



education

Department:
Education
PROVINCE OF KWAZULU-NATAL

GEOGRAPHY P1

MARKING GUIDELINE

COMMON TEST

JUNE 2020

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

MARKS: 225

This marking guideline consists of 15 pages.

SECTION A: CLIMATE AND WEATHER AND GEOMORPHOLOGY**QUESTION 1****PRESSURE CELLS INFLUENCING SOUTH AFRICA'S CLIMATE**

1.1

1.1.1 B/South Atlantic Anticyclone ✓

1.1.2 A/subsiding; surface divergent ✓

1.1.3 C/winter ✓

1.1.4 A/dry ✓

1.1.5 B/warm, moist ✓

1.1.6 D/berg winds ✓

1.1.7 B/snow falls ✓

(7 x 1) (7)

VALLEY CLIMATES

1.2

1.2.1 Katabatic ✓

1.2.2 Gravitational force ✓

1.2.3 Night ✓

1.2.4 Mid-slope (B) ✓

1.2.5 Fog ✓

1.2.6 Inversion ✓

1.2.7 Frost Pocket ✓

1.2.8 Slope E ✓

(8 x 1) (8)

MID LATITUDE CYCLONE

1.3

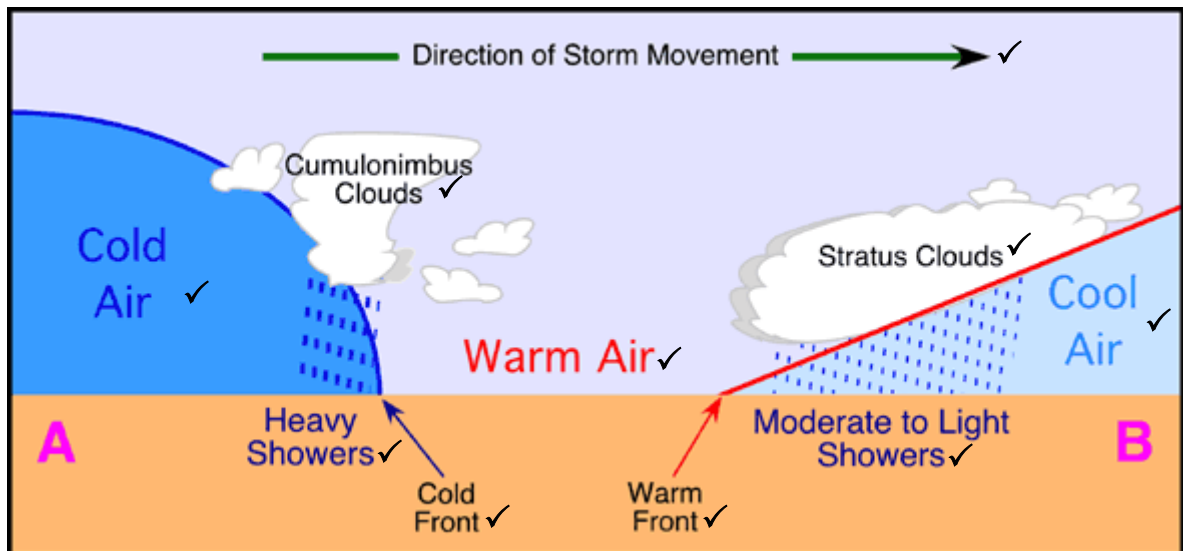
1.3.1 A low pressure system associated with fronts ✓
[Concept] (1 x 1) (1)

1.3.2 Cold fronts bring cold temperatures which causes COVID-19 to spread faster ✓✓ (1 x 2) (2)

1.3.3 Can help predict the path of the cold front. ✓✓
Can show the intensity of a cyclone. ✓✓
Can indicate if other mid-latitude cyclones are approaching or developing. ✓✓ (1 x 2) (2)

1.3.4 They are steered/driven by the westerly wind ✓✓ (1 x 2) (2)

1.3.5



(Any Three labels of: clouds, fronts, air mass, direction of movement, rainfall and diagram) (4 x 1) (4)

1.3.6 People can stay indoors to prevent endangering their lives ✓✓
Ensure that you are well stocked with food and other supplies ✓✓
Avoid travelling during cold fronts ✓✓
Keep updated with the latest weather forecasts ✓✓
[Any TWO] (2 x 2) (4)

