Province of the
EASTERN CAPE
EDUCATION

NATIONAL
SENIOR CERTIFICATE

SUBJECT	:	GEOGRAPHY
GRADE	:	11
TERM	:	2
TOTAL	:	150 MARKS
DATE OF IMPLEMENTATION	:	JUNE 2025
TERM WEIGHTING	:	60%
SBA WEIGHTING	:	20%

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MARKING GUIDELINE

THIS MARKING GUIDE CONSIST OF 8 PAGES INCLUDING COVER

QUESTION 1: CLIMATE AND WEATHER

1.1 Pressure cells

1.1.1 B
1.1.2 B
1.1.3 A
1.1.4 A
1.1.5 B
1.1.6 B
1.1.7 A (7 x 1) **[7]**

1.2 Synoptic weather map

1.2.1 C
1.2.2 B
1.2.3 C
1.2.4 A
1.2.5 D
1.2.6 C
1.2.7 D
1.2.8 C (8 x 1) **[8]**

1.3 Tri-cellular circulation

1.3.1 Low pressure (1) (1 x 1) (1)

1.3.2 Air is converging on the surface (2)
Rising air (2)
Air is diverging in the upper air (2) (2 x 2) (4)

1.3.3 **B** – Tropical Easterlies (trade winds) (1)
C – Westerlies winds (tropical westerlies) (1) (2 x 1) (2)

1.3.4 **Vertically:** Warm air rises at the equator due to intense solar heating, creating low pressure (2) (1 x 2) (2)

1.3.5 The westerlies blow between the sub-tropical HP and the Subpolar LP (2)
North westerly – winds in Southern Hemisphere (2)
Blow at a gale force speed (2)
Blow from warm to colder region and increase the temperature of the coastal areas (2)
With the migration of winds during winter (ITCZ), the western Cape is under the influence of the Sub polar LP and SW-winds bring rain to the area (2)
Cause the mid-latitude cyclone (frontal rain) to move over the Western Cape (2)
As the moist air meets the Cape Fold Mountains, it rises and cools, causing orographic rainfall (2)
[Any THREE] (3 x 2) (6)

[15]

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1.4 Föhn wind

1.4.1 Warm and dry winds that descends from the leeward slope of the mountain (2)
[CONCEPT] (1 x 2) (2)

1.4.2 Berg wind (1) (1 x 1) (1)

1.4.3 On the windward slope, warm moist air rises over the mountain range and cools down adiabatically (temperature decreases) (2)
As it cools, it reaches the dew point, condensation occurs, and clouds form, resulting in rainfall on the windward side (2) (2 x 2) (4)

1.4.4 Wind **A** is warm and dry (2)
Air is descending at DALR/ as air descends temperature rises with 1°C for every 100m that the air descending (2)
Wind **B** becomes **warmer** as it descends due to adiabatic heating (compression of air) (2).
It also becomes **dry**, since most moisture was lost on the windward side during precipitation (2) (2 x 2) (4)
[Any TWO]

1.4.5 People will experience warm dry weather/ no rain (2)
The leeward side experiences **dry** and **warm** weather due to the descending, heated air (2)
These conditions may lead to **clear skies** and **low humidity**, and in some cases, increased fire risk (2)
[Any TWO] (2 x 2) (4)
[15]

1.5 Desertification

1.5.1 The process where once fertile areas become arid (2) (1 x 2) (2)
[CONCEPT]

1.5.2 … to curb the Sahara Desert spread (1) (1 x 1) (1)

1.5.3 'The change in climate and weather patterns…'(1) (1 x 1) (1)

1.5.4 35°C – 10°C = 25°C (1 x 1) (1)

1.5.5 Overgrazing (1)
Over cultivation (1)
Deforestation (1)
Poor irrigation practice (1)
Subsistence farming (1)
[Any TWO] (2 x 1) (2)

