



Province of the
EASTERN CAPE
EDUCATION

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12


SEPTEMBER 2017

**GEOGRAPHY P1
MARKING GUIDELINE**

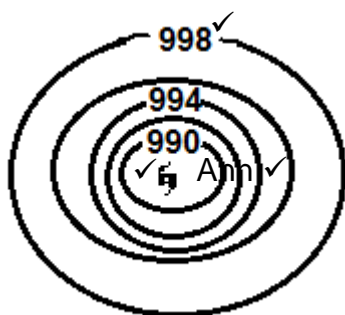
MARKS: 225

This marking guideline consists of 15 pages.

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

- 1.1 1.1.1 C (off shore) ✓
- 1.1.2 D (1012) ✓
- 1.1.3 B  ✓
- 1.1.4 A (Winter) ✓
- 1.1.5 D (southwest) ✓
- 1.1.6 B (weaker) ✓
- 1.1.7 C (southeast) ✓ (7 x 1) (7)
- 1.2 1.2.1 Confluence ✓
- 1.2.2 Interfluve ✓
- 1.2.3 Water table ✓
- 1.2.4 River system ✓
- 1.2.5 Watershed ✓
- 1.2.6 Abstraction ✓
- 1.2.7 Stream orders ✓
- 1.2.8 Infiltration ✓ (8 x 1) (8)
- 1.3 1.3.1 Warm moist air. ✓
Ocean temperatures above 26,5 °C. ✓ (2 x 1) (2)
- 1.3.2 (a) A – Eye ✓
B – Eye wall ✓ (2 x 1) (2)
- (b) The air is descending at A, and rising/ascending at B. ✓✓
(1 x 2) (2)
- (c) A – High pressure in the upper layers of the atmosphere is causing some of the air to descend. ✓
B – Convergence of air on the surface because of low pressure is forcing the air to rise. ✓ (2 x 1) (2)

1.3.3



1 mark for air pressure below 1 000 hPa

1 mark for name

1 mark for sign of the eye

(3 x 1)

(3)

1.3.4 Fishing industry will suffer because the boats cannot go out to sea ✓✓

Harbour will be destroyed and repairs will have to be done ✓✓

Businesses and Industries will suffer severe losses ✓✓

Property and Infrastructure will be damaged ✓✓

Tourism industry will suffer losses ✓✓

Flooding will have a negative ripple effect on farming ✓✓

Destruction will lead to unemployment ✓✓

(Any TWO)

(2 x 2)

(4)

1.4 1.4.1 Temperature inversion ✓

(1 x 1)

(1)

1.4.2 During clear, windless nights, air on the high grounds at the sides of the valley, cools down ✓✓

This is due to terrestrial radiation ✓✓

Cold air drains down the slopes and accumulates at the valley bottom, ✓✓ forcing warmer air to rise ✓✓

The rising warm air forms a thermal belt midway up the valley ✓✓

This causes a temperature inversion layer, where temperature increases with height ✓✓

(Any TWO)

(2 x 2)

(4)

1.4.3 Slope A is in the shadow zone and therefore experience less evaporation, with the moisture content of the soil higher encouraging faster and lusher growth of vegetation. ✓✓

(1 x 2)

(2)

1.4.4 **Reasons for the temperature at B**

Sunrays strike the area more slanted/obliquely, therefore less heating during the day ✓✓

Larger area to be heated ✓✓

Sunrays penetrates a denser atmospheric layer causing more heat to be absorbed or dispersed, before it reaches the slope, therefore less heating ✓✓

Katabatic flow during the night causes cold air to accumulate on the valley floor

Temperatures drop to below freezing point (0 °C) ✓✓

Influence on crops

Oranges are frost resistant, therefore they are grown on the valley floor where cold air accumulates ✓✓

(Any FOUR – BOTH REASONS FOR TEMPERATURE AND INFLUENCE ON CROPS MUST BE MENTIONED.) (4 x 2) (8)

- 1.5 1.5.1 The manner in which the streams are arranged in a particular drainage basin. ✓
(**Concept**) (1 x 1) (1)
- 1.5.2 **A** – Rectangular ✓
B – Trellis ✓ (2 x 1) (2)
- 1.5.3 **A** – The mainstream and its tributaries have right angled bends ✓✓

B – The mainstream flows in a valley area and the tributaries join the mainstream at right angles from a high lying area. ✓✓ (2 x 2) (4)
- 1.5.4 Developed due to underlying horizontally layered igneous rocks which has cracked or jointed. ✓✓
The cracks and joints are exposed to erosion, and the water from stream/river will flow/incise along the cracks and joints. ✓✓ (2 x 2) (4)
- 1.5.5 **A** – Hard resistant rocks are causing less channels to be eroded and fewer streams in the basin will result in low density. ✓✓

