



Province of the
EASTERN CAPE
EDUCATION

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

SEPTEMBER 2018

GEOGRAPHY P1

MARKS: 225

TIME: 3 hours



* G E O G E 1 *

This question paper consists of 14 pages and a 12 page annexure.

INSTRUCTIONS AND INFORMATION

1. This question paper consists of FOUR questions.
2. Answer any THREE questions of 75 marks each.
3. All diagrams are included in the ANNEXURE.
4. Number the answers correctly according to the numbering system used in this question paper.
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. Draw fully labelled diagrams when instructed to do so.
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. Write neatly and legibly.

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

- 1.1 Study FIGURE 1.1 based on weather stations. Write ONLY **A** or **B** next to the question number (1.1.1–1.1.7) in the ANSWER BOOK.
- 1.1.1 At which weather station is the dew point temperature the highest?
- 1.1.2 Where will the pressure gradient be the weakest?
- 1.1.3 Name the weather station where the atmospheric temperature is likely to be the lowest.
- 1.1.4 Will stratus clouds be more likely to form at weather station **A**, or **B**?
- 1.1.5 Is weather station **A** or **B** more representative of the warm sector of a mid-latitude cyclone?
- 1.1.6 At which weather station is the wind blowing towards the north east?
- 1.1.7 Name the weather station most likely to be found over the interior of South Africa during winter. (7 x 1) (7)
- 1.2 Refer to FIGURE 1.2, showing a drainage basin. Choose the term/word between brackets to make the statement geographically correct. Write ONLY the term/word of your choice next to the question number (1.2.1–1.2.8) in the ANSWER BOOK, for example 1.2.9 Geomorphology.
- 1.2.1 The river at **A** generally flows in an/a (easterly/westerly) direction.
- 1.2.2 The area at **B**, that represents the highest level of the ground water, is known as the (saturated level/water table).
- 1.2.3 The process at **C** is called (evapotranspiration/evaporation).
- 1.2.4 (Laminar/Turbulent) flow dominates at **D**.
- 1.2.5 The area at **E**, where the tributary joins the mainstream, is known as the (confluence/source).
- 1.2.6 The type of overland flow, taking the form of thin, continuous layers at **F**, is called (channel/sheet) flow.
- 1.2.7 The process at **G**, where water seeps into the soil, is known as (ground water/infiltration).
- 1.2.8 The high lying area **H**, which separates tributaries of the same drainage basin, is called a/an (watershed/interfluvium). (8 x 1) (8)

1.3 FIGURE 1.3, illustrates a travelling disturbance (line thunderstorm) over the interior of South Africa.

1.3.1 In which season, will this travelling disturbance most likely occur in South Africa? (1 x 1) (1)

1.3.2 Name the front indicated by line **A** in the sketch. (1 x 1) (1)

1.3.3 Discuss the origins of the different cold and warm air masses, which caused the development of this front. (answer to QUESTION 1.3.2) (2 x 2) (4)

1.3.4 Refer to the wind directions in the west and east.

(a) Differentiate between the general wind direction in the west and east. (2 x 1) (2)

(b) Comment on the reason for this difference in wind direction as indicated in QUESTION 1.3.4(a). (1 x 2) (2)

1.3.5 Explain how heavy rainfall will impact on the infrastructure of places over the interior of South Africa. (3 x 2) (6)

1.4 Refer to FIGURE 1.4 showing the microclimate in a valley slope in the northern hemisphere.

1.4.1 In which direction is the slope facing? (1 x 1) (1)

1.4.2 What is the *thermal belt*? (1 x 1) (1)

1.4.3 Evaluate how the local climate has played a role in the location of the house. (2 x 2) (4)

1.4.4 In a paragraph of approximately EIGHT lines, explain reasons for the difference in temperature between **A** and **B** and how this temperature difference will influence the type of vegetation/crops grown. (4 x 2) (8)

