



Province of the  
**EASTERN CAPE**  
EDUCATION

**NATIONAL  
SENIOR CERTIFICATE**

**GRADE 12**

**JUNE 2017**

**GEOGRAPHY P1**

**MARKS: 225**

**TIME: 3 hours**



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This question paper consists of 12 pages.

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**INSTRUCTIONS AND INFORMATION**

1. This question paper consists of THREE questions.
2. Answer all 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. 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 Choose the correct word(s) from those given in brackets to complete the terminology associated with valley climates.
- 1.1.1 (Slope aspect/shadow zone) refers to an area that does not receive perpendicular sunlight.
- 1.1.2 At night air on the slopes of the valley, cools rapidly due to (radiant energy/terrestrial radiation).
- 1.1.3 If dew point is below freezing point, water vapour condenses directly into (fog/frost).
- 1.1.4 In mountainous areas where there are valleys with steep slopes, people tend to build their houses on (south facing/north facing) slopes in the northern hemisphere.
- 1.1.5 A (valley/mountain) breeze blows towards the valley floor.
- 1.1.6 A warm layer with cold air below, causing an inversion is known as a (frost pocket/thermal belt).
- 1.1.7 Plants requiring more sunlight and less moisture grow best on (north/south) facing slopes in the Southern Hemisphere.
- 1.1.8 Air movement within a valley may have little influence on (regional/local) climates. (8 x 1) (8)
- 1.2 Refer to FIGURE 1.2 and match the geomorphological description below with one of the letters (A–F) in the FIGURE. You may choose the same letter more than once.
- 1.2.1 A spur, mountain or ridge that separates two drainage basins
- 1.2.2 An example of a second order stream
- 1.2.3 The ultimate base level of erosion
- 1.2.4 Starting point of a river
- 1.2.5 Point where flooding is most likely to occur
- 1.2.6 Changes its position during the process of abstraction
- 1.2.7 Deltas form at this point of the river (7 x 1) (7)

1.3 Study FIGURE 1.3 showing the mature stage of a mid-latitude cyclone.

1.3.1 What is a *mid-latitude cyclone*? (1 x 1) (1)

1.3.2 Provide evidence from the sketch that indicates that the mid-latitude cyclone is in its mature stage. (2 x 1) (2)

1.3.3 Discuss TWO conditions that promote the development of mid-latitude cyclones. (2 x 2) (4)

1.3.4 Refer to the cold fronts and warm fronts in the sketch

(a) What is the significance of the isobars bending across the fronts? (1 x 2) (2)

(b) Why are the fronts moving in an easterly direction? (1 x 2) (2)

(c) Explain how the warm and cold fronts in the mature stage develop into an occluded front. (2 x 2) (4)

1.4 Refer to FIGURE 1.4 showing factors influencing the weather of South Africa.

1.4.1 Identify the high pressure system at **A**. (1 x 1) (1)

1.4.2 Name any ONE characteristic of this high pressure cell (ANSWER to QUESTION 1.4.1). (1 x 1) (1)

1.4.3 Differentiate how the two ocean currents in the sketch affect temperatures on the eastern and western sides of the country. (2 x 1) (2)

1.4.4 Refer to the high pressure system at **B**.

(a) Give ONE reason for its existence. (1 x 1) (1)

(b) Why is this high pressure system sometimes referred to as a 'blocking high'? (1 x 2) (2)

(c) In a paragraph of approximately EIGHT lines, evaluate how this high pressure system interacts with the Kalahari (Continental) High to influence the rainfall of the country in winter. (4 x 2) (8)

1.5 FIGURE 1.5 shows fluvial landforms.

- 1.5.1 What is a *floodplain*? (1 x 1) (1)
- 1.5.2 Name the fertile silt that is found on the floodplain. (1 x 1) (1)
- 1.5.3 State ONE condition necessary for the formation of natural levees. (1 x 1) (1)
- 1.5.4 Explain TWO factors that could result in a levee being stabilised over time. (2 x 2) (4)
- 1.5.5 In a paragraph of approximately EIGHT lines describe with reasons the changes that would occur on the floodplain if the levee was destroyed. (4 x 2) (8)

1.6 Read the extract in FIGURE 1.6 based on a river catchment area in South Africa.

- 1.6.1 What is a *catchment area*? (1 x 1) (1)
- 1.6.2 How many people does the Buffalo River catchment area support? (1 x 2) (2)
- 1.6.3 Explain how the sustainability of the river will suffer as a result of so many people living in the catchment area. (2 x 2) (4)
- 1.6.4 Discuss the negative impact that the four dams will have on the catchment area of the Buffalo River. (2 x 2) (4)
- 1.6.5 Suggest TWO steps that can be taken to manage the Buffalo River catchment area. (2 x 2) (4)

**[75]**

**QUESTION 2**

2.1 Refer to FIGURE 2.1 showing the difference in temperature between rural and urban areas. Indicate whether EACH of the statements describes an URBAN or a RURAL area. Write only URBAN or RURAL next to the question numbers (2.1.1–2.1.7) in the ANSWER BOOK.

