? (1 x 1) (1)

2.4.2 Give ONE possible reason for your answer in QUESTION 2.4.1. (2 x 1) (2)

2.4.3 At what time is the smoke concentration the lowest? (1 x 1) (1)

2.4.4 Suggest a possible reason for your answer in QUESTION 2.4.3. (1 x 2) (2)

2.4.5 How will the smoke released from the factories affect the temperature over Tshwane? (1 x 1) (1)

2.4.6 Besides factories, give TWO other contributors of heat in the centre of Tshwane. (2 x 1) (2)

2.4.7 How will the temperature in the centre of Tshwane differ from the temperature in Faerie Glen (a suburb about 10 km from the city centre)? (1 x 2) (2)

2.4.8 What health problems will the people who work in the centre of Tshwane experience as a result of the pollution? (2 x 1) (2)

2.4.9 Suggest ONE possible solution that the municipality of Tshwane can adopt to reduce the amount of pollution over the city. (1 x 2) (2)

**FLUVIAL LANDFORMS**

2.5 Study FIGURES 2.5 A and 2.5 B showing fluvial landforms.

2.5.1 Refer to FIGURE 2.5 A.

- (a) Define the term *river discharge*. (1 x 1) (1)
- (b) Identify feature **X**. (1 x 1) (1)
- (c) Along which course of the river does this feature commonly occur? (1 x 1) (1)
- (d) Give a reason for your answer in QUESTION 2.5.1(c). (1 x 1) (1)
- (e) Account for the formation of feature **X**. (2 x 1) (2)
- (f) Explain how feature **X** contributes to the economy of a country. (1 x 1) (1)

- 2.5.2 (a) Identify feature labelled **Y**. (1 x 1) (1)
- (b) Name ONE popular sport that takes place at **Y**. (1 x 1) (1)

2.5.3 Refer to FIGURE 2.5 B showing a meandering river channel.

“Distinctive landforms (features) develop along the course of a river as a result of erosion or deposition.”

- (a) Define the term *meander*. (1 x 1) (1)
- (b) Explain how a meander develops. (2 x 1) (2)
- (c) Describe ONE characteristic of the “undercut slope” in a meander. (1 x 1) (1)
- (d) Name the feature that will result from the narrowing of the meander neck. (1 x 1) (1)
- (e) Suggest ONE reason why the feature identified in QUESTION 2.5.3(d) is classified as a “temporary feature”. (1 x 1) (1)

**DRAINAGE BASINS AND CATCHMENT AREAS**

2.6 Study FIGURE 2.6 which shows a drainage basins and catchments areas.

2.6.1 Define the term *catchment area*. (1 x 1) (1)

2.6.2 Describe how activities practised at **A** impacts negatively on the catchment area. (2 x 1) (2)

2.6.3 Explain how activities practised at **B** have affected the health of the river system. (2 x 1) (2)

2.6.4 Explain TWO reasons why catchment areas and drainage basins must be effectively managed. (2 x 1) (2)

2.6.5 "The natural balance that exist within a river system has been disturbed and the natural catchment areas have been degraded. Integrated water resources management strategy is therefore needed."

Write a paragraph of (approximately 8 lines) on effective management strategies that can be used to manage drainage basins in a sustainable manner.

(4 x 2) (8)  
**[75]**

**SECTION B: RURAL AND URBAN SETTLEMENTS****QUESTION 3: RURAL AND URBAN SETTLEMENTS****3.1 RURAL SETTLEMENT**

Match the terms in COLUMN B with the descriptions in COLUMN A.  
Write down 3.1.1. to 3.1.8 one below the other and write *ONLY* the answer, for example 3.1.9 K.

<b>COLUMN A</b>	<b>COLUMN B</b>
3.1.1 Unifunctional settlements	A Village
3.1.2 The largest rural settlement	B Rural
3.1.3 The smallest rural settlement.	C Land Restitution
3.1.4 Economic activities practiced in rural settlements	D Farmstead
3.1.5 Transfer of agricultural land to Blacks who cannot afford it	E Hamlet
3.1.6 The location of a settlement in relation to another	F Land Tenure Reform
3.1.7 The transfer of land to Black people who lost their land due to forced removals	G Primary
3.1.8 Addresses insecurity of farm workers, labour tenants and people living on land owned by others	H Situation
	I Land Redistribution
	J Site

(8 x 1) (8)