1.5 Refer to FIGURE 1.5 which shows a fluvial landform (oxbow lake).

1.5.1 Name the plain on which this landform developed. (1 x 1) (1)

1.5.2 In which course of the river will this fluvial landform develop? (1 x 1) (1)

1.5.3 Identify the feature at **X**. (1 x 1) (1)

1.5.4 Draw a simplified cross profile from **P** to **Q** to show the area where the highest velocity (speed) occurs. (2 x 1) (2)

1.5.5 Refer to the oxbow lake.

- (a) Provide TWO visible characteristics on the sketch of an oxbow lake. (2 x 1) (2)
- (b) In a paragraph of approximately EIGHT lines, explain how the oxbow lake become cut off from the mainstream and how water supply can be maintained in this oxbow lake. (4 x 2) (8)

1.6 FIGURE 1.6 shows the process of river capture over time.

- 1.6.1 Name the type of erosion that occurs over time, at **X**. (1 x 1) (1)
- 1.6.2 In which direction is the erosion process (answer to QUESTION 1.6.1) moving? (1 x 1) (1)
- 1.6.3 Identify ONE factor, visible on the sketch, that made river capture possible. (1 x 1) (1)
- 1.6.4 Evaluate how river capture has influenced the drainage densities of the drainage basins in the west and east. (1 x 2) (2)
- 1.6.5 Refer to the enlarged area at the point of capture.
 - (a) Name features **Y** and **Z**. (2 x 1) (2)
 - (b) Provide TWO characteristics of the feature at **Y**. (2 x 2) (4)
 - (c) Evaluate the positive economic value of feature **Z**. (2 x 2) (4)

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QUESTION 2

2.1 FIGURE 2.1 shows a cross-section of a tropical cyclone. Choose the correct word(s) from those given in brackets. Write **ONLY** the answer next to the question number (2.1.1–2.1.8) in the ANSWER BOOK, for example 2.1.9 tropical cyclone.

2.1.1 Tropical cyclones will originate (inside/outside) 5° north and south of the equator.

2.1.2 (Coriolis/Pressure gradient) force is a pre-requisite for the development of tropical cyclones.

2.1.3 (Nimbostratus/Cirrus) clouds will develop at A.

2.1.4 There will be a (high/low) pressure at **B**.

2.1.5 The (eye/eyewall) can be found at **C**.

2.1.6 The likely name of the tropical cyclone, if it developed on the 1st January, would be (Ann/Dineo).

2.1.7 The moisture at **D** has been changed into gas form, through the process of (condensation/evaporation).

2.1.8 Tropical cyclones move (eastward/westward), as they are driven by trade winds. (8 x 1) (8)

2.2 Refer to FIGURE 2.2, on different drainage patterns. Match each of the descriptions below with one of the drainage patterns. Write **ONLY ONE** pattern next to the question number (2.1.1–2.2.7) in the ANSWER BOOK. You may choose the same drainage pattern more than **ONCE**.

2.2.1 Will develop on well jointed igneous rocks

2.2.2 Develops on rocks that are of equal resistance to erosion

2.2.3 Tributaries join the mainstream at right-angles from anticlines

2.2.4 There are right-angle bends in the individual stream

2.2.5 It is dependent on both the geology and topography of a landscape

2.2.6 Follows the slopes of the terrain

2.2.7 The rivers cut gaps into the landscape (7 x 1) (7)

2.3 FIGURE 2.3 refers to the positions of an anticyclone during winter and summer.

- 2.3.1 What is an *anticyclone*? (1 x 1) (1)
- 2.3.2 Name anticyclone **A**. (1 x 1) (1)
- 2.3.3 Name the global pressure belt that anticyclone **A** forms part of. (1 x 1) (1)
- 2.3.4 Account for the different positions of anticyclone **A** during the different seasons represented by FIGURE 2.3. (2 x 2) (4)
- 2.3.5 In a paragraph of EIGHT lines, explain how the different positions of anticyclone **A** will influence the weather of **B** during the different seasons. (4 x 2) (8)

