DEPARTMENT OF BASIC EDUCATION
PRIVATE BAG X895, PRETORIA 0001
2023 -05- 24
APPROVED MARKING GUIDELINE
PUBLIC EXAMINATION

basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

SENIOR CERTIFICATE EXAMINATIONS/ NATIONAL SENIOR CERTIFICATE EXAMINATIONS

GEOGRAPHY P1

2023

MARKING GUIDELINES

MARKS: 150

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These marking guidelines consist of 11 pages.

SECTION A: CLIMATE AND WEATHER AND GEOMORPHOLOGY

QUESTION 1: CLIMATE AND WEATHER

1.1 1.1.1 D (1)

1.1.2 B (1)

1.1.3 A (1)

1.1.4 C (1)

1.1.5 B (1)

1.1.6 A (1)

1.1.7 B (1)

1.1.8 B (1) (8 x 1) (8)

1.2 1.2.1 Z (1)

1.2.2 Y (1)

1.2.3 Y (1)

1.2.4 Z (1)

1.2.5 Z (1)

1.2.6 Y (1)

1.2.7 Z (1) (7 x 1) (7)

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1.3 1.3.1 Winter (1) (1 x 1) (1)

1.3.2 EVIDENCE FROM EXTRACT
(10/12/13) June /Date (1)
Cold fronts in the interior of Western/Eastern Cape (1)
High amounts of rainfall (1)
Significant drop in temperature (1)
[ANY ONE] (1 x 1) (1)

1.3.3 WHY A GREATER IMPACT
Northward movement of the high pressure belts (anticyclones)/ITCZ (2)
(1 x 2) (2)

1.3.4 Backing (1) (1 x 1) (1)

1.3.5 REASON
(The wind direction associated with the cold front will) **change from north-west to south-west** as the front moves over the Western Cape (2)
(1 x 2) (2)

1.3.6 SUGGEST POSITIVE AND NEGATIVE IMPACTS OF HEAVY RAINFALL ON PHYSICAL (NATURAL) ENVIRONMENT

Positive:
Brings much needed moisture to the soil (2)
Revival of biodiversity/ecosystem/habitat (2)
Water available for wildlife (2)
Water available for growth of natural vegetation (2)
Water allows for more grazing land/veld (2)
Fill up (by infiltration) natural aquifers/springs/groundwater (2)
Fill up (via surface runoff) rivers (2)

Negative:
(Low-lying) areas are flooded (2)
Soil erosion will increase (2)
Destruction of biodiversity/ecosystem/habitat (2)
Damage to natural vegetation (2)
Loss of wildlife (2)
Increase salination of rivers (2)
Saturation of soil (waterlogged conditions) (2)
Rock falls/mass movements on steeper slopes (2)
[ANY FOUR, RESPONSES MUST REFER TO BOTH POSITIVES AND NEGATIVES] (4 x 2) (8)

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1.4 1.4.1 EVIDENCE FOR SH
Clockwise movement of air (1)
Position of the leading left quadrant (1)
Wind direction shown by the symbol of the eye (1)
[ANY ONE] (1 x 1) (1)

1.4.2 TWO REASON FOR MATURE STAGE
Pressure in the centre is significantly below 1000 hPa (1)
Well-developed eye (1)
The area covered by the tropical cyclone is large (450km- 950km) (1)
The leading left quadrant (dangerous semicircle) is visible (1)
Isobars are closely spaced/pressure gradient is very steep (1)
[ANY TWO] (2 x 1) (2)

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1.4.3 INFLU ON CLOUD COVER
There will be no cloud cover/clear skies (2) (1 x 2) (2)

1.4.4 REASON FOR ANSWER
Descending air heats up resulting in no condensation (2)
Adiabatic heating reduces moisture/becomes dry (2)
[ANY ONE] (1 x 2) (2)

1.4.5 RELATION SHIP-WIND SPEED AND AIR PRESSURE
(a) Air pressure decrease and wind speed increases (2)
(b) Both air pressure and wind speed decreases (2) (2 x 2) (4)

1.4.6 WHY ISOBARIC REPRESENT ATION REFERRED TO LEFT HAND QUADRANT
It experiences the most intense weather conditions (accept examples of severe weather conditions) (2) (1 x 2) (2)

1.4.7 HOW LEFT HAND QUADRANT DEVELOPS
When the forward movement combines with the rotation of the system (2) (1 x 2) (2)

1.5.1
A South Atlantic (1)
B South Indian (1) (2 x 1) (2)

1.5.2 Summer (1) (1 x 1) (1)

1.5.3 GIVE REASON FOR SUMMER
Line thunderstorms (heavy rainfall) occur in the interior (2)
Cumulonimbus clouds/lightning/hail (2)
Moisture front developed (2)
Air from the east/west reaches the interior (2)
[ANY ONE] (1 x 2) (2)

1.5.4 WHAT IS A MOISTURE FRONT
The boundary (dry line) between **two air masses** of **different moisture content** (2)
[CONCEPT] (1 x 2) (2)

INSTRUCTION FOR PART MARKING
The boundary (dry line) between **two air masses** (1)

