



Province of the
EASTERN CAPE
EDUCATION

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

SEPTEMBER 2019

GEOGRAPHY P1

MARKS: 225

TIME: 3 hours



This question paper consists of 16 pages.

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 questions correctly according to the numbering system used in this question paper.
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. The mark allocation is as follows: (2 x 1) (2) means that TWO facts are required for ONE mark each.
(2 x 2) (4) means that TWO facts are required for TWO marks each.
10. If words/action verbs like **Name, Identify, Provide, Classify**, are used in a question, ONE-word answers are acceptable.
If words/action verbs like **Discuss, Define, Explain, Comment, Evaluate, Justify, Suggest** and **Substantiate** are used in a question, FULL sentences or phrases are required.
All paragraph questions must be answered in FULL sentences.
11. Units of measurements MUST be indicated in your final answers, e.g. 1020 hPa, 14 °C or 45 m.
12. Write neatly and legibly.

SECTION A: CLIMATE, WEATHER AND GEOMORPHOLOGY**QUESTION 1**

- 1.1 Refer to FIGURE 1.1 showing the movement of Hurricane Florence.
- 1.1.1 What evidence suggests that Hurricane Florence is in the Northern Hemisphere?
 - 1.1.2 Indicate the season that Hurricane Florence is most likely to have formed in.
 - 1.1.3 Name the stage of development of Hurricane Florence on WED AM 150 MPH.
 - 1.1.4 In which general direction is Hurricane Florence moving in?
 - 1.1.5 Give the number that Hurricane Florence would represent for the season that it has formed.
 - 1.1.6 On what day did Hurricane Florence start to dissipate?
 - 1.1.7 What category has Hurricane Florence being classified as?
 - 1.1.8 State the approximate ocean temperature that was a necessary condition for Hurricane Florence to originate. (8 x 1) (8)
- 1.2 FIGURE 1.2 shows slip-off and under-cut slopes. Match each of the descriptions below with one of the slopes.
- 1.2.1 The water flows more rapidly
 - 1.2.2 The shape of this slope is convex
 - 1.2.3 This slope is characterised by more erosion
 - 1.2.4 A river cliff is likely to form on this slope
 - 1.2.5 This slope is also referred to as the inner bank
 - 1.2.6 The shape of this slope is concave
 - 1.2.7 More deposition occurs on this slope (7 x 1) (7)

1.3 FIGURE 1.3 is a diagram showing the influence of anticyclones on the weather and climate of South Africa.

- 1.3.1 What season is depicted in sketch **X**? (1 x 1) (1)
- 1.3.2 Name anticyclones **A**, **B** and **C**. (3 x 1) (3)
- 1.3.3 State ONE characteristic of anticyclone **B**. (1 x 1) (1)
- 1.3.4 Explain why anticyclones at **A** and **C** assume different positions in sketch **Y**. (1 x 2) (2)
- 1.3.5 Write a paragraph of approximately EIGHT lines explaining how the changing positions of anticyclones **A** and **C** in sketch **Y** affects rainfall patterns in South Africa. (4 x 2) (8)

1.4 Study FIGURE 1.4 which is based on the formation of fog in a valley.

- 1.4.1 Name the type of fog that has developed on the valley floor. (1 x 1) (1)
- 1.4.2 List ONE condition evident from the sketch that would favour the formation of fog. (1 x 1) (1)
- 1.4.3 Name wind **A** that occurs mainly at night in the valley. (1 x 1) (1)
- 1.4.4 Why does the wind mentioned in QUESTION 1.4.3 move downwards? (1 x 2) (2)
- 1.4.5 Discuss the role that the wind mentioned in QUESTION 1.4.3 would play in the formation of fog. (2 x 2) (4)
- 1.4.6 Explain the negative impact that the formation of fog would have on people living in a valley. (3 x 2) (6)