1.5.6 It would restore millions of hectares of fertile lands (2)
Improve the livelihoods of people in area (2)
This would decrease food insecurity / famine in the Sahel (2)
There would be a reduction in land degradation (2)
It would help to reduce conflict in the area (2)
Reduce poverty by creating green jobs planting trees, farming.
There would be jobs created / multiplier effect (2)
It would reduce mass migration from countries in the Sahel to other parts of Africa (2)
It would reduce carbon dioxide and increase oxygen (2)
[Any FOUR] (4 x 2) (8)
[15]

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TOTAL QUESTION 1: 60

QUESTION 2: GEOMORPHOLOGY



2.1 Landscapes Features

2.1.1 G
2.1.2 H
2.1.3 B
2.1.4 C
2.1.5 E
2.1.6 D
2.1.7 A (7 x 1) (7)

2.2 Igneous Intrusions

2.2.1 B
2.2.2 F
2.2.3 H
2.2.4 D
2.2.5 A
2.2.6 E
2.2.7 G
2.2.8 C (8 x 1) [8]

2.3 Horizontal landforms

2.3.1 **A canyon** is a deep, narrow valley with steep sides, usually formed by the erosive action of a river cutting through rock over a long period. (2) (1 x 2) (2)

2.3.2 Dolerite (1) (1 x 1) (1)

2.3.3 Hard cap rock (1)
Flat and elevated above sea level (1)
Uniform in their resistance to erosion resulting in flat plateau (1)
Often has steep sides or cliffs (1)
[Any TWO] (2 x 1) (2)

2.3.4 Process fertile soils rich in iron (2)
Tourist attraction for economical gain (2)
Plateaus can be used for farming, livestock grazing, mining (2) (1 x 2) (2)
Recreational activities (zip-line, paragliding accept examples) (2)
[Any ONE]

2.3.5 **A mesa** has a width that is greater than its height (2)
A butte has a height that is greater than it width (2) (2 x 2) (4)

2.3.6 A plateau is first weathered and eroded over time, forming a mesa (2)
Continued erosion around the edges of the mesa reduces its size, eventually forming a narrow, steep-sided butte with a cap rock that resists erosion (2)
Cap rock is reduced from the sides (2)
Back-wasting occurs / parallel retreat of slopes (2)
Undercutting of softer shale under dolerite (2)
Slope erodes parallel to original slope (2)
Slope retains the height (2)
[ANY TWO] (2 x 2) (4)
[15]

2.4 Slope Elements

2.4.1 **A**: Crest/ waxing slope (1) (1 x 1) (1)
B: Cliff/ free face (1) (1 x 1) (1)

2.4.2 It experiences soil creep (2)
The soil/ weathered materials moves downhill under gravity (2)
The soils tend to be washed down the slope by wind and water erosion (2)
[ANY ONE] (1 x 2) (2)

2.4.3 Slope B is a cliff or scarp, formed by weathering and the collapse of material, resulting in a steep vertical or near-vertical angle (2) (1 x 2) (2)

2.4.4 a) Talus/ Scree/ debris (1) (1 x 1) (1)

b) Slope C forms from weathered rock and debris falling from the cliff above and accumulating at the base of the cliff through gravity (2) (1 x 2) (2)

2.4.5 The slope element D (pediment) would increase in length (2)
Slope retreat would cause element D (pediment or lower slope) to extend upslope, making it broader and more gently sloping over time (2) (1 x 2) (2)
[Any ONE]

2.4.6 It is gentle so water infiltrates instead of running off (2)
Soil accumulates here due to downslope movement, providing nutrients and stability for plant growth (fertile soil) (2)
It has more soil accumulated from erosion of other slopes (2)
The gentle gradient enables people to use it for farming (2)
Down the slope where water is available for irrigation (2)
[ANY TWO] (2 x 2) (4)

2.5 **Igneous intrusion and extrusive**

2.5.1 Batholith (1) (1 x 1) (1)
Igneous rock (1)

2.5.2 Granite dome (1) (1 x 1) (1)

2.5.3 a) Intrusive (1) (1 x 1) (1)

b) Intrusive rocks form from molten material (magma) that flows and solidifies underground, where magma cools slowly. Eventfully, the overlying rocks are removed, exposing the granite (2) (1 x 2) (2)