URBAN HEAT ISLAND

1.4

- 1.4.1 A pocket of warm air above the city surrounded by cooler air of the surrounding rural area✓
[Concept] (1 x 1) (1)

- 1.4.2 Tall buildings✓
High building density✓ (2 x 1) (2)

- 1.4.3 Greater convection due to higher temperatures ✓✓
More condensation nuclei due to more pollution ✓✓
Greater convection results in large scale condensation ✓✓
Greater instability results in higher rainfall ✓✓
[Any TWO] (2 x 2) (4)

- 1.4.4 **Reduction in intensity of urban heat island effect**

 Roof gardens increase green spaces in the city✓✓
 Reduces carbon dioxide that absorbs heat in the city✓✓
 Increases evapo-transpiration which has a cooling effect✓✓
 Prevents the roof from absorbing and retaining heat in the city✓✓
 Slows down the development of an urban heat island✓✓

Promoting more sustainable urban environment

 Increases supply of fresh air (oxygen) ✓✓
 Beautify the area/Increases aesthetic appeal✓✓
 Supplies healthy food to city dwellers✓✓
 Reduces the demand for air conditioning/artificial cooling✓✓
 Reduces energy bills ✓✓ (4 x 2) (8)
 [Any FOUR. MUST refer to both aspects]

STREAM PATTERNS

1.5

- 1.5.1 The arrangement of streams within a drainage basin✓
[Concept] (1 x 1) (1)

- 1.5.2 (a) A – dendritic ✓ (1 x 1) (1)
B – rectangular✓ (1 x 1) (1)

- (b) A – resembles branches of a tree✓
tributaries join at small/acute angles✓ (1 x 1) (1)
B – main stream has bends of 90° angles✓
tributaries join main stream at 90° angles✓ (1 x 1) (1)
[Any ONE reason for both **A** and **B**]

- 1.5.3 A – uniformly resistant to erosion ✓✓ (1 x 2) (2)
 B – contains many cracks and joints ✓✓ (1 x 2) (2)
- 1.5.4 Main stream follows in the cracks and joints as this is the part of less resistance. ✓✓
 Cracks join at 90° angles and main stream will follow the 90° bends. ✓✓
 Tributaries flowing in cracks will meet main stream at 90° angle joints. ✓✓ (2 x 2) (4)
 [Any TWO]
- 1.5.5 Streams equally distributed throughout the drainage basin. ✓✓
 Water equally accessible throughout the drainage basin. ✓✓ (1 x 2) (2)
 [Any ONE]

RIVER CAPTURE

1.6

- 1.6.1 When the more energetic river robs/steals the water of the less energetic river.(concept) ✓ (1 x 1) (1)
- 1.6.2 (a) B ✓ (1 x 1) (1)
 (b) Water from river **A** has been diverted into river **B**. ✓✓ (1 x 1) (1)
- 1.6.3 Once river capture has occurred very little water will pass into river **D** ✓✓
 It becomes a misfit stream ✓✓
 The carrying capacity of the river also decreases in volume and velocity ✓✓
 Deposition of the river load takes place in the wind gap ✓✓ (2 x 2) (4)
 [Any TWO]

1.6.4 **RIVER C**

- The volume of water increases ✓✓
 The drainage basin increases in size ✓✓
 Rejuvenation occurs and the river renews its erosion ✓✓
 Flooding could be an issue ✓✓

MISFIT STREAM (D)

- River valley larger than the river that flows in it ✓✓
 No possible flooding due to decreased flow ✓✓
 River might still be fed by underground sources but will flow at a much lower level ✓✓
 Deposition will be the dominant process ✓✓

(Any FOUR, **MUST** refer to both river **C** and **D**) (4 x 2) (8)

[75]

QUESTION 2**SECTION B: CLIMATE AND WEATHER AND GEOMORPHOLOGY.****INVERSION LAYER**

2.1

2.1.1 B ✓

2.1.2 inversion ✓

2.1.3 Kalahari ✓

2.1.4 warm and moist ✓

2.1.5 escarpment ✓

2.1.6 floods ✓

2.1.7 thermal low ✓

2.1.8 orographic ✓

(8 x 1) (8)