1.5 Study FIGURE 1.5 which shows two types of drainage patterns.

- 1.5.1 What is a *drainage pattern*? (1 x 1) (1)
- 1.5.2 Name drainage patterns **A** and **B**. (2 x 1) (2)
- 1.5.3 Differentiate between drainage patterns **A** and **B**. (1 x 2) (2)
- 1.5.4 Account for the short tributaries in drainage pattern **B**. (1 x 2) (2)
- 1.5.5 In a paragraph of approximately EIGHT lines, explain the role that underlying igneous rocks play in the formation of different drainage patterns. (4 x 2) (8)

1.6 FIGURE 1.6 shows a profile of a drainage basin.

- 1.6.1 Define the term *cross (transverse) profile*. (1 x 1) (1)
- 1.6.2 Name the type of discharge in the upper course of the drainage basin. (1 x 1) (1)
- 1.6.3 Suggest ONE possible reason to support your answer to QUESTION 1.6.2. (1 x 1) (1)
- 1.6.4 Refer to the middle course of the river.
- (a Draw cross (transverse) profiles of the valley in the middle and
) lower course of the river. (2 x 2) (4)
- (b With reference to the cross profiles, (answer to QUESTION 1.6.4
) (a)) discuss the difference between the shape of the valley in the
middle and lower courses. (2 x 2) (4)
- 1.6.5 Discuss the role that fluvial processes play in the development of
deltas in the lower course of the river. (2 x 2) (4)

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QUESTION 2

- 2.1 Choose a term in COLUMN B that matches the climatological description in COLUMN A. Write only the letter (A–H) next to the question number (2.1.1–2.1.7) in the ANSWER BOOK, for example 1.1.8 J.

COLUMN A		COLUMN B	
2.1.1	A zone between two air masses of different moisture content	A	berg wind
2.1.2	Occurs in summer when the land is heated intensely	B	offshore wind
2.1.3	Movement of air from sea to land	C	moisture front
2.1.4	Hot, dry winds that blow from the interior	D	coastal low
2.1.5	Causes moist air to be drawn onto the inland in summer	E	line thunderstorms
2.1.6	Forms in summer as a result of moist air flowing inland from a north easterly direction	F	cut-off low
2.1.7	A small, weakly developed cell with a radius of 100 kilometres	G	heat low
		H	onshore wind

(7 x 1) (7)

- 2.2 Various options are provided as possible answers to the following questions. Choose the answer and write only the letter (A–D) next to the question number (2.2.1–2.2.8) in the ANSWER BOOK, for example 2.2.9 A.

2.2.1 Refers to the highest level of water found underground:

- A Base level
- B Base flow
- C Water table
- D Groundwater

2.2.2 Rivers that only flow after heavy rainfall are called ... rivers.

- A periodic
- B permanent
- C exotic
- D episodic

2.2.3 A view of the river from the source to the mouth is known as a ... profile.

- A cross
- B transverse
- C longitudinal
- D drainage

2.2.4 The term used to describe the process when a river begins to erode downwards after reaching a graded state.

- A Rejuvenation
- B River capture
- C Abstraction
- D Knickpoint

2.2.5 The river is older than the underlying rock structure in a ... drainage pattern.

- A deranged
- B antecedent
- C parallel
- D superimposed

2.2.6 The point where one river captures another is known as the ...

- A beheaded stream.
- B dry gap.
- C elbow of capture.
- D river gravel.

2.2.7 A ... is a curve or bend along a river.

- A levee
- B meander
- C ox-bow lake
- D floodplain

2.2.8 The highest lying land that changes its position during abstraction is called a(n) ...

- A interfluve.
- B terrace.
- C mesa.
- D watershed

(8 x 1) (8)

2.3 Study FIGURE 2.3, a lifecycle of a mid-latitude cyclone.

2.3.1 What evidence indicates that this mid-latitude cyclone is in the northern hemisphere? (1 x 1) (1)

2.3.2 (a) State ONE characteristic of the mature stage of a mid-latitude cyclone. (1 x 1) (1)

