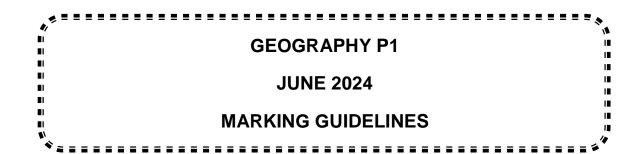


# education

Department: Education North West Provincial Government REPUBLIC OF SOUTH AFRICA

## **PROVINCIAL ASSESSMENT**

**GRADE 11** 



**MARKS: 150** 

This marking guideline consists of 7 pages.

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#### **SECTION A**

#### **QUESTION 1: THE ATMOSPHERE**

1.1

1.1.1	D	(1)	
1.1.2	D	(1)	
1.1.3	В	(1)	
1.1.4	С	(1)	
1.1.5	А	(1)	
1.1.6	А	(1)	
1.1.7	А	(1)	

1.2

- 1.2.1 Y / drought (1)
- 1.2.2 Y / a long period without rain (1)
- 1.2.3 Y / Food security (1)
- 1.2.4 Z / Soil erosion (1)

66° / 23,4°

West to east

- 1.2.5 Z / High pressure system (1)
- 1.2.6 Y / A challenge for the economy (1)

22 December

- 1.2.7 Z / deep and narrow (1)
- 1.2.8 Y / Drought awareness (1)
- 1.3

1.3.1

1.3.2

1.3.3

a)

(1 x 2) (2)

(8 x 1)

(7 x 1)

(7)

(8)

(4)

- (1 x 1) (1)
- (1 x 1) (1)
- b) The Earth revolves around the sun and this takes 365¼ days (2) The Earth's orbit around the sun is not circular but elliptical which means that during some periods in the year it is closer to the sun and at other times it is further away and that causes seasons (2) As the NH tilts towards the sun, it experiences summer As the SH tilts away from the sun it experiences winter (2 x 2)

#### [ANY TWO]

1.3.4 Equinox – The sun is directly overhead the equator and on 21 March and 22 September the length of day and night is equal throughout the world (2)

Solstice – On 22 December / summer solstice the sun is directly over the Tropic of Capricorn and SH has longest day light and shortest night (2)

On 21 June the sun is directly over Tropic of Cancer and all places in the SH will have the longest night and shortest day

(2 x 2) (2)

	1.3.5	The equator receives direct sun light (2) The sun heats up a smaller surface (2) The sun's rays pass through lesser atmosphere to reach the surface as compared to the poles. (2) Equator faces the sun all year round as compared to the poles. (2) [ANY TWO]	(2 x 2)	(4)
1.4				
	1.4.1	Summer (1)	(1 x 1)	(1)
	1.4.2	Date on the map / 2024/02/23 (2) Cold front more to the south (2) SAA and SIA high pressure systems more to the south (2) [ANY TWO]	(2 x 2)	(4)
	1.4.3	Feature A – Cold front (1) Feature B – warm front (1)	(2 x 1)	(2)
	1.4.4	<ul><li>a) Equatorial low pressure belt(1)</li><li>b) Sub tropical high pressure belt (2)</li></ul>	(2 x 1)	(2)
	1.4.5	No cloud cover, therefore fair weather (2) Difference of 10°C between air temp and dewpoint temp (2) Light wind of 10 knots (2) Wind direction is to the east (2) [ANY TWO]	(2 x 3)	(6)
1.5				
	1.5.1	Föhn wind – Warm dry wind that descend on the leeward side of a mountain.	(1 x 2)	(2)
	1.5.2	Windward side (1)	(1 x 1)	(1)
	1.5.3	Moist air rises up the windward slope (2) The rate of cooling is lapse rate (2) WALR is 0,5 °C per 100m Condensation occurs and clouds form and it rains As the air descends down the leeward side Warm air warms up at DALR There is now very little moisture in the atmosphere Temperature rises rapidly at the leeward side of the mountain	(2 x 2)	(4)
	1.5.4	Veld or forest fires (2) Can cause serious natural disasters (2) Dry up plants and farm land (2) Can cause draughts(2) May melt snow causing flooding (2)	(4 x 2)	(8)

[60]