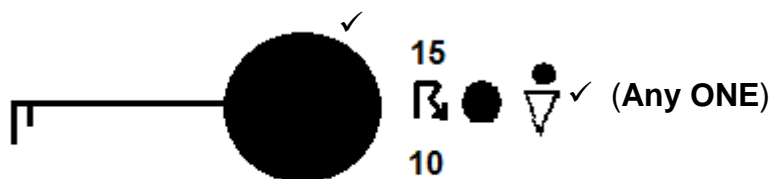
B – Softer less resistant rocks can easily be eroded as a result more channels are created for stream flow and higher drainage density is the result. ✓✓ (2 x 2) (4)

- | | | | | | |
|-------|--|--|---------|---------|-----|
| 1.6 | 1.6.1 | Upper course ✓ | (1 x 1) | (1) | |
| | 1.6.2 | Narrow ✓ | (1 x 1) | (1) | |
| | 1.6.3 | (a) Turbulent ✓ | (1 x 1) | (1) | |
| | | (b) Resistant layer or outcrop is dipping upstream. ✓✓
The bedrock upstream and downstream is less resistant and is easily eroded, exposing the outcrop. ✓✓
The slope created on the more resistant bedrock is causing the stream water to flow faster. ✓✓
(Any TWO) | (2 x 2) | (4) | |
| 1.6.4 | In the upper course of the river, there will be downward erosion and deep, V-shaped valleys occurs. ✓✓
Temporary base levels of erosion like rapids and waterfalls will be eroded away through headward erosion. ✓✓
In the middle course lateral erosion dominates. ✓✓
This will widen the river valley and will remove the remaining spurs and other high lying areas. ✓✓
The lower course is dominated by deposition. ✓✓
The area is relatively flat in the lower course and this gentle gradient is maintained through deposition. ✓✓
(Any FOUR) | | | (4 x 2) | (8) |

[75]

QUESTION 2

- 2.1 2.1.1 B to A ✓
- 2.1.2 B ✓
- 2.1.3 A ✓
- 2.1.4 A ✓
- 2.1.5 B ✓
- 2.1.6 A ✓
- 2.1.7 B ✓
- 2.1.8 A ✓ (8 x 1) (8)
- 2.2 2.2.1 Laminar ✓
- 2.2.2 Turbulent ✓
- 2.2.3 Turbulent ✓
- 2.2.4 Laminar ✓
- 2.2.5 Turbulent ✓
- 2.2.6 Turbulent ✓
- 2.2.7 Laminar ✓ (7 x 1) (7)
- 2.3 2.3.1 Winter ✓ (1 x 1) (1)
- 2.3.2 Mid-latitudes are low pressure systems ✓ (1 x 1) (1)
- 2.3.3 From Friday to Monday heavy rain and cold conditions are forecasted. ✓✓
As one mid latitude cyclone moves away from Cape Town another approaches ✓✓
This results in continuous frontal conditions. ✓✓
(Any TWO) (2 x 2) (4)
- 2.3.4



(2 x 1) (2)

- 2.3.5 (a) Backing ✓ (1 x 1) (1)
- (b) The wind changes in an anti-clockwise direction in a system where the air movement is clockwise. ✓✓ (1 x 2) (2)
- (c) During Monday the warm sector is dominated by North westerly winds driven by the westerly wind belt ✓✓
As the cold front moves over the area is dominated by the cold sector, with south westerly winds which is driven by the Polar easterlies ✓✓ (2 x 2) (4)
- 2.4 2.4.1 Direct short wave sunrays ✓ /Incoming solar radiation ✓
(CONCEPT) (1 x 1) (1)
- 2.4.2 Urban areas receive 13–17% less insolation. ✓✓ (1 x 2) (2)
- 2.4.3 Insolation is less in urban areas because of more smoke, dust and pollution particles reflecting sunrays away from the surface. ✓✓
The dust particles also limits terrestrial radiation ✓✓
Artificial surfaces, artificial production of heat units, high buildings etc. either absorbs or creates more heat over the urban areas. ✓✓
(Any TWO) (2 x 2) (4)
- 2.4.4 **Higher precipitation**
Urban areas have more condensation nuclei (dust and pollution particles) around which condensation occur. ✓✓
Greater thermal convection due to heat island effect is causing higher rainfall. ✓✓
When the wind hits the tall buildings it rises, cools off and condense to form clouds and eventually rainfall. ✓✓
Lower relative humidity
Less vegetation over urban areas decreases the transpiration rate ✓✓
Storm water drainage systems carries runoff away, therefore evaporation decreases ✓✓
(Any FOUR – MUST MAKE MENTION OF BOTH.) (4 x 2) (8)
- 2.5 2.5.1 Meander neck ✓ (1 x 1) (1)
- 2.5.2 (a) **X** – Erosion ✓
Y – Deposition ✓ (2 x 1) (2)
- (b) The river flows faster at the outer bank and is undercutting the area ✓✓
Repetition of undercutting will eventually cause the top part of the bank to tumble ✓✓
The bank will start to retreat ✓✓
(Any TWO) (2 x 2) (4)