(b) Differentiate between the main type of clouds associated with the cold front and the warm front in the mature stage. (1 x 2) (2)

2.3.3 Discuss how the occlusion stage of the mid-latitude cyclone is reached. (2 x 2) (4)

2.3.4 Draw a labelled cross section to represent a cold front. (3 x 1) (3)

2.3.5 Comment on the positive impact that mid-latitude cyclones have on farming and tourists in the Western Cape. (2 + 2) (4)

2.4 Refer to FIGURE 2.4 based on an urban heat island.

2.4.1 What do you understand by the term *microclimate*? (1 x 1) (1)

2.4.2 Name ONE factor evident in the sketch that determines an urban microclimate. (1 x 1) (1)

2.4.3 How do we know that a heat island is depicted in the sketch? (1 x 1) (1)

2.4.4 Discuss how the high density of buildings in the sketch contribute to the high temperatures over the city. (2 x 2) (4)

2.4.5 In a paragraph of approximately EIGHT lines, suggest possible strategies that could be implemented to reduce the effects of a heat island. (4 x 2) (8)

2.5 Study FIGURE 2.5, photographs of two fluvial landforms.

- 2.5.1 In which course of the river do these TWO fluvial landforms mainly form? (1 x 1) (1)
- 2.5.2 Identify the TWO fluvial landforms illustrated in sketches **A** and **B**. (2 x 1) (2)
- 2.5.3 (a) Discuss how fluvial landform **A** develops. (2 x 2) (4)
- (b) Suggest a reason why rafters (someone who rows an inflatable boat) would prefer to row along fluvial landform **A** rather than fluvial landform **B**. (1 x 2) (2)
- 2.5.4 (a) State TWO economic advantages of fluvial landform **B**. (2 x 1) (2)
- (b) Explain the process that would result in fluvial landform **B** retreating upstream. (2 x 2) (4)

2.6 Study FIGURE 2.6 based on river management in South Africa.

- 2.6.1 What is *river management*? (1 x 1) (1)
- 2.6.2 How can the agricultural activities depicted in the sketch pollute our rivers? (1 x 2) (2)
- 2.6.3 State ONE negative impact that the trees in the sketch can have on the drainage area of the river. (1 x 2) (2)
- 2.6.4 Why would flash floods be a danger to people living too close to this river? (1 x 2) (2)
- 2.6.5 In a paragraph of approximately EIGHT lines, suggest sustainable management strategies that could be put in place to reduce the effect of industries on river pollution. (4 x 2) (8)

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SECTION B: RURAL AND URBAN SETTLEMENTS AND SOUTH AFRICAN ECONOMIC GEOGRAPHY

QUESTION 3

3.1 Choose the correct word(s) from those given in brackets. Write only the word(s) next to the question number (3.1.1–3.1.8) in the ANSWER BOOK.

3.1.1 Cattle farming is usually an example of (small scale/large scale) farming.

3.1.2 (Dry/Wet) point settlements are located on hills because water poses a threat.

3.1.3 Railways and airports influence the (situation/site) of a settlement.

3.1.4 The (RDP/Good Hope Plan) was implemented to address social injustice issues in rural areas in the post-apartheid era.

3.1.5 A decrease in the number of people living in rural areas is referred to as (rural depopulation/rural-urban migration).

3.1.6 A settlement with both rural and urban functions is known as a (village/hamlet).

3.1.7 Tradition is a factor that influences (site/situation).

3.1.8 (Round/Linear) rural settlement patterns usually develop because of security issues. (8 x 1) (8)

- 3.2 Choose a term in COLUMN B that matches a description in COLUMN A. Write only the letter (A–H) next to the question number (3.2.1–3.2.7) in the ANSWER BOOK, for example 3.2.9 I.