QUESTION 2: GEOMORPHOLOGY					
2.1	2.1.1	C (1)			
	2.1.2	F (1)			
	2.1.3	G (1)			
	2.1.4	E (1)			
	2.1.5	A (1)			
	2.1.6	B (1)			
	2.1.7	D (1)	(7 x 1)	(7)	
2.2	2.2.1	D (1)			
	2.2.2				
		A (1)			
	2.2.3	D (1)			
	2.2.4	B (1)			
	2.2.5	C (1)			
	2.2.6	C (1)			
	2.2.7	B (1)			
	2.2.8	A (1)	(8 x 1)	(8)	
2.3	2.3.1	A ridge that develop in tilted sedimentary rock characterised by a gentle slope and a steep slope (2) [Concept] (1)	(2 x 1)	(2)	
	2.3.2	A forms when the rock strata in the centre are pushed upward (2) B forms when the rock strata in the centre are pushed downward (2)	(2 x 2)	(4)	
	2.3.3	Homoclinal ridge(1) Hogsback (1)	(1 x 1)	(1)	
	2.3.4	Dip slope is gentle (2) Scarp slope is steep (2)	(2 x 2)	(4)	
	2.3.5	<ul> <li>Farming takes place in the cuesta valleys situated between the ridges, as the flat surface is covered in fertile soil (2)</li> <li>Where cuesta basins form, artesian wells, which are sources of groundwater, are found (2)</li> <li>These basins can also form oil traps (2)</li> </ul>			

2.4

#### 5 Grade 11 – Marking Guidelines

These ridges are of strategic importance, as they can protect settlements on the cuesta valley floors during times of war (2) The ridges form excellent lookout points (2) Many outdoor activities are concentrated in these landscaping e.g. hang gliding and hot air ballooning (2) (2 x 2) (4) [Any TWO] 2.4.1 Horizontal strata (1) (1 x 1) (1)2.4.2 40 40 20 20 40 40 60 60 60 60 (1 x 2) (2)

2.4.3	Canyon landscapes develop in areas where horizontal strata have unequal resistance to erosion Tectonic uplift forms large, flat plateaus Rejuvenated rivers flow on these landscapes and create deep valleys called canyons e.g. Fish River	(2 x 2)	(4)
		(2 × 2)	(')
2.4.4	Canyon landscapes form good tourist attractions (2) Its rugged landscape is not suitable for agriculture, settlement and the construction of infrastructure (2)	(2 x 2)	(4)
2.4.5	Scarp retreat is erosion of a scarp slope causing loss of ground over the whole slope, but no loss of height (2) As plateau surface narrows, canyon floors become wider and a		
	pediplain forms Karoo landscapes develop from canyon landscapes	(2 x 2)	(4)
2.5.1	$\mathbf{Y}_{i}$ borizoptol atructure (1)		
2.3.1	X: horizontal structure (1) Y: inclined structure (1)	(1 x 2)	(2)
2.5.2	Inclined (1)	(1 x 1)	(1)
2.5.3	A has a broad base than B (2) B is smaller than A (2)	(2 x 2)	(4)
2.5.4	In humid climates, the slopes of hills are suitable for farming. (2) Basaltic plateaus are great tourist attractions. (2) Some plateaus (e.g. Deccan plateau in India) are suited for human settlement and agriculture. (2)		

2.5

NW/June. 2024

Canyon landscapes have impressive scenery and are tourist attractions. (2)		
Canyon landscapes can be used for recreational purposes examp hiking, abseiling etc. (2)	ple	
Karoo landscapes are suitable for stock farming. (2)	(4 x 2)	(8)
[Any FOUR]		

#### SECTIOB B

#### **QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES**

#### 3.1 MAP SKILLS AND CALCULATIONS

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

- 3.1.3 C (1) (1 x 1) (1)
- 3.1.4 412,1 m (1 x 2) (2)
- 3.1.5 Steep (1) (1 x 1) (1)

3.1.6	2024 – 2017 = 7 years (1)		
	7 years x 10 W (1) = 70 W (1)		
	26°25' W		
	<u>+ (1) 70'W</u>	(5 x 1)	(5)
	27° 35 'West of True North (1)		

#### 3.2 MAP INTERPRETATION

- 3.2.1 D (1) Valley (1 x 1) (1)
- 3.2.2 A (1) Dam (1 x 1) (1)
- 3.2.3 (a) Summer (1)
   (1 x 1) (1)

   3.2.4 Thermal low pressure / heat low (2)
   (1 x 2) (2)
- 3.2.5 (a) Novice / first time (1) (1 x 2) (2)
  - (b) The hiking trail is spread over flat land (2) The walking distance is not that far (2) (2 x 2) (4) [ANY ONE]
- 3.2.6The river flows towards the bend of the contour line (2)<br/>The dam wall faces the west (2)(2 x 2)(4)

### 3.3 **GEOGRAPHICAL INFORMATION SYSTEMS**

3.3.3	No (1)	(1 × 1)	(1)
		(1 x 1)	(1)
3.3.4	More pixels have been used thus the orthophoto map is very The features on the orthophoto map are clear/ not fuzzy (1) [ANY ONE]	clear (1) (1 x 2)	(2)
3.3.5 3.3.2	The cultivated land is an example of a polygon and vector dat It is near the arterial route making it more accessible (2) It is built on flat land (2) It is built next to the cultivated land (2)	a. (2) (1) (1 x 2)	(2)
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