

# SA's Leading Past Year

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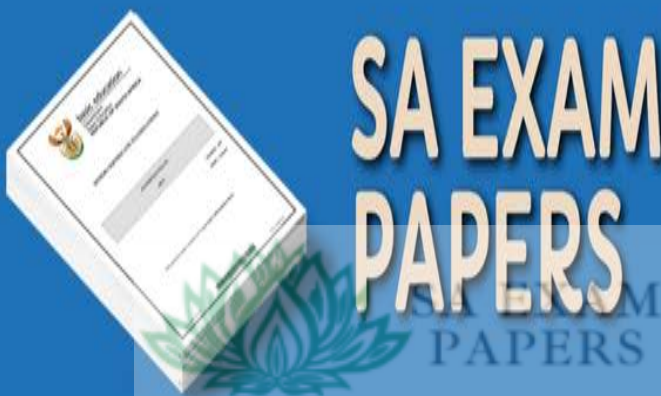


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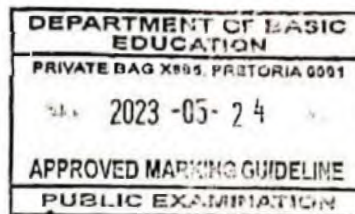
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**SENIOR CERTIFICATE EXAMINATIONS/  
NATIONAL SENIOR CERTIFICATE EXAMINATIONS**

**GEOGRAPHY P1**

**2023**

**MARKING GUIDELINES**

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)

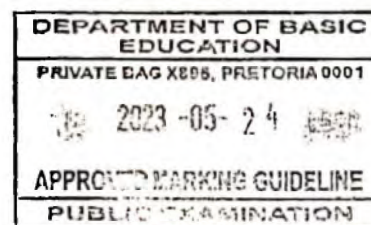
1.2.6 Y (1)

1.2.7 Z (1)

(7 x 1) (7)

DBE/2023

- 1.3 1.3.1 Winter (1) (1 x 1) (1)
- 1.3.2 (10/12/13) June /Date (1)  
EVIDENCE FROM EXTRACT 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 Northward movement of the high pressure belts (anticyclones)/ITCZ (2)  
WHY GREATER IMPACT (1 x 2) (2)
- 1.3.4 Backing (1) (1 x 1) (1)
- 1.3.5 (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)  
REASON (1 x 2) (2)
- 1.3.6 Positive:  
SUGGEST POSITIVE AND NEGATIVE IMPACTS OF HEAVY RAINFALL ON PHYSICAL (NATURAL) ENVIRONMENT  
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)
- 1.4 1.4.1 Clockwise movement of air (1)  
EVIDENCE FOR SH 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 Pressure in the centre is significantly below 1000 hPa (1)  
TWO REASON FOR MATURE STAGE 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)





DBE/2023

- 1.4.3 INFLUENCE 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 RELATIONSHIP-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 ISOBARS REPRESENTATION 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 WHAT IS A MOISTURE FRONT 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)

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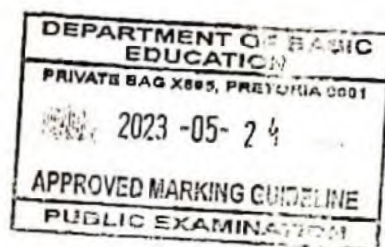
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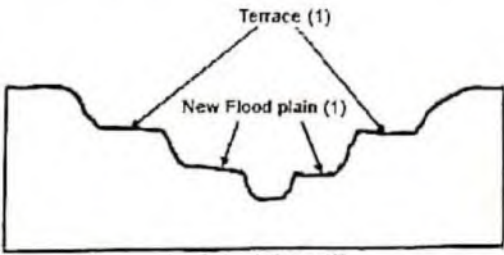
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**[60]**