1.5.5
(Heavy) Rainfall (1)
Hail (1)
Thunderstorms (1)
[ANY TWO] (2 x 1) (2)

1.5.6 DESCRIBE THE FORMATION OF LINE THUNDER STORM
Convergence of warm moist air and cold dry air (2)
Moisture front develops (2)
Cold dry air undercuts warm moist air (2)
Warm moist air rises (2)
Condensation occurs in the eastern side of the moisture front (2)
Cumulonimbus clouds develops (2)
[ANY THREE] (3 x 2) (6)

[60]

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QUESTION 2 - GEOMORPHOLOGY

2.1.1 C (1)

2.1.2 A (1)

2.1.3 D (1)

2.1.4 B (1)

2.1.5 C (1)

2.1.6 B (1)

2.1.7 B (1)

2.1.8 C (1) (8 x 1) (8)

2.2 2.2.1 Z (1)

2.2.2 Y (1)

2.2.3 Y (1)

2.2.4 Y (1)

2.2.5 Z (1)

2.2.6 Z (1)

2.2.7 Y (1) (7 x 1) (7)

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2.3 2.3.1 Upper (1) (1 x 1) (1)

2.3.2 IDENTIFY CHARACTERISTICS OF VALLEY IN UPPER COURSE
Deep valleys (2)
Narrow/V-shaped valley (2)
Steep slopes (2)
Gorge (2)
Interlocking spurs (2)
Vertical erosion is dominant (2)
[ANY TWO] (2 x 2) (4)

2.3.3 WHAT IS A WATER FALL
A body of water's/river falling over hard rock/steep slope/vertical cliff (2)
[CONCEPT]

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INSTRUCTION FOR PART MARKING
A body of water's/river falling over (1) (1 x 2) (2)

2.3.4 **Y**- resistant/hard rock (1)
Z- less resistant/ soft rock (1) (2 x 1) (2)

2.3.5 HOW DOES EROSION CAUSE RETREAT OF WATER FALL

The softer rock (Z) is eroded leaving the hard rock (Y) exposed (2)
Erosion/undercutting of less resistant/soft rock occurs (2)
Erosion/undercutting will create a plunge pool (2)
The resistant/hard rock (Y) is not supported by the soft rock (Z) and overhang (2)
The overhanging resistant/hard rock collapses (2)
[ANY THREE] (3 x 2) (6)

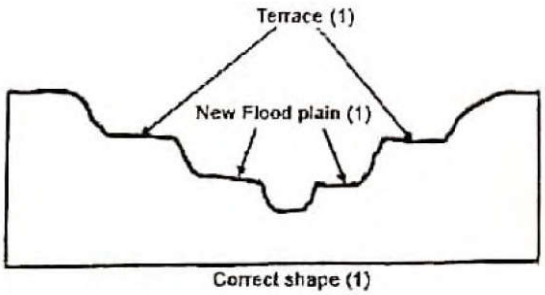
2.4 2.4.1 WHAT IS REJUVENATION

A process where a river **regains energy** (and begins to erode vertically/downwards again) (2)
[CONCEPT] (1 x 2) (2)

2.4.2 STATE TWO CAUSES OF REJUVENATION

Change in gradient (1) **OR**
(Accept Isostatic uplift (1) and/or Drop in sea level (1))
Increase in the volume of water (1) **OR**
(Accept Increase in rainfall (1) and/or River capture (1))
Joining of a faster tributary (1)
[ANY TWO] (2 x 1) (2)

2.4.3 CROSS-SECTION OF REJUVENATED VALLEY



Correct shape (1)

Mark distribution
Mark for correct shape of cross section (1)
Mark for indicating new flood plain on cross-section (1)
Mark for indicating ANY ONE Terrace on cross-section (1) (3 x 1) (3)

2.4.4 FORMATION OF RIVER TERRACES

A rejuvenated river cuts into the valley floor (2)
Downcutting creates a new flood plain (2)
A step forms between the old and new flood plains (2)
[ANY TWO] (2 x 2) (4)

2.4.5 EXPLAIN HOW LANDSCAPE NEGATIVELY IMPACTED INFRASTRUCTURE DEVELOPMENT

Steepness of slopes will hamper construction of roads/railway lines (2)
Softness of the underlying rocks causes instability to roads/ railway construction (2)
Terraces make it costly to build bridges (2)
Wide flood plain makes it difficult to build bridges (2)
[ANY TWO] (2 x 2) (4)

INSTRUCTION FOR PART MARKING- MAXIMUM OF TWO
Steepness of slopes (1)
Softness of the underlying rocks (1)
Terraces (1)
Wide flood plain(1)

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2.5 2.5.1 CAUSE FOR BLACK COLOUR RIVER

Coal mine waste have spilled into rivers (1)
Polluted mine waste burst from a slurry dam (1)
[ANY ONE] (1 x 1) (1)

2.5.2

Arsenic copper (1)
Lead (1)
Manganese (1)
[ANY TWO] (2 x 1) (2)