2.1.1 Greater instability results in more frequent thunderstorms

2.1.2 More evapotranspiration is likely to occur

2.1.3 Smog lowers visibility in this area

2.1.4 Combustion processes and the burning of fossil fuels add more dust and smoke particles

2.1.5 More sunshine reaches the surface in this area

2.1.6 Turbulent air movement form because of more friction

2.1.7 More precipitation is likely, because of a higher possibility of condensation and cloud formation (7 x 1) (7)

2.2 Choose a term from COLUMN B that matches the geomorphological description in COLUMN A. Write only the letter (A–I) next to the question number (2.2.1–2.2.8) in the ANSWER BOOK.

COLUMN A	COLUMN B
2.2.1 The lowest level to which a river can erode	A River capture
2.2.2 Is the renewed ability of a river to erode into a landscape	B Paired terraces
2.2.3 Indicates a change in gradient in the longitudinal profile of a river	C Isostasy
2.2.4 Meanders which are formed through vertical erosion in the lower course	D Base level of erosion
2.2.5 Topographic steps on either side of the river valley	E Rejuvenation
2.2.6 Smooth and concave from source to mouth	F Graded
2.2.7 When a more powerful river cuts back at its source and takes the headwaters of a neighbouring river	G Entrenched
2.2.8 Uplifting of a landmass	H Ingrown
	I Knickpoint

(8 x 1) (8)

- 2.3 Study FIGURE 2.3 showing tropical cyclone Dineo.
- 2.3.1 How many tropical cyclones occurred before tropical cyclone Dineo? (1 x 1) (1)
- 2.3.2 What evidence in FIGURE 2.3 indicates that tropical cyclone Dineo is in the mature stage of its development? (2 x 1) (2)
- 2.3.3 The path of the tropical cyclone Dineo suggests that it is moving in on South Africa. Account for the rainfall that accompanies the tropical cyclone and how it will affect parts of South Africa. (2 x 2) (4)
- 2.3.4 In a paragraph of approximately EIGHT lines, evaluate why the impact of tropical cyclone Dineo is likely to be more severe in a country like Mozambique, than in more developed countries. (4 x 2) (8)
- 2.4 Study FIGURE 2.4 showing a cut off low pressure.
- 2.4.1 Differentiate between a *cut off low pressure* and a *coastal low pressure*. (2 x 1) (2)
- 2.4.2 What evidence is there in FIGURE 2.4 to suggest that a cut off low pressure has formed? (1 x 1) (1)
- 2.4.3 What parts of the country is most likely to be affected by the weather associated with a cut off low pressure? (2 x 1) (2)
- 2.4.4 Explain how a cut off low pressure forms. (2 x 2) (4)
- 2.4.5 Discuss the negative impact that the weather conditions associated with a cut off low pressure will have on farming. (3 x 2) (6)
- 2.5 FIGURE 2.5 is a sketch showing two drainage patterns.
- 2.5.1 What is a *drainage pattern*? (1 x 1) (1)
- 2.5.2 Name the drainage patterns at **A** and **B**. (2 x 1) (2)
- 2.5.3 Explain ONE requirement for drainage pattern **A** to develop. (1 x 2) (2)
- 2.5.4 Describe TWO characteristics of drainage pattern **B** evident from the diagram. (2 x 1) (2)
- 2.5.5 Explain the role that the underlying rock structure plays in the development of the pattern at **B**. (2 x 2) (4)
- 2.5.6 Draw a simple, plan view sketch of a drainage pattern that will develop in well-jointed rocks, such as granite. (2 x 2) (4)