COLUMN A		COLUMN B	
3.2.1	Sector of the economy linked to research	A	GNP
3.2.2	Total value of goods produced in South Africa by permanent inhabitants of the country in one year	B	import
3.2.3	Tariffs and quotas are used to regulate trade	C	tertiary activities
3.2.4	People in a country do not have access to nutritious food	D	food insecurity
3.2.5	Goods that are sold to overseas countries	E	food security
3.2.6	Provision of transport services	F	export
3.2.7	Goods brought into a country	G	quaternary activities
		H	protectionism

(7 x 1) (7)

- 3.3 Study FIGURE 3.3, a cartoon on land reform.

- 3.3.1 What is the purpose of land reform in South Africa? (1 x 1) (1)
- 3.3.2 Name any TWO land reform policies that enabled this claimant to be successful. (2 x 1) (2)
- 3.3.3 Discuss the TWO challenges that the government could have faced in effecting land reform policy for this successful claimant. (2 x 2) (4)
- 3.3.4 Suggest possible reasons why this land claimant, illustrated in the cartoon, needs help. (2 x 2) (4)
- 3.3.5 Explain the implications for the country if all land claimants do not get the necessary help. (2 x 2) (4)

3.4 Study photographs **A** and **B** in FIGURE 3.4. on urban injustices.

- 3.4.1 What is *social injustice*? (1 x 1) (1)
- 3.4.2 (a) State the unequal access to services and resources illustrated in photograph **A**. (1 x 1) (1)
- (b) Why are the poor mainly affected by the unequal access to services and resources? (2 x 1) (2)
- (c) List TWO negative impacts that unequal access to services and resources can have on a country. (2 x 1) (2)
- 3.4.3 Name the type of pollution causing the environmental injustice in photograph **B**. (1 x 1) (1)
- 3.4.4 Discuss TWO negative effects of this type of pollution mentioned in QUESTION 3.4.3 on the health of the community. (2 x 2) (4)
- 3.4.5 Suggest TWO measures that could be implemented to protect the community against the type of pollution named in QUESTION 3.4.4. (2 x 2) (4)

3.5 FIGURE 3.5 is an infographic based on the informal sector.

- 3.5.1 What is an *informal trader*? (1 x 1) (1)
- 3.5.2 State the reasons given in the extract as to why people become informal traders. (2 x 1) (2)
- 3.5.3 Suggest possible 'rights and protection' that informal traders are denied. (2 x 2) (4)
- 3.5.4 How can the government improve the working conditions under which informal traders operate? (2 x 2) (4)
- 3.5.5 Explain the economic 'interconnectedness' (relationship) between the formal and informal sector. (2 x 2) (4)

- 3.6 Study the map and article in FIGURE 3.6 that refers to the Saldanha Bay Industrial Development Region.
- 3.6.1 Name the core industrial region that is close to the Saldanha Bay Industrial Development Region. (1 x 1) (1)
- 3.6.2 List ONE of the main aims of the Saldanha Bay Industrial Development Region. (1 x 1) (1)
- 3.6.3 According to the extract, which sector does the Saldanha Bay Industrial Development Region serve? (1 x 1) (1)
- 3.6.4 How is the location of the Saldanha Bay harbour seen as an advantage to the region? (2 x 2) (4)
- 3.6.5 In a paragraph of approximately EIGHT lines, outline the challenges that the Saldanha Bay Industrial Development Region has had to face since its declaration as an Industrial Development Region. (4 x 2) (8)
- [75]**

QUESTION 4

4.1 Refer to FIGURE 4.1 on urban land-use zones. Match the descriptions below with one of the urban land-use zones. You may use an urban land-use zone more than once. Choose the answer and write only the correct land-use next to the question number (4.1.1–4.1.7) in the ANSWER BOOK.

4.1.1 This land-use zone has the highest land-value

4.1.2 Occupies the most amount of land in an urban settlement

4.1.3 This land-use zone consists of a large number of immigrants

4.1.4 A high degree of accessibility is evident in this land-use zone

4.1.5 This land-use zone is mostly made up of residential areas

4.1.6 Land is usually cheaper in this land-use zone

4.1.7 This land-use zone has a number of dilapidated buildings (7 x 1) (7)

4.2 Choose a term in COLUMN B that matches a description in COLUMN A. Write only the letter (A–H) next to the question number (4.2.1–4.2.8) in the ANSWER BOOK, for example 4.2.9 J.