2.5.3 QUOTE MINING COMPANY DID NOT DISCLOSE

"the residents of the affected communities were **not warned** about the potential hazards until two weeks later" (2)
"Conservation managers in the neighboring Hluhluwe – Imfolozi Game Reserves were also made to believe that the spill was **under control**" (2)
[ANY ONE] (1 x 2) (2)

2.5.4 NEGATIVE ECONOMIC IMPACT OF NON DISCLOSURE

Eco-tourism affected (2)
Businesses in the community negatively affected (2)
Agricultural activities negatively affected (2)
Future investments in the communities limited (2)
Contamination of agricultural products (2)
Increase in medical bills (2)
(Water) purification is expensive (2)
[ANY ONE] (1 x 2) (2)

2.5.5 DESCRIBE THE ENVIRO IMPORTANCE OF MANAGING IMFOLOZI

SUGGEST MEASURES LOCAL MUNICIPALITY CAN IMPLEMENT TO MAINTAIN FUTURE QUALITY OF WATER

IMPORTANCE:
To ensure the availability of water (2)
To maintain water quality (2)
To preserve aquatic life (2)
To ensure that the ecosystem remains healthy (2)
To preserve biodiversity/ecosystem/habitat (2)

MEASURES:
Continuous monitoring of the dam (2)
Regular maintenance of the dam (2)
Frequent testing of water quality (2)
Impose fines to companies which do not comply (with regulation) (2)
Create buffer zone around slurry dam (2)
Educate community on the precautionary measures (2)
Awareness campaigns for people (bill boards, no dumping site signs) (2)
Implement policy/legislation (2)
Conserve natural vegetation in the drainage basins (2)
Regulate or control extraction of groundwater (2)
Promote sustainable farming methods upstream (2)
[ANY FOUR, RESPONSES MUST INCLUDE BOTH THE IMPORTANCE AND MEASURES] (4 x 2) (8)
[60]

TOTAL SECTION A: 120

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SECTION B

QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

3.1 3.1.1 B (1) (1 x 1) (1)

3.1.2 D (1) (1 x 1) (1)

3.1.3 VI = 1463 - 1183.3 = 279.7 (1) m

$\frac{VI = 279.7}{HE = 3000}$ (1) for correct substitution

Gradient = 1: 10.72 (1) (3 x 1) (3)

3.1.4 EVIDENCE FOR DIFFICULTY TO CONSTRUCT ROAD
The gradient is steep (1)
There are a number of valleys/rivers (1)
There are a number of spurs (1)
There is an excavation close by (1)
[ANY TWO] (2 x 1) (2)

3.1.5 (a) 1: 20 x 100 = 2000 (1)
1: 2000 (1) (2 x 1) (2)

(b) The cross-section (of the topographic map) has been vertically exaggerated by 5 times/The cross-section is 5 times larger (1)
(1 x 1) (1)

3.2 3.2.1 C (1) (1 x 1) (1)

3.2.2 IDENTIFY HUMAN MADE FEATURE
Built-up areas (1)
Road (1)
[ANY ONE] (1 x 1) (1)

3.2.3 EXPLAIN YOUR ANSWER
More heat is generated (accept examples) (2)
The built-up area absorbs more heat (accept examples) (2)
Multiple reflections (2)
Storm water drainage (2)
[ANY ONE] (1 x 2) (2)

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3.2.4 IDENTIFY NATURAL FEATURE
Woodlands/trees (1)
Rivers/ water (1)
Open spaces (1)
[ANY ONE] (1 x 1) (1)

3.2.5 C (1) (1 x 1) (1)

3.2.6 HOW RELIEF FAVOURS LOCATION
Gentle slope (flat land) (2)
Surrounding high-lying area creates safety (2)
Surrounding high-lying area will buffer the noise (2)
[ANY ONE] (1 x 2) (2)

	3.2.7 DESCRIBE TWO FACTORS LIMITING POLLUTION-KLEIN-MARICO POORTDAM	The settlement is away from the dam (2) The woodland forms a buffer (2) Most tributaries feeding the dam have their origin in high-lying areas with no human activities (2) **[ANY TWO]**	(2 x 2)	(4)
3.3	3.3.1	B (1)	(1 x 1)	(1)
	3.3.2	C3 (1)	(1 x 1)	(1)
	3.3.3 GIVE ONE ATTRIBUTE DATA	Name of the monument (1) The date of birth and death of Diederich Coetzee (1) Height of the monument above sea level (1) **[ANY ONE]**	(1 x 1)	(1)
	3.3.4	Personnel/ people/ user (1)	(1 x 1)	(1)
	3.3.5 ONE REASON FOR IMPORTANCE OF GIS COMPONENET	Manipulate the data (2) Input of data (2) Use appropriate GIS methods (2) Make information more accessible to users (2) Make information more understandable for users (2) Acquires the soft and hardware to be used (2) Acquire/collect data (2) **[ANY ONE]**	(1 x 2)	(2)
	3.3.6 REASON FOR DATA INTEGRATION IN ILLUSTRATION	Different maps were **integrated** into one map (2)	(1 x 2)	(2)

TOTAL SECTION B: 30
GRAND TOTAL: 150

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