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Province of the
EASTERN CAPE
EDUCATION

NATIONAL SENIOR CERTIFICATE

GRADE 10

NOVEMBER 2020

GEOGRAPHY P1
MARKING GUIDELINE
(EXEMPLAR)

MARKS: 150

This marking guideline consists of 8 pages.

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SECTION A: CLIMATE, WEATHER AND GEOMORPHOLOGY

QUESTION 1

1.1	1.1.1	A (drought)		
	1.1.2	A (convection)		
	1.1.3	D (greenhouse gases)		
	1.1.4	D (troposphere)		
	1.1.5	D (chlorofluorocarbons)		
	1.1.6	C (precipitation)		
	1.1.7	A (frost)		
	1.1.8	C (synoptic weather map)	(8 x 1)	(8)
1.2	1.2.1	D (Cumulonimbus cloud)		
	1.2.2	H (Oxygen)		
	1.2.3	F (Ozone)		
	1.2.4	A (Insolation)		
	1.2.5	B (Terrestrial radiation)		
	1.2.6	C (Tropopause)		
	1.2.7	E (Scattering)	(7 x 1)	(7)
1.3	1.3.1	Global warming is the increase in the average temperature of the earth's atmosphere. **(Concept)**	(1 x 1)	(1)
	1.3.2	Changing rain and snow patterns Changes in animal migration and life cycles Less snow and ice Higher temperatures and more heat waves Stronger storms More droughts and wildfires Thawing permafrost Damaged corals Rising sea levels Warmer ocean	(Any 2 x 1)	(2)
	1.3.3	Methane Carbon dioxide Nitrous oxide Ozone Chlorofluorocarbon	(Any 2 x 1)	(2)

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1.3.4 Power stations and factories burn fossil fuels
Deforestation
Livestock especially cattle
Aerosols release CFCs and harlocarbons into the atmosphere
Waste dumps release methane into the atmosphere
Increasing rice production causes the release more methane
(Any 2 x 2) (4)

1.3.5 Reduce the overall emissions of greenhouse gases
Use solar energy
Reduce the emission of methane
Promote sustainable forms of agriculture
Heavy fines
Reduce population numbers
Plant more trees to absorb
Use public transport
Public education (Any 3 x 2) (6)

1.4 1.4.1 Summer (1 x 1) (1)

1.4.2 Gauteng (1 x 1) (1)

1.4.3 (a) Cumulonimbus (1 x 1) (1)

(b) Lightning
Hailstones
Heavy rainfall
Thunderstorms
Cloudy (Any 2 x 1) (2)

1.4.4 Thunderstorm is accompanied by rainfall
There will be enough water for crops and animals
There will be enough water for domestic use (Any 2 x 1) (2)

1.4.5 Heavy rainfalls can cause flash floods which may lead to the destruction of infrastructure and houses
The impact thunderstorms have on people can be very harmful e.g. electrocution, shock and even deaths
Thunder can destroy the environment
It can hurt/scare animals
It can burn vegetation (Any 4 x 2) (8)

1.5 1.5.1 Isobar (1 x 1) (1)

1.5.2 (a) A - High Pressure (1 x 1) (1)

(b) B - Low Pressure (1 x 1) (1)

1.5.3 1 020 hPa (1 x 2) (2)

1.5.4 (a) Summer (1 x 1) (1)

(b) Low pressure in the interior
High pressure further away from land (1 x 2) (2)

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1.5.5	Air temperature Wind direction Wind speed Precipitation Cloud cover	16° C South West 10 knots None Overcast	(5 x 1)	(5)
1.5.6			(1 x 2)	(2)
				[60]

QUESTION 2

2.1	2.1.1	C (geomorphology)		
	2.1.2	A (Laccolith)		
	2.1.3	D (continental drift)		
	2.1.4	B (Pangaea)		
	2.1.5	A (Crust)		
	2.1.6	B (Batholith)		
	2.1.7	A (Mesa, butte and conical hill)		
	2.1.8	A (rock cycle)	(8 x 1)	(8)
2.2	2.2.1	Earthquake	(1 x 1)	(1)
	2.2.2	A – Focus B – Epicentre C – Seismic waves D – Fault line	(4 x 1)	(4)
	2.2.3	more destruction	(1 x 1)	(1)
	2.2.4	Seismograph	(1 x 1)	(1)
2.3	2.3.1	*Folding* is the bending of rocks into folds due to strong compressional forces from the sides while *faulting* is a crack which forms in rocks as a result of continuous tension and compression forces.	(2 x 1)	(2)
	2.3.2	(a) An upfold – anticline	(1 x 1)	(1)
		(b) A downfold – syncline	(1 x 1)	(1)
	2.3.3	(a) X – normal fault	(1 x 1)	(1)
		(b) Y – reverse fault	(1 x 1)	(1)
	2.3.4	Tensional force	(1 x 1)	(1)