2.5.4 Usually round and smooth when exposed (2)
Consist of core stones (2)
Light in colour (2)
Exposed domes are part of much larger and deeper lying Batholith (2)
[Any ONE] (1 x 2) (2)

2.5.5 Development of tors begins when igneous rock cools down underneath the earth's surface (2)
Crack and joints form when granite cools down (2)
Groundwater seeps through the cracks and chemical weathering takes place during humid conditions (2)
Groundwater also dissolves the mineral in the granite (chemical weathering) (2)
The upper layer is removed (glaciation period), and the core stones of the earth's surface is revealed (2)
Mechanical weathering and erosion remove the surface material, leaving the core stones exposed (2)
Core stones remain on the surface of the earth (2)
[Any FOUR]

(4 x 2) (8)
[15]

TOTAL QUESTION 2: 60

SECTION B
QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

3.1 MAP SKILLS AND CALCULATIONS

3.1.1 D (1) (1 x 1) (1)

3.1.2 B (1) (1 x 1) (1)

3.1.3 532.2m (1) (1 x 1) (1)

3.1.4 532.2 m – 499 m = 33.2 m (2) (1 x 1) (1)

3.1.5 1.3 cm (1) x 500 m = 650 m (1) RANGE (600 m – 700 m) (2 x 1) (2)

3.1.6 Formula: Gradient = Difference in height / VI
Horizontal Distance / HE

33.2
650 (1) [Substitute Mark]

33.2 / 33.2 1
650 / 33.2 19.57 = 1 : 19,57 (1) (2 x 1) (2)

3.1.7 A gradient of **1:19.57** means that for every **1 unit** of vertical rise, the horizontal distance increases by **19.57 units** (2)/ The slope between the two points is gentle. (1 x 2) (2)

3.2 MAP INTERPRETATION

3.2.1 a) Created by humans (1) (1 x 1) (1)

b) Reservoir (1)
Buildings (1)
Sewage works (1)
Roads (1)
Track and hiking trail (1)
Benchmark (1)
Trig station (1)
Spot height (1)
Powerline (1)
[ANY ONE] (1 x 1) (1)

c) Reservoir store water (1)
Building for shelter (1)
Sewage works for water purification (1)
Roads for transportation (1)
Powerline for electricity (1)
Tracks and hiking trail used when hiking / helps one for finding a way around a place (1)
Trig station and spot height for indication of height (1)

Powerline for carrying electricity (1) (1 x 2) (2)

3.2.2 a) Yes (1) there is intervisibility (1) (1 x 1) (1)

b) There is no obscuring feature (2)
No high lying area/ mountain between the spot height (2)
[Any ONE] (1 x 2) (2)

3.2.3 B (1) (1 x 1) (1)

3.2.4 C (1) (1 x 1) (1)

3.2.5 a) Conical hill (1) (1 x 1) (1)

b) (Kgopolwe) Monument (1) (1 x 1) (1)

3.2.6 Blyde river Canyon / the Three Rondavels (1)
God's window (1)
Bourke's Luck Potholes and river cruises on the Oliphant's river (1)
Kruger National Park (1)
[Any ONE] (1 x 1) (1)

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3.3 GEOGRAPHIC INFORMATION SYSTEMS (GIS)

3.3.1 a) Collecting information of the earth without physically contact with the ground (2)
[CONCEPT} (1 x 2) (2)

b) Helicopter (1)
Airplanes (1)
Drones (1)
Satellite (1)
Balloons (1)
[Any TWO] (2 x 1) (2)

3.3.2 a) point (1) (1 x 1) (1)

b) Spatial (1) (1 x 1) (1)

c) B (1) (1 x 1) (1)

d) The image is more clear (1)
Many small pixels (1)
[Any ONE] (1 x 1) (1)
[8]

TOTAL SECTION B: [30]