DRAINAGE BASIN

2.2

2.2.1 run-off ✓

2.2.2 watershed ✓

2.2.3 water table ✓

2.2.4 source ✓

2.2.5 interfluvium ✓

2.2.6 mouth ✓

2.2.7 non-perennial ✓

(7 x 1) (7)

TROPICAL CYCLONE

2.3

- 2.3.1 Tropical cyclone, an intense circular storm that originates over warm tropical oceans and is characterized by low atmospheric pressure, high winds, and heavy rain. ✓
[Concept] (1 x 1) (1)
- 2.3.2 8 ✓ (1 x 1) (1)
- 2.3.3 The highest classification in the scale, Category 5, consists of storms with sustained winds over 250 km/per hour ✓ (1 x 1) (1)
- 2.3.4 Presence of eye ✓ (1 x 1) (1)
- 2.3.5 SE/South East ✓ (1 x 1) (1)
- 2.3.6 Moved southwards to cooler ocean ✓ ✓ (1 x 2) (2)
- 2.3.7 Preparation and proactive investments in resilience or response. ✓ ✓
Close collaboration with international development partners. ✓ ✓
Embrace of the key pillars of sustainable development: environmental health, social and human health, and economic growth ✓ ✓
Working closely with the World Health Organization, to build its domestic capacity to identify, trace and contain potential cases and to procure additional ventilators, medical masks and other critical items ✓ ✓
Gradually tightening, restrictions on travellers who spend time in existing hotspots ✓ ✓
Deploying contact tracing teams to track and monitor all possible cases ✓ ✓
Grounding commercial international flights and sealing its borders ✓ ✓
Government locked down, where cases are confirmed ✓ ✓
Ban social gatherings and implementing a nationwide curfew ✓ ✓
Government to launch a “Build Back Better” program to rebuild more buildings so they could withstand comparable future storms ✓ ✓
Assistance received from the global community ✓ ✓
Governments to discuss a virus-free travel bubble ✓ ✓
Bilateral and multilateral development partners (4 x 2) (8)

MOISTURE FRONT

2.4

- 2.4.1 Zone where warm, moist north-easterlies meet cold, dry south-westerlies over the interior✓
[Concept] (1 x 1) (1)
- 2.4.2 South Indian/Mauritius High Pressure Cell✓ (1 x 1) (1)
- 2.4.3 Summer✓ (1 x 1) (1)
- 2.4.4 (a) X – dry✓
Y – moist✓ (2 x 1) (2)
- (b) X – Air flowing inland from the cold Atlantic Ocean has low water vapour carrying capacity✓✓
Y – Air flowing in from the warm Indian Ocean has high water vapour carrying capacity✓✓ (2 x 2) (4)
- 2.4.5 Warm, moist light air east of the moisture front✓✓
Cold, dry heavy air to the west of the moisture front ridges in under the warm moist air✓✓
Upliftment and large scale cooling east of the moisture front✓✓
Cumulonimbus clouds and thundershowers thus develop east of the moisture front✓✓
[Any TWO] (2 x 2) (4)
- 2.4.6 Flooding of crops due to heavy downpours ✓✓
Crops set alight by possible lightning ✓✓
Total destruction of farm lands ✓✓
Loss of income for farmers ✓✓
[Any ONE] (1 x 2) (2)

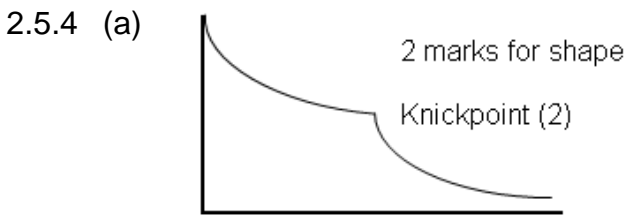
RIVER REJUVENATION

2.5

2.5.1 When a river gains energy which enables it to renew its capacity to erode downwards✓
[Concept] (1 x 1) (1)

2.5.2 Knickpoint✓
Valley in a valley✓
River terraces✓
[Any TWO] (2 x 1) (2)

2.5.3 Drop in sea level ✓✓
Tectonic uplift of land ✓✓
River capture ✓✓
Increase in rainfall ✓✓
[Any ONE] (1 x 2) (2)



(2 x 2) (4)

(b) Ungraded✓✓ (1 x 2) (2)

(c) Profile is multi-concave✓✓
Shows a knickpoint ✓✓
[Any ONE] (1 x 2) (2)