### 3.2 SITE AND SITUATION

Refer to FIGURE 3.2 showing Site and Situation affecting both rural and urban settlements. Match each description below with diagrams given. Write down 3.2.1 to 3.2.7 one below the other and write ONLY the letter of your choice

- 3.2.1 Settlements located near a permanent source of water.
- 3.2.2 Settlements found in a gap which runs through a mountain.
- 3.2.3 The point where one type of transport is replaced by another.
- 3.2.4 Settlements located on higher ground where flooding is a problem.
- 3.2.5 Settlements in places where a river or stream can be crossed.
- 3.2.6 These towns develop at the junction of transport routes and navigable rivers.
- 3.2.7 A place in a town or city that provides functions to the surrounding rural area. (7 x 1) (7)

### 3.3 RURAL SETTLEMENT PATTERN

Study FIGURE 3.3 showing rural settlements.

- 3.3.1 Identify the type of rural settlement pattern shown. (1 x 1) (1)
- 3.3.2 Explain TWO social advantages of living in this type of rural settlement. (2 x 2) (4)
- 3.3.3 Suggest ONE site factor that influenced the location of this settlement. (1 x 1) (1)
- 3.3.4 Describe the impact of HIV/Aids on this rural settlement. (1 x 1) (1)
- 3.3.5 Write a paragraph of (approximately 8 lines) on measures that can be put in place to address the challenges of HIV/Aids in rural areas. (4 x 2) (8)

### 3.4 SOCIAL INJUSTICES

Study FIGURE 3.4 based on an extract on Land Reform.

3.4.1 Define the term *social injustice*. (1 x 1) (1)

3.4.2 Explain the main aim of land reform programme in post apartheid South Africa. (2 x 1) (2)

3.4.3 *Mr Nkompo and other farmers says, "When we sought the land we knew it was not going to be easy, but we have been shocked".*

Discuss any TWO challenges associated with land reform Black farmers are facing. (2 x 2) (4)

3.4.4 As part of their land reform programme, the government buys land on a "willing-seller, willing-buyer" basis.

(a) Explain what the above statement means. (1 x 2) (2)

(b) Discuss ONE way in which the above principle "willing-seller, willing-buyer" has impacted on the land reform process. (1 x 2) (2)

3.4.5 Many new Black farmers engage in subsistence farming.

(a) Describe TWO characteristics of the type of farming practised by Black farmers. (2 x 1) (2)

(b) Why is there a need for agricultural reform in South Africa? (1 x 2) (2)

### 3.5 SHOPPING BEHAVIOUR PATTERNS

Study FIGURE 3.5 showing shopping behaviour patterns.

3.5.1 Define the concept *desire line*. (1 x 1) (1)

3.5.2 Provide ONE reason why people are not prepared to travel great distances to purchase convenience goods. (1 x 2) (2)

3.5.3 State the relationship that exists between the following:

(a) number of services and the order of goods. (2 x 1) (2)

(b) order of service and the maximum distance travelled. (2 x 1) (2)

3.5.4 Discuss TWO reasons why customers often do not travel to the nearest centre to obtain a particular service. (2 x 1) (2)

3.5.5 Refer to specialist shops. (6 meters)

(a) Explain TWO reasons why “specialist shops” will have a bigger range. (2 x 1) (2)

(b) Suggest ONE example of high order goods. (1 x 1) (1)

3.5.6 Explain the term *threshold population*. (1 x 1) (1)

3.5.7 Suppose the threshold population for the “Specialist Shop” is 4 000. Explain when this store will operate at:

(a) a loss

(b) a profit (2 x 1) (2)

**3.6 INNER CITY RENEWAL**

Study FIGURE 3.6 based on the extract on Inner City Renewal.

- 3.6.1 Define the term *urban renewal*. (1 x 1) (1)
- 3.6.2 Explain how “park and ride” facilities will help solve the problem in the inner city. (1 x 1) (1)
- 3.6.3 Describe TWO “social ills” that exist in Durban’s inner city. (2 x 1) (2)
- 3.6.4 Suggest ONE environmental problem present in the inner city. (1 x 1) (1)
- 3.6.5 Explain how eco cities (green cities) as a sustainable solution, will solve inner city problems. (2 x 1) (2)
- 3.6.6 Write a paragraph (approximately 8 lines) on strategies that can be put in place to combat inner city problems overcrowding and traffic congestion. (4 x 2) (8)
- [75]**

**TOTAL: 225**