COLUMN A		COLUMN B	
4.2.1	Industries located close to the natural resource	A	Gold
4.2.2	South Africa produces two thirds of the global output of this mineral	B	Footloose
4.2.3	These industries are located close to the customer	C	Coal
4.3.4	This mineral is mainly exported through the Richards Bay Terminal	D	Diamonds
4.2.5	Industries located between raw materials and the customer	E	Ubiquitous
4.2.6	The mineral that is the largest foreign income earner in South Africa	F	Raw material
4.2.7	These are service orientated industries	G	Market
4.2.8	Industries that can locate anywhere but rely on the market	H	Bridge
		I	Platinum

(8 x 1) (8)

4.3 Study FIGURE 4.3 which illustrates rural-urban migration.

- 4.3.1 What is *rural-urban migration*? (1 x 1) (1)
- 4.3.2 List ONE physical 'push' factor evident in the illustration. (1 x 1) (1)
- 4.3.3 State ONE service evident in the illustration that would 'pull' people to urban areas. (1 x 1) (1)
- 4.3.4 Discuss a negative economic consequence that rural areas will experience as a result of rural-urban migration. (1 x 2) (2)
- 4.3.5 Suggest a possible strategy that municipalities in rural areas could implement to encourage counter urbanisation. (1 x 2) (2)
- 4.3.6 In a paragraph of approximately EIGHT lines, explain why rural-urban migration generally results in negative outcomes for most urban immigrants. (4 x 2) (8)

4.4 Refer to FIGURE 4.4, a cartoon depicting the concept of urban sprawl.

- 4.4.1 Define the term *urban sprawl*. (1 x 1) (1)
- 4.4.2 State TWO causes of urban sprawl. (2 x 1) (2)
- 4.4.3 Explain how the cartoon illustrates urban sprawl taking place. (2 x 2) (4)
- 4.4.4 Discuss TWO ways in which urban sprawl can harm the environment. (2 x 2) (4)
- 4.4.5 Explain how green belts can be seen as a possible measure to manage urban sprawl. (2 x 2) (4)

4.5 Refer to FIGURE 4.5, an extract based on farming systems in South Africa.

- 4.5.1 What is a *commercial farmer*? (1 x 1) (1)
- 4.5.2 According to the extract, why is industrial farming important? (1 x 1) (1)
- 4.5.3 Explain how the commercial agricultural system can harm the environment. (1 x 2) (2)

- 4.5.4 (a) What is *small scale farming*? (1 x 1) (1)
- (b) Why are genetically modified crops costly for the small-scale farmer? (2 x 1) (2)
- (c) Comment on the contribution that small-scale farmers make to the economy of South Africa. (2 x 2) (4)
- (d) Outline sustainable measures that the government can implement to ensure the existence of small-scale farmers. (2 x 2) (4)

4.6 Read the extract in FIGURE 4.6 referring to the development of the Port Elizabeth-Uitenhage industrial region.

- 4.6.1 In which province is the Port Elizabeth-Uitenhage industrial region located? (1 x 1) (1)
- 4.6.2 Name the main industry located in the Port Elizabeth-Uitenhage industrial region. (1 x 1) (1)
- 4.6.3 State the main transport facility that influenced the location of this industry (answer to QUESTION 4.6.2). (1 x 1) (1)
- 4.6.4 How has the main industry mentioned in QUESTION 4.6.2 stimulated the growth of other industries in the region? (1 x 2) (2)
- 4.6.5 Discuss ONE factor that has restricted industrial growth in the region. (1 x 2) (2)
- 4.6.6 In a paragraph of approximately EIGHT lines, explain the impact that transport has had on the growth of the region. (4 x 2) (8)

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TOTAL: 225