2.5.5 Meanders will become entrenched✓✓
Waterfall will develop at the knickpoint✓✓
Gorge will develop✓✓
New river valley will develop in the existing river valley✓✓
New set of terraces will develop✓✓
[Any ONE] (1 x 2) (2)

RURAL SETTLEMENTS SHAPES

2.6

2.6.1 Refers to sustainable conservation of the river and its drainage basin ✓
[Concept] (1 x 1) (1)

2.6.2 Temporary base level ✓ (1 x 1) (1)

2.6.3 To alter the natural flows and hydrology of the Pongola River. ✓ (1 x 1) (1)

2.6.4 To assist in the growth of sugar cane, maize, and other cash crops. ✓✓
Made irrigation possible. ✓✓
To encourage the development of commercial farming in KwaZulu-Natal. ✓✓
To increase employment and job opportunities in Pongola. ✓✓
Decreases soil erosion and improves farming activities. ✓✓
Improves standard of living. ✓✓
Provides recreational opportunities for people. ✓✓
(Any TWO) (2 x 2) (4)

2.6.5 ENVIRONMENTAL:

Low water levels can negatively change the natural food web and/or biodiversity ✓✓

Low water levels can force flora and fauna to migrate ✓✓

Loss of natural or indigenous vegetation ✓✓

Shallower water increases the growth of algae and bacteria ✓✓

Low water levels can cause soil erosion ✓✓

Increased risk of flash floods ✓✓

SOCIO-ECONOMIC:

Increased level of algae can spread disease ✓✓

Low water levels result in less water availability for people ✓✓

Lack of water forces people to migrate ✓✓

Unsuccessful farms can result in job loss ✓✓

Low water levels decrease crop productivity ✓✓

Loss of profit for farmers. ✓✓

Price increase of food as crop production decreases ✓✓

[Learners must include both environmental and socio-economic impacts] (4 x 2) (8)

[75]

QUESTION 3

3.1

- 3.1.1 F / Situation ✓
- 3.1.2 C / Dry-point settlement ✓
- 3.1.3 B / Site ✓
- 3.1.4 A / Isolated farmstead ✓
- 3.1.5 E / Village ✓
- 3.1.6 I / Central Place ✓
- 3.1.7 C / Wet-point settlement ✓
- 3.1.8 G / Specialised settlement ✓

(8 x 1) (8)

3.2

- 3.2.1 urban growth ✓
- 3.2.2 high order goods ✓
- 3.2.3 sphere of influence ✓
- 3.2.4 convenience goods ✓
- 3.2.5 urban expansion ✓
- 3.2.6 threshold population ✓
- 3.2.7 range of goods ✓

(7 x 1) (7)

RURAL SETTLEMENT SHAPES

3.3

- 3.3.1 Refers to physical layout of a settlement✓ (1 x 1) (1)

- 3.3.2 (a) A – linear✓
B – round/circular✓ (2 x 1) (2)

- (b) A – along coastline/road✓
B – around centrally placed feature/park✓ (2 x 1) (2)

- 3.3.3 They are both clustered/nucleated✓✓ (1 x 2) (2)

- 3.3.4 Close to the coastline✓✓
On flat land✓✓
Close to fertile soil✓✓
Situated along a main road✓✓ (2 x 2) (4)
[Any TWO]

- 3.3.5 Equipment can be shared to reduce production costs✓✓
Sharing of ideas to improve yields and profits✓✓
Assistance during harvesting save on labour costs✓✓
Can pool when transporting goods to markets and save on transport costs. ✓✓ (2 x 2) (4)
[Any TWO]

LAND REFORM

3.4

- 3.4.1 Returning of land to or the compensation of rightful beneficiaries who lost their land when the they were removed from it✓ (1 x 1) (1)
[Concept]

- 3.4.2 Land redistribution✓ (1 x 1) (1)

- 3.4.3 Low income✓
Lack of employment security✓
Low standard of living✓
Lack of proper education✓
Lack of skills✓
Poor housing✓
Poor service delivery✓
Food insecurity✓ (1 x 1) (1)
[Any ONE]