2.4 FIGURE 2.4 is an illustration of a characteristic of urban climate.

- 2.4.1 Identify the characteristic of urban climate being illustrated in the sketch. (1 x 1) (1)
- 2.4.2 Refer to areas **A** and **B**.
- (a) In which area **A** or **B** will the urban climate characteristic (answer to QUESTION 2.4.1) be more visible? (1 x 1) (1)
- (b) Explain your choice. (Answer to QUESTION 2.4.2 (a)) (1 x 2) (2)
- 2.4.3 Draw a labelled sketch to illustrate a pollution dome at night. (3 x 1) (3)
- 2.4.4 Account for the wind's direction from the rural to the urban area. (1 x 2) (2)
- 2.4.5 Refer to the urban and rural temperature boundary layers.
- (a) Differentiate between the temperatures of the rural and urban boundary layers. (1 x 2) (2)
- (b) Explain this difference mentioned in QUESTION 2.4.5(a). (2 x 2) (4)

2.5 Refer to FIGURE 2.5, showing the longitudinal and cross profiles of rivers and graphs indicating width, depth, velocity and gradient discharge during the different stages of a river.

- 2.5.1 Define the term *longitudinal profile* of a river. (1 x 1) (1)
- 2.5.2 Name any TWO fluvial landforms that form in the upper course of the river. (2 x 1) (2)
- 2.5.3 Explain why this river will be regarded as overgraded. (1 x 2) (2)
- 2.5.4 Refer to the different graphs.
- (a) Differentiate between the depths of the river in the upper and lower courses. (1 x 2) (2)
- (b) Comment on the difference in width between the upper course and middle course. (2 x 2) (4)
- (c) Explain why the velocity (speed) in the lower course is higher than the velocity in the upper course in relation to their respective gradients. (2 x 2) (4)

2.6 Study FIGURE 2.6, which depicts drainage basin management.

- 2.6.1 What is *water insecurity*? (1 x 1) (1)
- 2.6.2 Identify TWO activities from the sketch, which would contribute to water insecurity. (2 x 1) (2)
- 2.6.3 Comment on the importance of proper ground water management in the illustrated town. (2 x 2) (4)
- 2.6.4 In a paragraph of approximately EIGHT lines, explain how the TWO activities (mentioned in QUESTION 2.6.2) will negatively impact on the sustainability of the fishing industry in the Bay area. (4 x 2) (8)

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

3.1 FIGURE 3.1 is a cycle of stagnation in rural areas. Match the descriptions below with a phrase from the sketch (except QUESTION 3.1.1). Write ONLY the term/word of your choice next to the question number (3.1.1–3.1.8) in the ANSWER BOOK.

- 3.1.1 Name the process responsible for the stagnation as illustrated in the sketch.
- 3.1.2 The buying power of the area declines
- 3.1.3 The rural area becomes abandoned
- 3.1.4 An unproductive workforce remains behind
- 3.1.5 Effect of rural depopulation
- 3.1.6 Infrastructure is not properly maintained
- 3.1.7 Businesses become bankrupt
- 3.1.8 Decline of agricultural activities (8 x 1) (8)

3.2 Choose the correct term/phrase that matches the description below. Write the correct term/word next to the question number (3.2.1–3.2.7) in the ANSWER BOOK.

growth points; deconcentration points; spatial development initiatives; industrial development zone; Maputo Corridor; centralisation; Reconstruction and Development program; Growth, Employment and Redistribution; decentralisation