- 2.5.3 The river bend in STAGE 2 is very pronounced reducing the speed of the river, hence causing water to build-up because of the delay and will eventually overflow. ✓✓
A straighter channel in STAGE 4 will increase the speed of the river, therefore no accumulation of water takes place. ✓✓ (2 x 2) (4)
- 2.5.4 During heavy rainfall periods or flooding the river will cut through the neck of the meander. ✓✓
Deposition next to the bank will eventually block off the meander completely. ✓✓ (2 x 2) (4)
- 2.6 2.6.1 **A** – Wind gap ✓
B – Elbow of capture ✓ (2 x 1) (2)
- 2.6.2 (a) Watershed ✓ (1 x 1) (1)
- (b) Due to headward erosion the watershed will be removed or lowered ✓✓
River at D will eventually cut through the watershed due to headward erosion ✓✓
(Any ONE) (1 x 2) (2)
- 2.6.3 Transport routes can be constructed through the gap in the mountain, which was the result of river capture. This will shorten the distance to either side of the mountain. ✓✓ (1 x 2) (2)
- 2.6.4 The environment will be negatively affected
Biodiversity will be destroyed ✓✓
Aquatic life will be reduced or will totally disappear ✓✓
Ecosystems disturbed ✓✓
Natural habitats will be destroyed ✓✓
The river will eventually dry up if extensive periods of low rainfall occur ✓✓
The water table will be lowered ✓✓
(Any FOUR) (4 x 2) (8)

[75]

QUESTION 3

- 3.1 3.1.1 Ribbon development ✓
- 3.1.2 CBD ✓
- 3.1.3 Regional shopping centre ✓
- 3.1.4 Isolated shops ✓
- 3.1.5 CBD ✓
- 3.1.6 Outlying business centre ✓
- 3.1.7 Neighbourhood shopping centre ✓ (7 x 1) (7)
- 3.2 3.2.1 Gross Domestic Product ✓
- 3.2.2 Informal sector ✓
- 3.2.3 Beneficiation ✓
- 3.2.4 Footloose ✓
- 3.2.5 Import replacement ✓
- 3.2.6 Food security ✓
- 3.2.7 Decentralisation ✓
- 3.2.8 Foreign Exchange ✓ (8 x 1) (8)
- 3.3 3.3.1 It is unifunctional because primary economic activities dominate ✓ (1 x 1) (1)
- 3.3.2 Isolated / Dispersed ✓ (1 x 1) (1)
- 3.3.3 **Relief**
 Hilly and mountainous areas influenced the isolated pattern. ✓✓
- Water availability**
 When water is readily and easy available it encourages dispersed settlements. ✓✓ (2 x 2) (4)
- 3.3.4 Its extensive because a large area is being used for farming ✓✓
AND ANY ONE OF COMMERCIAL
 It is commercial because outbuildings for the storage of either equipment or products can be identified ✓✓
 It is commercial because the farm area is divided into camps to reduce soil erosion ✓✓
[LEARNERS MUST REFER TO BOTH ASPECTS TO OBTAIN MAXIMUM MARKS.] (2 x 2) (4)
- 3.3.5 Farmer can use his machinery extensively ✓✓
 The farmer does not need to share any of his equipment ✓✓
 The farmer's land is not fragmented ✓✓
 The farmer decides on his own how he want to manage the farm ✓✓
 Makes his own decisions ✓✓
(Any TWO) (2 x 2) (4)