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2.3.5 **Importance of Lake Victoria**
Provides water for domestic and agricultural purposes
Employment and job creation through fishing
Food supply, given by the per capita fish quantities as well as the contribution of fish to animal protein at the national level
Tourist attraction

Importance of Mount Kilimanjaro
Generates revenue for the park and the local people
It alleviates poverty
Creation of employment opportunities
It enhances infrastructure to keep up with rising park prices and tourist expectations
(Any four. Must refer to both Lake Victoria and Mount Kilimanjaro)
(4 x 2) (8)

2.4 2.4.1 Rocks which form when magma cools (1 x 1) (1)

2.4.2 Basalt
Dolrite
Granite (3 x 1) (3)

2.4.3 Magma – Molten rock (1 x 1) (1)

2.4.4 It forms when the release of pressure causes magma to travel up the line of weakness
The magma then solidifies either under or over the earth surface
This becomes intrusive or extrusive igneous rocks (Any 2 x 2) (4)

2.4.5 **Uses of Igneous rocks**
Contains valuable metals such as copper, gold, iron, and manganese
Mining activities can take place to generate income
Serves as building materials
Can be used to make tombstones (Any 3 x 2) (6)

2.5 2.5.1 (a) 4% (1 x 1) (1)

(b) 20% (1 x 1) (1)

2.5.2 Physical defenses
Well-practised evacuation procedures (Any 1 x 1) (1)

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2.5.3 Damage to infrastructure
Loss of lives
Injury to people
Buildings destroyed
Destroys farmlands
Destroys the natural environment
Objects swallowed by earth (Any 3 x 2) (6)

2.5.4 Provide them with shelter
Provide them with food
Doctors and social workers must be sent there to treat those who were injured
Firefighters must be sent to Nepal
Give them money to start their lives
Provide them with clean water (Any 3 x 2) (6)
[60]

TOTAL SECTION A: 120

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SECTION B

QUESTION 3

3.1 MAPWORK CALCULATIONS AND TECHNIQUES

3.1.1 (a) 5 metres (1 x 1) (1)

(b) 5 times smaller (1 x 1) (1)

(c) Dam (1 x 1) (1)

3.1.2 Area = length (L) x breadth (B)

= 1,2 cm x 0,8 cm

= (1,2 cm / 10) x (0,8 / 10)

= 0,12 km x 0,08 km

= 0,0096 km^2 (4 x 1) (4)

3.1.3 (a) Difference in height = 209 m – 207,3 m
= 1,7 m (2 x 1) (2)

(b) Gentle (1 x 1) (1)

3.2 MAP AND PHOTO APPLICATION AND INTERPRETATION

3.2.1 (a) Road/ Railway (1 x 1) (1)

(b) Kromriver (1 x 1) (1)

(c) Reservoir (1 x 1) (1)

3.2.2 (a) July (1 x 1) (1)

(b) October (1 x 2) (2)

3.2.3
- The landscape loses shape
- It leads to land degradation /desertification
- Top soil/fertile soil with nutrients is lost
- Land loses importance for cultivation
- Plant and animal species lost by clearing vegetation
- It facilitates soil erosion

(**Any TWO**) (2 x 2) (4)

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3.2.4 - Dam water can overspread causing flood into the settlement
- They are located on a lower ground
- Mosquitos in summer cause malaria (disease)
- Unclean water especially in dry seasons cause cholera

(**Any ONE**) (1 x 2) (2)

3.3 3.3.1 Geographical Information System (1 x 1) (1)

3.3.2 Oblique photograph (1 x 1) (1)

3.3.3

FEATURE	NODE	LINEAR	POLYGON
Cultivated land			X
Reservoir	X		
Main road		X	

(3 x 1) (3)

3.3.4 (a) Data layering (1 x 1) (1)

(b) - Computers are faster
- More information is coming into the world
- GIS can be used in daily lives

(**Any ONE**) (1 x 2) (2)

[30]

TOTAL SECTION B: 30
GRAND TOTAL: 150

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