- 3.2.1 A program to initiate and support a series of development corridors stretching across South Africa
- 3.2.2 Each of these areas is directly connected to a harbour or port
- 3.2.3 A pre-1994 development strategy, where industries were set up in remote areas with adequate infrastructure
- 3.2.4 A strategy concentrating on meeting people's basic needs
- 3.2.5 When industries and activities are concentrated around a central point or economic advantage
- 3.2.6 Pre-apartheid economic strategy, where industrial development sites were located outside main metropolitan areas
- 3.2.7 This trade infrastructure connects Gauteng with the capital of Mozambique (7 x 1) (7)

3.3 Refer to the photograph of a rural settlement pattern in FIGURE 3.3.

- 3.3.1 Name the shape of the settlement in the photo. (1 x 1) (1)
- 3.3.2 Give evidence from the photograph to support your answer mentioned in QUESTION 3.3.1. (1 x 2) (2)
- 3.3.3 Why is this settlement a nucleated rural settlement? (2 x 1) (2)
- 3.3.4 Explain how relief (topography) and water influenced the nucleated pattern of the settlement. (2 x 2) (4)
- 3.3.5 Comment on the fact that the river will have a negative economic impact on the inhabitants of the settlement. (3 x 2) (6)

3.4 The cartoon in FIGURE 3.4 is an example of urban decay in the city centre.

- 3.4.1 Define the term *urban decay*. (1 x 1) (1)
- 3.4.2 Name TWO indicators of urban decay in the cartoon. (2 x 1) (2)
- 3.4.3 Explain TWO factors which may have contributed to urban decay in the cartoon. (2 x 2) (4)
- 3.4.4 In a paragraph of approximately EIGHT lines, explain how urban renewal will help to solve the problem of urban decay. (4 x 2) (8)

3.5 Study the graphs depicting the volume of mining production (2012–2017) and the exchange rates (2016–2017) in FIGURE 3.5.

- 3.5.1 Why is mining a *primary activity*? (1 x 1) (1)
- 3.5.2 Identify the year or years when the volume of mining production was at its lowest and highest. (2 x 1) (2)
- 3.5.3 Refer to the volumes of mining production (2012–2017) and the exchange rates between 2016 and 2017.
- (a) Describe the trends of the volume of mining production between March 2016 and March 2017. (2 x 1) (2)
- (b) Explain why the decrease in the exchange rates may have caused these trends (answer to QUESTION 3.5.3(a)), between March 2016 and March 2017. (1 x 2) (2)
- (c) Mention TWO other factors (besides exchange rate), that may have contributed to the trends (answer to QUESTION 3.5.3(a)) between March 2016 and March 2017. (2 x 2) (4)
- 3.5.4 Evaluate how a labour force can increase profits in the mining industry. (2 x 2) (4)

3.6 Refer to the extract on GEAR in South Africa in FIGURE 3.6.

- 3.6.1 What does the acronym GEAR stand for? (1 x 1) (1)
- 3.6.2 According to the article, what are the TWO main focuses of GEAR? (2 x 1) (2)
- 3.6.3 Justify the fact that GEAR was implemented to improve 'the economic situation of the marginalised (disregarded) majority' in South Africa. (2 x 2) (4)
- 3.6.4 GEAR was only moderately successful in achieving some of its goals. In a paragraph of approximately EIGHT lines, explain TWO goals and TWO failures of GEAR. (4 x 2) (8)
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QUESTION 4

- 4.1 Choose a term from COLUMN B that matches the description in COLUMN A. Write only word the letter (A–G) next to the question number (3.2.1–3.2.7) in the ANSWER BOOK, for example 3.2.8 H.

