Province of the
EASTERN CAPE
EDUCATION

# NATIONAL SENIOR CERTIFICATE

## GRADE 12

## JUNE 2023

# GEOGRAPHY MARKING GUIDELINE

**MARKS: 150**

This marking guideline consists of 8 pages.

## QUESTION 1: WEATHER AND CLIMATOLOGY

1.1 1.1.1 Z (1)

1.1.2 Y (1)

1.1.3 Y (1)

1.1.4 Z (1)

1.1.5 Y (1) (5 x 1) (5)

1.2 1.2.1 B (1)

1.2.2 D (1)

1.2.3 C (1)

1.2.4 A (1)

1.2.5 D (1) (5 x 1) (5)

1.3 1.3.1 Northern (1) (1 x 1) (1)

1.3.2 **A** – Mature (1) (1 x 1) (1)

1.3.3 A (1) (1 x 1) (1)

1.3.4 Fully developed eye (1) (1 x 2) (2)

1.3.5 (a) **Eye** – descending air dominates (1)
**Eye wall** – Rising air dominates (1) (2 x 1) (2)

(b) ***Eye – Descending air***
Clear, cloudless skies due to descending air causing moisture to evaporate (2)
Little to no wind because of weak pressure gradient (2)
Higher temperatures because descending air compresses and heats up (2)
No rainfall due to lack of moisture (2)
***Eye wall – Rising air***
Strong rising air cause cumulonimbus clouds to develop (2)
Pressure gradient is strong and hurricane strength winds prevail (2)
Leading left quadrant associated with extremely strong winds due to a combination of rotation and forward movement of the system (2)
Latent heat drives the system (2)
Heavy rainfall due to evaporation over warm waters (2)
[**Any FOUR – BOTH THE EYE AND EYE WALL MUST BE MENTIONED**] (4 x 2) (8)

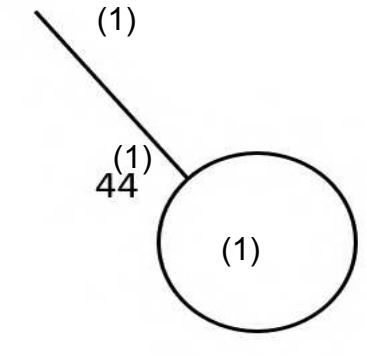
1.4 1.4.1 Peak temperatures of 43,9 °C (1)
Berg wind conditions (1) (2 x 1) (2)

1.4.2 It heats up adiabatically. (2) (1 x 2) (2)

1.4.3 Between 35 – 40 min / Less than an hour (2)
[**Any ONE**] (1 x 2) (2)

1.4.4 Anticlockwise circulation of air from the Kalahari High descends down the escarpment. (2) (1 x 2) (2)

1.4.5




(3 x 1) (3)

1.4.6 Moisture will be evaporated from the soil and vegetation (2)
Increases the danger of veldt fires (2)
Decreased humidity (2)
[**Any TWO**] (2 x 2) (4)
**[40]**

## QUESTION 2: GEOMORPHOLOGY

2.1 2.1.1 Z (1)

2.1.2 Y (1)

2.1.3 Z (1)

2.1.4 Y (1)

2.1.5 Y (1) (5 x 1) (5)

2.2 2.2.1 A (1)

2.2.2 D (1)

2.2.3 B (1)

2.2.4 C (1)

2.2.5 B (1) (5 x 1) (5)

2.3 2.3.1 Longitudinal (1)
Cross/Transverse profile (1) (2 x 1) (2)

2.3.2 **Profile A** – V-shaped (1)
**Profile B** – U-shaped (1) (2 x 1) (2)

2.3.3 At profile A erosion is mainly vertical/downward (2)
At profile B the erosion is mainly lateral/sideways (2) (2 x 2) (4)

2.3.4 (a) Ungraded (1) (1 x 1) (1)

(b) The lake is temporarily preventing further erosion; however erosion will eventually take place over time (2) (1 x 2) (2)

(c) **<u>At X:</u>**
Erosion dominates due to various knickpoints (2)
The rivers are under graded therefore more erosion (2)
[**Any ONE**] (1 x 2) (2)

**<u>At Y:</u>**
The lower course is characterised by deposition, hence there is a balance between erosion and deposition (2)
The river is over graded because deposition dominates (2)
[**Any ONE**] (1 x 2) (2)

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2.4 2.4.1 When a more energetic stream/river captures the head waters of a less energetic stream/river (2)
**[CONCEPT]** (1 x 2) (2)

2.4.2 (a) A (1)

(b) D (1) (2 x 1) (2)

2.4.3 Knickpoint waterfall (1) (1 x 1) (1)

2.4.4 Gorges are tourist attractions (2)
Transport routes through gorges reduces transport costs (2)
**[Any ONE]** (1 x 2) (2)

2.4.5 The river at A is stronger due to steeper gradient, higher volume of water and flows over softer rock (2)
River is lower on the watershed (2)
Therefore, river A has more energy than river at D (2)
River A is lengthening its course through headward erosion (2)
Headward erosion causes the river to cut through the watershed (2)
River A captures the waters of river B
This capture takes place at the elbow of capture (2)
[**Any FOUR]** (4 x 2) (8)
**[40]**

**QUESTION 3: SETTLEMENTS**

3.1 3.1.1 counter urbanisation (1)