**QUESTION 2 - GEOMORPHOLOGY**

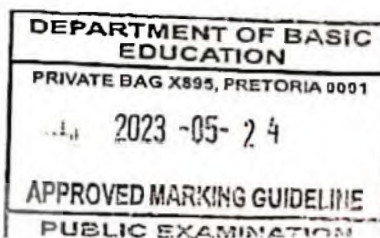
- 2.1.1 C (1)
- 2.1.2 A (1)
- 2.1.3 D (1)
- 2.1.4 B (1)
- 2.1.5 C (1)
- 2.1.6 B (1)
- 2.1.7 B (1)
- 2.1.8 C (1) (8 x 1) (8)
- 2.2 2.2.1 Z (1)
- 2.2.2 Y (1)
- 2.2.3 Y (1)
- 2.2.4 Y (1)
- 2.2.5 Z (1)
- 2.2.6 Z (1)
- 2.2.7 Y (1) (7 x 1) (7)
- 2.3 2.3.1 Upper (1) (1 x 1) (1)
- 2.3.2 IDENTIFY CHARACTERISTICS 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]** (1 x 2) (2)
- INSTRUCTION FOR PART MARKING**  
A body of water's/river falling over (1)
- 2.3.4 Y- resistant/hard rock (1)  
Z- less resistant/ soft rock (1) (2 x 1) (2)



- 2.3.5 The softer rock (Z) is eroded leaving the hard rock (Y) exposed (2)  
 HOW DOES EROSION CAUSE RETREAT OF WATER FALL  
 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 A process where a river **regains energy** (and begins to erode vertically/downwards again) (2)  
 WHAT IS REJUVENATION  
**[CONCEPT]** (1 x 2) (2)
- 2.4.2 Change in gradient (1) OR  
 STATE TWO CAUSES OF REJUVENATION  
 (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 A rejuvenated river cuts into the valley floor (2)  
 FORMATION OF RIVER TERRACES  
 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 Steepness of slopes will hamper construction of roads/railway lines (2)  
 EXPLAIN HOW LANDSCAPE NEGATIVELY IMPACTED INFRASTRUCTURE DEVELOPMENT  
 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)





- 2.5 2.5.1 Coal mine waste have spilled into rivers (1)  
Polluted mine waste burst from a slurry dam (1)  
[ANY ONE] (1 x 1) (1)  
CAUSE FOR BLACK COLOUR RIVER
- 2.5.2 Arsenic copper (1)  
Lead (1)  
Manganese (1)  
[ANY TWO] (2 x 1) (2)
- 2.5.3 "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)  
QUOTE MINING COMPANY DID NOT DISCLOSE
- 2.5.4 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)  
NEGATIVE ECONOMIC IMPACT OF NON DISCLOSURE
- 2.5.5 **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)  
DESCRIBE THE ENVIRONMENTAL IMPORTANCE OF MANAGING IMFOLOZI SUGGEST MEASURES LOCAL MUNICIPALITY CAN IMPLEMENT TO MAINTAIN FUTURE QUALITY OF WATER

[60]

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APPROVED MARKING GUIDELINE
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TOTAL SECTION A: 120

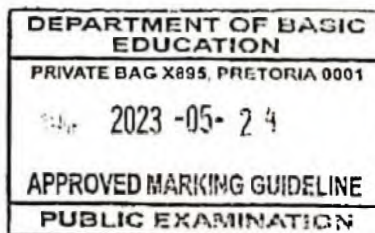




## SECTION B

## 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)  $1: 20 \times 100 = 2000$  (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)
- 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)		(2 x 2)	(4)
	[ANY TWO]			
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 ATTRIBUT E DATA	Name of the monument (1)			
	The date of birth and death of Diederich Coetzee (1)			
	Height of the monument above sea level (1)		(1 x 1)	(1)
	[ANY ONE]			
	3.3.4	Personnel/ people/ user (1)	(1 x 1)	(1)
3.3.5 ONE REASON FOR IMPORTANC E OF GIS COMPONEN ET	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)		(1 x 2)	(2)
		[ANY ONE]		
3.3.6 REASON FOR DATA INTEGRATIO N IN ILLUSTRA TION	Different maps were integrated into one map (2)		(1 x 2)	(2)
			TOTAL SECTION B:	30
			GRAND TOTAL:	150