COLUMN A		COLUMN B	
4.1.1	Supplies high and low order goods and is found in suburbs	A	Outlying business district
4.1.2	Found on pavements in all retail and residential areas	B	Isolated shops
4.1.3	Found some distance from the CBD, near intersections or highways in the rural-urban fringe	C	Neighborhood shopping centre
4.1.4	Found at crossings of main roads leading into suburbs	D	Spaza shops
4.1.5	Usually along main roads linking the CBD and the suburbs	E	Informal traders
4.1.6	Most accessible area dominated by skyscrapers	F	Commercial ribbon development
4.1.7	Shops that decentralised to the neighbourhoods	G	Planned regional shopping centre
		H	Central business district

(7 x 1) (7)

- 4.2 Choose the correct word/term from those given in brackets. Write ONLY the word/term next to the question number (4.2.1–4.2.8) in the ANSWER BOOK.
- 4.2.1 (GDP/GNP) is the value of all goods and services produced over a specific period.
- 4.2.2 When a small amount of agricultural produce is obtained from a large piece of land, it is called (intensive/extensive) farming.
- 4.2.3 (Economy/Trade) refers to the industrial and commercial activity of a country.
- 4.2.4 Products which are specifically produced for the locals of a country is referred to as the (home/export) market.
- 4.2.5 (Resource/Market) orientated industries are situated near the people who buy the products.
- 4.2.6 Subsistence farming is an example of (large/small) scale farming.
- 4.2.7 The point where goods are being transferred from one mode of transport to another, is called the (shipping/break-of-bulk) point.
- 4.2.8 The (economically active/economically stable) is that part of the population who is either working, or looking for work. (8 x 1) (8)
- 4.3 Refer to the article on rural transformation as a solution to poverty in South Africa in FIGURE 4.3.
- 4.3.1 How many people live in rural areas in South Africa? (1 x 1) (1)
- 4.3.2 Define the term *social justice*. (1 x 1) (1)
- 4.3.3 Mention TWO injustices from the article that South Africans are currently facing. (2 x 1) (2)
- 4.3.4 Name and explain ONE land reform policy that was implemented in South Africa, to ensure rural transformation. (1 + 2) (3)
- 4.3.5 In a paragraph of approximately EIGHT lines, explain how land reform in South Africa may reduce poverty. (4 x 2) (8)

4.4 Refer to FIGURE 4.4 that depicts urban expansion over time.

4.4.1 How is FIGURE 4.4 an example of an urban profile? (1 x 1) (1)

4.4.2 Explain the importance of an urban profile for city planners. (2 x 2) (4)

4.4.3 Urban expansion is being depicted over time.

(a) Explain the concept *urban expansion*. (1 x 1) (1)

(b) Name the land-use zone where urban expansion has most likely taken place. (1 x 1) (1)

(c) Evaluate how urban expansion impacts negatively on the environment. (2 x 2) (4)

4.4.4 Comment on the positive impact that urban expansion will have on the inhabitants of an urban area. (2 x 2) (4)

4.5 Refer to the article on manufacturing in South Africa in FIGURE 4.5.

4.5.1 Define the term *manufacturing*. (1 x 1) (1)

4.5.2 Give evidence from the article that confirms South Africa's declining manufacturing sector. (1 x 1) (1)

4.5.3 Name TWO factors, from the article, that make it difficult for South Africa to increase manufacturing. (2 x 1) (2)

4.5.4 Explain how high energy costs contribute to the underperformance of the manufacturing sector. (2 x 2) (4)

4.5.5 In a paragraph of approximately EIGHT lines, explain the positive impact of beneficiated goods for manufacturing (4 x 2) (8)

4.6 Refer to FIGURE 4.6, an extract on the West Coast Investment Initiative.

4.6.1 In which province is the West Coast Investment Initiative situated? (1 x 1) (1)

4.6.2 Name ONE project each from the extract, that will be centred in a secondary and tertiary economic activity. (2 x 1) (2)

4.6.3 Explain how improved infrastructure facilities will increase investment in the Saldanha Bay region. (3 x 2) (6)

4.6.4 Refer to the zinc smelter project mentioned in the extract.

(a) Why is the zinc smelter project at the port of Saldanha Bay? (1 x 1) (1)

(b) Evaluate the negative impact that this zinc smelter project may have on the environment around Saldanha Bay. (2 x 2) (4)

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GRAND TOTAL: 225