- 3.4.4 They do not own the land✓✓
The want land security first ✓✓ (1 x 2) (2)
[Any ONE]
- 3.4.5 Land creates job opportunities✓✓
Land ensures food security through production process✓✓
Growing of crops have monetary advantages for the community✓✓
Small-scale farming will raise the status of the farmer and his family✓✓
Cultivation of the land will increase skills and farming knowledge✓✓ (1 x 2) (2)
[Any ONE]
- 3.4.6 Revising land reform policies✓✓
Remove gaps in current policies, which compromise effective implementation of land reform programmes✓✓
Consensus amongst political parties on the land reform debate✓✓
Measures to ensure redistributed land is used productively✓✓
Include local communities to establish needs through consultation✓✓
The establishment of forums so that communities can discuss how the land must be distributed and used✓✓
The government must kick start development on the land given to communities✓✓
Agricultural training and support to make farming land productive✓✓
Government funding for agriculture especially small-scale farming✓✓
More monitoring and reliable evaluation of farming activities on land that has been redistributed✓✓
Establishing educational centres in these settlements for up-skilling the communities✓✓
Training and development in modern farming methods/mentorship to new farmers✓✓
Incentives for previous commercial farmers to support and mentor the new farmers✓✓
Subsidise small-scale farming communities to encourage the buying and selling of their produce✓✓
Create market areas for trading✓✓
The government should ensure that the environmental capacity of the soil is sufficient to sustain communities✓✓ (4 x 2) (8)
[Any FOUR]

URBAN PROFILE AND STREET PATTERNS

3.5

- 3.5.1 (a) The side view of a city ✓
[Concept] (1 x 1) (1)
- (b) Tall buildings in the CBD getting lower towards the outskirts ✓ (1 x 1) (1)
- (c) Land value in the CBD is very high ✓
Developers can only afford small sections of land in the CBD ✓
More cost effective to build tall buildings close to one another in the CBD ✓
[Any ONE] (1 x 1) (1)
- 3.5.2 (a) Old style street pattern and CBD is the oldest part of the city ✓✓
Easier to subdivide and construct buildings ✓✓
[Any ONE] (1 x 2) (2)
- (b) Creates traffic congestion ✓✓
Time wasted when travelling on the roads ✓✓
Increased consumption of fuel ✓✓
Increases pollution and urban heat island effect in CBD ✓✓
Many accidents may occur ✓✓
Creates opportunities for hijackings ✓✓
Increases stress levels of drivers ✓✓
[Any ONE] (1 x 2) (2)
- 3.5.3 Street pattern becomes more irregular ✓✓ [MUST include for a mark]
New street pattern develops as the needs of road users change ✓✓
City planners are constantly developing new street patterns that are less monotonous ✓✓
Development in areas with steep slopes requires street pattern that avoid steep roads ✓✓
People living towards the outskirts travel far to the CBD and cannot afford traffic congestion close to where they live ✓✓
Fast flowing traffic reduces pollutants that are released into the atmosphere creating a cleaner environment towards the outskirts ✓✓
Stress levels of road users are reduced when traffic is fast flowing ✓✓
Helps to reduce fuel consumption and costs when traffic is fast flowing. (4 x 2) (8)
- [Any FOUR. ONE mark for changing pattern; if not included candidate cannot be awarded all marks]

URBAN ISSUES

3.6

3.6.1 Refers to the process whereby the percentage of people increase in urban areas. ✓ (1 x 1) (1)

3.6.2 Urbanisation is destroying nature. ✓✓
There is a lack of concern for the environment. ✓✓
[Any ONE] (1 x 2) (2)

3.6.3 Pollution (Land, Air and Water Pollution) from motor vehicles and urban activities. ✓✓
Removal of vegetation for urban expansion/activities. ✓✓
Traffic Congestion due to increased number of vehicles on the road. ✓✓
Overcrowding due to many people being attracted to urban areas. ✓✓
Heat island effect caused by heat production caused by urban activities. ✓✓
[Any TWO] (2 x 2) (4)

3.6.4 Respiratory disorders. ✓✓
Mental health issues like, stress. ✓✓
Heat fatigue/Dehydration. ✓✓
Lack of clean air. ✓✓
[Any TWO] (2 x 2) (4)

3.6.5 Develop OBDs. ✓✓
Encourage commercial and industrial decentralisation by providing incentives to businesses. ✓✓
Develop outlying areas. ✓✓
Introduce strict legislations in CBD. ✓✓
[Any TWO] (2 x 2) (4)

[75]**TOTAL MARKS: 225**