- 3.4 3.4.1 It is a situation on the public roads that occurs because of more vehicles than the road can handle. ✓
(**Concept**) (1 x 1) (1)
- 3.4.2 Separation between residence and workplace ✓
Commuter population
Overconcentration of activities in the CBD of cities ✓
Outdated street plan and pattern ✓
Rapid urbanisation ✓
Rural-urban migration ✓
(**Any TWO**) (2 x 1) (2)
- 3.4.3 If people used public transport it would decrease traffic congestion ✓✓
The driver expects others to use public transport when he himself is not ✓✓ (1 x 2) (2)
- 3.4.4 (a) Road rage / Frustration / Anger
(**ANY NEGATIVE EMOTION**) (1 x 1) (1)
- (b) Health problems like heart attacks, respiratory problems etc. may occur. ✓✓
Because of frustration more accidents may happen ✓✓
Conflict between drivers may result in violence ✓✓
(**Any ONE**) (1 x 2) (2)
- 3.4.5 Building of ring roads around the congested area ✓✓
Synchronised robots ✓✓
One way streets ✓✓
Subsidise public transport so that more people are encouraged to use it ✓✓
Designated lanes for busses and other public transport services to encourage faster travelling ✓✓
Use of flexitime for businesses to encourage different start and closing times to regulate the in- and outflow of traffic in the CBD ✓✓
Encourage lift clubs ✓✓
Park and ride schemes ✓✓
(**Any FOUR**) (4 x 2) (8)
- 3.5 3.5.1 (a) 2014 ✓ (1 x 1) (1)
- (b) Construction ✓ (1 x 1) (1)
- 3.5.2 (a) Decrease ✓ (1 x 1) (1)
- (b) 1,8% ✓ (1 x 1) (1)
- (c) Negative growth rate because both the primary and secondary sectors experienced a huge (14%) negative growth rate ✓✓
compared to the 1,1% positive growth rate of the tertiary sector ✓✓ (2 x 2) (4)

- 3.5.3 There might have been more imports than exports ✓✓
Exports decreased because of decrease in primary and secondary production ✓✓
(Any ONE) (1 x 2) (2)
- 3.5.4 Food prices will increase and will affect the poorest the most ✓✓
Increased unemployment because of job losses directly linked to agriculture ✓✓ (2 x 2) (4)
- 3.6 3.6.1 Rooibos tea ✓ (1 x 1) (1)
- 3.6.2 (a) Koeberg nuclear power plant (1 x 1) (1)
- (b) Cheaper electricity is available if the industry is stationed near Koeberg ✓✓
Decreases production costs of goods ✓✓
Koeberg's nuclear energy provides alternative energy as coal generated energy is expensive ✓✓
(Any ONE) (1 x 2) (2)
- 3.6.3 The cold Benguela current is causing upwelling, bringing nutrients to the water surface ✓✓
Increases phytoplankton and zooplankton which attracts larger fish ✓✓
Fishing flourishes because of this upwelling ✓✓
Huge shoals pass along the Cape coast ✓✓
(Any TWO) (2 x 2) (4)
- 3.6.4 There is a lack or shortage of minerals ✓✓
The region is very far from the power stations of Mpumalanga, making electricity very expensive despite Koeberg being in the region ✓✓
Initial slow development caused lack of job opportunities for the fast growing population ✓✓
High transport costs and the large distance to the Gauteng market places disadvantages the SW Cape compared to the other industrial regions ✓✓
The availability of fresh water can become a problem in the future ✓✓
The region has not attracted new industries because salaries are generally lower, and the buying power of the growing population is reduced ✓✓
Large, flat industrial sites are limited close to Cape Town, and therefore land is expensive ✓✓
Many of the sites set aside for industrial use have been taken over by informal settlements ✓✓
(Any FOUR) (4 x 2) (8)

[75]

QUESTION 4

- 4.1 4.1.1 F (Specialisation) ✓
- 4.1.2 K (Rural depopulation) ✓
- 4.1.3 J (Rural-urban migration) ✓
- 4.1.4 E (Mechanisation) ✓
- 4.1.5 G (Market orientated) ✓
- 4.1.6 H (Push factors) ✓
- 4.1.7 A (Fragmentation) ✓
- 4.1.8 C (Consolidation) ✓ (8 x 1) (8)
- 4.2 4.2.1 A ✓
- 4.2.2 B ✓
- 4.2.3 A ✓
- 4.2.4 A ✓
- 4.2.5 B ✓
- 4.2.6 B ✓
- 4.2.7 A ✓ (7 x 1) (7)
- 4.3 4.3.1 The process of compensating people for the land they lost due to forced removals ✓
(**Concept**) (1 x 1) (1)
- 4.3.2 To redress the injustices of apartheid ✓
For national reconciliation and stability ✓
To promote economic growth ✓
To alleviate poverty ✓
(**Any TWO**) (2 x 1) (2)
- 4.3.3 Beneficiaries have been neglected by the government ✓
The people lack support to start ploughing ✓
The people do not have the finances ✓ (3 x 1) (3)
- 4.3.4 People were given land simply to redress the injustices of past policies, but no support to generate income and make an adequate and meaningful living ✓✓ (1 x 2) (2)