3.1.2 urban growth (1)

3.1.3 level (1)

3.1.4 Junction (1)

3.1.5 B (1) (5 x 1) (5)

3.2 3.2.1 Z (1)

3.2.2 Y (1)

3.2.3 Y (1)

3.2.4 Z (1)

3.2.5 Z (1) (5 x 1) (5)

3.3 3.3.1 Vacant land bought by the state and making it available for previously disadvantaged people (2)
**[CONCEPT]** (1 x 2) (2)

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3.3.2 Land restitution (1)
Land tenure (1)
**[Any ONE]** (1 x 1) (1)

3.3.3 Enhance private sector participation (1)
Enabling policies (1)
Monitoring mechanisms by the state (1)
**[Any TWO]** (2 x 1) (2)

3.3.4 To improve agricultural growth (2)
To make sure farmers have the facilities to sustain farming (2)
To make sure farmers are successful and contribute to economic growth (2)
To provide knowledge and skills assistance (2)
**[Any ONE]** (1 x 2) (2)

3.3.5 Apartheid policies of the past prevented non-whites to own land in South Africa (2)
Non-whites were disposed of their land (2)
Corruption and ineffective handling of land reform processes (2)
Land reform programmes provided little assistance and benefit for the previously disadvantaged (2)
Service delivery by local municipalities is poor (2)
**[Any FOUR]** (4 x 2) (8)

3.4 3.4.1 CBD (1) (1 x 1) (1)

3.4.2 Most accessible (1)
Highest buildings (1)
Usually grid-iron street pattern (1)
Traffic congestion (1)
Highest land values (1)
High pollution levels (accept examples) (1)
**[Any TWO]** (2 x 1) (2)

3.4.3 Provides an alternative route to bypass the CBD (2) (1 x 2) (2)

3.4.4 Buildings are dilapidated and in poor condition (2)
Graffiti on walls (2)
**[Any ONE]** (1 x 2) (2)

3.4.5 The buildings are dilapidated and in poor condition, yet the land values are high (2) (1 x 2) (2)

3.4.6 On the outskirts/rural-urban fringe because the land values are low (2)
Abundance of space available for future expansion (2)
Near the coal mine, which reduces transport costs (2)
The nearby river provides water for cooling purposes (2)
Dominant easterly winds are blowing the smoke/polluted air away from most of the buildings/households (2)
**[Any THREE]** (3 x 2) (6)

**[40]**

## QUESTION 4: CALCULATIONS AND MAP SKILLS

| | | | | | |
|---|---|---|---|---|---|
| 4.1 | 4.1.1 | B | | (1 x 1) | (1) |
| | 4.1.2 | (a) | 187° (2) | (1 x 2) | (2) |
| | | (b) | 187°00'<br>+ (1) 24°36'<br>211°36' WTN (1) | (2 x 1) | (2) |
| | | (c) | Magnetic bearing includes the annual change (1)<br>Magnetic bearing includes the magnetic declination, which considers the movement of tectonic plates (1)<br>**[Any ONE]** | (1 x 1) | (1) |
| | 4.1.3 | (a) | 1 502 – 1 240 = 262 m (1) | (1 x 1) | (1) |
| | | (b) | 6,7(1) cm x 100 = 670 m (1) | (2 x 1) | (2) |
| | | (c) | Contour lines are close to one another (1) | (1 x 1) | (1) |
| 4.2 | 4.2.1 | C (1) | | (1 x 1) | (1) |
| | 4.2.2 | D (1) | | (1 x 1) | (1) |
| | 4.2.3 | A (1) | | (1 x 1) | (1) |
| | 4.2.4 | (a) | Aspect (1) | (1 x 1) | (1) |
| | | (b) | Receives direct rays of the sun / it is situated in the warm thermal belt (2)<br>Away from the cold valley bottom (2)<br>Area is protected against strong winds from the crest (2)<br>**[Any ONE]** | (1 x 2) | (2) |
| | 4.2.5 | (a) | Upper course (1) | (1 x 1) | (1) |
| | | (b) | V-shaped valleys (1)<br>Contour lines close to one another/Steep slopes (1)<br>Source of the river is evident (1)<br>**[Any ONE]** | (1 x 1) | (1) |

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| | | | | |
|---|---|---|---|---|
| 4.2.6 | (a) | Irregular (1)) | (1 x 1) | (1) |
| | (b) | Less traffic congestion (1)<br>Not so monotonous (1)<br>**[Any ONE]** | (1 x 1) | (1) |
| | (c) | The area is reasonably flat / Slopes are gentle (2) | (1 x 2) | (2) |
| 4.3.1 | | Orthophoto map (1) | (1 x 1) | (1) |
| 4.3.2 | | Real-life features can be observed (1)<br>First-hand information (1)<br>Very little manipulation (1)<br>**[Any ONE]** | (1 x 1) | (1) |
| 4.3.3 | (a) | Erosion (1) | (1 x 1) | (1) |
| | (b) | Polygon (1) | (1 x 1) | (1) |
| | (c) | The exact location can be identified (2)<br>The area being influenced can be determined (2)<br>**[Any ONE]** | (1 x 2) | (2) |
| | (d) | The area would be restricted, which will give it time to repair (2) | (1 x 2) | (2) |
| | | | | **[30]** |
| | | | **TOTAL:** | **150** |

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