2.6 FIGURE 2.6 is a sketch showing the longitudinal and cross profiles of a typical river.

- 2.6.1 What is a *longitudinal profile* of a river? (1 x 1) (1)
- 2.6.2 Name the type of stream flow that will dominate the upper valley and the lower reaches respectively. (2 x 1) (2)
- 2.6.3 Explain why the river is likely to meander in the middle reaches. (2 x 2) (4)
- 2.6.4 In a paragraph of approximately EIGHT lines explain why the shape of the valley changes in the upper, middle and lower courses. (4 x 2) (8)
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**SECTION B: RURAL AND URBAN SETTLEMENTS****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 ANSWERBOOK.
- 3.1.1 A (wet point/dry point) site occurs in dry areas where water may be scarce.
- 3.1.2 The amounts of capital and labour are small in relation to land area utilised in (extensive/intensive) commercial farming.
- 3.1.3 (Primary/Secondary) activities are the main economic activity supporting rural settlements.
- 3.1.4 Settlements that develop as a result of trade are referred to as (T-shaped/cross road) settlements.
- 3.1.5 Farmers in (dispersed/nucleated) settlements generally make larger profits.
- 3.1.6 (Subsistence/commercial) farming may focus on monoculture to meet their needs.
- 3.1.7 The defensive site of a rural settlement is determined by (flat/high) ground. (7 x 1) (7)
- 3.2 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 (3.2.1–3.2.8).
- 3.2.1 The unplanned or uncontrolled spread of the built up urban environment is known as ...
- A the level of urbanisation.  
B urban growth.  
C urban sprawl.  
D the rate of urbanisation.
- 3.2.2 Which one of the following characterises the Central Place theory?
- A The surrounding area will take the shape of a circle  
B Developed by Burgess in 1933  
C The surrounding area would take the shape of a hexagon  
D Developed by Hoyt in 1939

3.2.3 ... refers to the maximum distance that people are prepared to travel in order to obtain goods or services.

- A Threshold population
- B Range
- C Sphere of influence
- D Urban hierarchy

3.2.4 Towns found at important roads, railways or rivers are referred to as ... towns.

- A specialised
- B gap
- C central
- D junction

3.2.5 The upgrading and modernising of houses or areas within in the city zone is known as ...

- A facadism.
- B rezoning.
- C gentrification.
- D urbanisation.

3.2.6 The mutual attraction of similar functions in the city is known as ...

- A functional magnetism.
- B functional prestige.
- C functional convenience.
- D functional range.

3.2.7 ...is the reverse trend to urbanisation where people move back to rural areas.

- A New ruralism
- B Counter urbanisation
- C Sustainable settlements
- D New towns

3.2.8 Which ONE of the following does not characterise a radial concentric street pattern?

- A Roads radiate outwards from a central point
- B Pattern looks like a spider's web
- C Occurs in planned urban areas
- D The roads intersect at right angles

(8 x 1) (8)

- 3.3 FIGURE 3.3 shows trends in the urban and rural population of the world.
- 3.3.1 Between what years was urban and rural population the same? (1 x 1) (1)
- 3.3.2 What trend is evident about the rural population today? (1 x 2) (2)
- 3.3.3 Account for this trend (ANSWER to QUESTION 3.3.2) by referring to the influence of environmental factors in rural areas. (2 x 2) (4)
- 3.3.4 Discuss TWO social consequences of this trend (your answer in QUESTION 3.3.2). (2 x 2) (4)
- 3.3.5 Comment on TWO sustainable strategies to reverse the trend, illustrated by the rural population. (2 x 2) (4)
- 3.4 FIGURE 3.4 shows various stakeholders discussing the issue of land redistribution.
- 3.4.1 Define the term *land redistribution*. (1 x 1) (1)
- 3.4.2 Suggest a reason why the discussion is so intense in the sketch. (1 x 2) (2)
- 3.4.3 Discuss TWO goals/purposes that land redistribution hopes to achieve in post-apartheid South Africa. (2 x 2) (4)
- 3.4.4 In paragraph of approximately EIGHT lines evaluate the challenges that authorities and stakeholders have been encountered in achieving these goals/purposes. (4 x 2) (8)
- 3.5 FIGURE 3.5 shows a planned regional shopping centre.
- 3.5.1 Give another term used to describe this planned regional shopping centre. (1 x 1) (1)
- 3.5.2 State ONE factor that determines the location of these planned shopping centres. (1 x 1) (1)
- 3.5.3 Give TWO reasons why these planned shopping centres are so popular among consumers. (2 x 2) (4)

3.5.4 These planned regional shopping centres are the outcome of commercial decentralisation.

- (a) What is *commercial decentralisation*? (1 x 1) (1)
- (b) Why do you think that commercial decentralisation has occurred? (2 x 2) (4)
- (c) Evaluate the negative impact that commercial decentralisation has on the CBD. (2 x 2) (4)

3.6 FIGURE 3.6 shows an issue related to rapid urbanisation.

- 3.6.1 What is *urbanisation*? (1 x 1) (1)
  - 3.6.2 Name TWO issues related to rapid urbanisation that is depicted in the photo. (2 x 1) (2)
  - 3.6.3 Discuss TWO attempts made by the government to address the issues mentioned in QUESTION 3.6.2. (2 x 2) (4)
  - 3.6.4 The inability of the relevant authorities to address the issues mentioned above fast enough has resulted in the increase in informal settlements. In a paragraph of approximately EIGHT lines evaluate how the inhabitants of informal settlements and their activities negatively affect the social environment of urban settlements. (4 x 2) (8)
- [75]**

**TOTAL: 225**