- 4.3.5 Provide financial assistance to make sure that farmers can buy the basic equipment ✓✓
 Have workshops and training services available to make sure that the skills in farming and business management is on par ✓✓
 Help the farmers understand how the labour policies should be implemented ✓✓
 The development of local community forums so that the community can discuss how land should be developed and maintained ✓✓
 Provision of proper infrastructure like roads, electricity, computer literacy etc. ✓✓
 Government/NGO support ✓✓
(Any FOUR) (4 x 2) (8)
- 4.4 4.4.1 Rural-urban fringe ✓ (1 x 1) (1)
- 4.4.2 Area in the photo has mixed functions of rural and urban ✓ (1 x 1) (1)
- 4.4.3 Land is cheaper ✓
 There is more space for further expansion ✓
 Factory will be near to raw materials ✓
 Close to labour force ✓
 Close to transport networks ✓
(Any TWO) (2 x 1) (2)
- 4.4.4 The market is nearby so transport costs of products will decrease ✓✓
 The farmer has the advantages of the urban services, without paying for it ✓✓
 Demand/competition for land increases the land value ✓✓
(Any TWO) (2 x 2) (4)
- 4.4.5 Rural areas and life will be destroyed and could result in a decrease in food production ✓✓
 Biodiversity and aesthetic appeal will be destroyed ✓✓
 The balance of climatic conditions may be destroyed ✓✓
 Informal settlements may develop, which can increase the social and economic problems in the area ✓✓
 To prevent neighbouring towns from merging into one another ✓✓
 To preserve the special character of historic rural life ✓✓
(Any THREE) (3 x 2) (6)
- 4.5 4.5.1 When raw materials are being transformed into finished goods on a large scale/Add value to an article ✓
(Concept) (1 x 1) (1)
- 4.5.2 Secondary sector ✓ (1 x 1) (1)
- 4.5.3 Employment creation ✓
 Economic empowerment ✓
(Any ONE) (1 x 1) (1)

- 4.5.4 Upgrading of skills and knowledge in the production of manufactured goods ✓✓
 More beneficiation of raw materials improving the quality of manufactured goods ✓✓
 Foreign exchange can be earned ✓✓
 Creation of higher paid employment opportunities ✓✓
(Any TWO) (2 x 2) (4)
- 4.5.5 **Labour supply**
 South Africa consists of a very large unschooled labour force, with very few entrepreneurs ✓✓
 Production per worker in South Africa is very low ✓✓
 Strikes and stay away actions for higher wages and salaries hinders production ✓✓
International competition
 South Africa finds it very difficult to compete against countries like China, which produces low cost products ✓✓
 South Africa in some instances has had to implement trade restrictions in order to protect local markets, which hinders trade relationships ✓✓
(Any FOUR)
- [LEARNER MUST MENTION AT LEAST ONE FACT FROM LABOUR SUPPLY OR INTERNATIONAL COMPETITION.]** (4 x 2) (8)
- 4.6 4.6.1 It is an integrated network of infrastructure within a geographical area designated to stimulate economic development and growth ✓
(Concept) (1 x 1) (1)
- 4.6.2 Swaziland ✓ (1 x 1) (1)
- 4.6.3 Maputo is the nearest export harbour to Johannesburg ✓
 To strengthen relationships between South Africa and Mozambique ✓
(Any ONE) (1 x 1) (1)
- 4.6.4 The upgrading of infrastructure made it easier to visit major tourist destinations along the corridor ✓✓ (1 x 2) (2)
- 4.6.5 To rehabilitate the core infrastructure along the corridor ✓✓
 To maximise investment with the corridor area ✓✓
 To ensure development in previously disadvantaged communities ✓✓
 To promote sustainable job creation for people living in underdeveloped areas along the corridor ✓✓
[Any THREE] (3 x 2) (6)

- 4.6.6 A large bulk of the coal mined in Mpumalanga is exported to the Maputo harbour ✓✓
The corridor passes through vast primary and industrial production areas ✓✓
Mpumalanga has many international tourist destinations through which the corridor passes ✓✓
The largest national conservation area, the National Kruger Park can also be found along the corridor ✓✓

(Any TWO)

(2 x 2)

(4)

[75]

GRAND TOTAL: 225