education

Department of Education
FREE STATE PROVINCE

PREPARATORY EXAMINATION



GRADE 12

GEOGRAPHY P1

SEPTEMBER 2025

MARKS: 150

MARKING GUIDELINES

This marking guideline consists of 9 pages.

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SECTION A: CLIMATE AND WEATHER AND GEOMORPHOLOGY

QUESTION 1: CLIMATE AND WEATHER

1.1

1.1.1 Urban heat island (1 x 1) (1)

1.1.2 Isotherm (1 x 1) (1)

1.1.3 B (1 x 1) (1)

1.1.4 A (1 x 1) (1)

1.1.5 A (1 x 1) (1)

1.1.6 A (1 x 1) (1)

1.1.7 A (1 x 1) (1)
(7 x 1) (7)

1.2

1.2.1 Summer (1 x 1) (1)

1.2.2 Heat low (1 x 1) (1)

1.2.3 Faster (1 x 1) (1)

1.2.4
- Westwards
- From east to west

(Any one) (1 x 1) (1)

1.2.5 Mature stage (1 x 1) (1)

1.2.6
- Cloudless
- Calm
- No rain

(Any one) (1 x 1) (1)

1.2.7
- Heavy rainfall
- Strong winds
- Storm surges

(Any one) (1 x 1) (1)

1.2.8
- Cooler air flows into the cyclone increasing the pressure.
- Supply of moisture is cut off
- Surface friction slows it down.

(Any one) (1 x 1) (1)
(8 x 1) (8)

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1.3	1.3.1	1 – cold front 2 – warm front	(2 x 1)	(2)
	1.3.2	• Northward movement of the anticyclones in winter. • Northward movement of the wind belts/wind belts move north in winter. • Midlatitude cyclones move from west to east thus passing through the Western Cape in winter. **(Any one)**	(1 x 2)	(2)
	1.3.3	Family of cyclones	(1 x 1)	(1)
	1.3.4	• High torrential rainfall will cause flooding. • The snowfalls and ice will cause the roads to be slippery. • Rainfall will cause limited visibility for drivers. **(Any two)**	(2 x 2)	(4)
	1.3.5	• Winter rainfall that is necessary for winter crops. • Production of winter crops results in food security. • Rain replenishes water in dams and rivers. • Snow in the mountains replenishes water when it melts. • Grazing for animals. **(Any three)**	(3 x 2)	(6)
				(15)
1.4	1.4.1	A: Summer B: Winter	(2 x 1)	(2)
	1.4.2	Air movement is anticlockwise	(1 x 1)	(1)
	1.4.3	• Sketch A: the inversion layer has weakened allowing the advection of warm air into the interior resulting in rain over South Africa. • Sketch B: strong subsidence blocks the advection of warm air into the interior, which results in dry conditions over the interior of South Africa.	(2 x 2)	(4)
	1.4.4	• When thermal low-pressure and coastal low-pressure cells are located over South Africa. • Results in a low-pressure trough that feeds warm moist air to the interior from the northeast. • Warm air converges with cold, dry air from the southwest. • Cold air lifts the warm air which cools adiabatically, condenses, and forms tall cumulonimbus clouds. • Associated with thunderstorms, heavy rain, and possible hail. **(Any two)**	(2 x 2)	(4)

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1.4.5
- Can fan the spread of veld fires.
- Veld fires impact the natural environment, humans and animals.
- Farmers may lose houses, equipment and livestock.
- Natural bush and grazing may be lost.
- Animal habitats may be destroyed.
- Dry, warm conditions can cause heat stroke and discomfort.
- People and animals can suffer from dehydration.

(Any two) (2 x 2) (4)
(15)

1.5 1.5.1 The direction in which the slope is facing (1 x 2) (2)

1.5.2 Southern hemisphere (1 x 1) (1)

1.5.3
- The village is on the north-facing slope.
- North-facing slopes are warmer in the southern hemisphere
- Receive maximum sunlight.
- Located in the middle slope of the valley to avoid cold conditions at night.

(Any two) (2 x 2) (4)

1.5.4
- Area K is a frost pocket.
- Too cold for humans to build settlements.
- Cold air drains down valley slopes.
- Affect farmers if frost-sensitive crops are grown on the valley floor.
- Damages natural vegetation and crops.
- There can be ice on the floor or the roads with moisture and slippery surfaces.
- The area is prone to flooding.

(Any four) (4 x 2) (8)
(15)
[60]

QUESTION 2: GEOMORPHOLOGY

2.1
2.1.1 A
2.1.2 B
2.1.3 A
2.1.4 A
2.1.5 B
2.1.6 B
2.1.7 B
2.1.8 A

(8 x 1) (8)

2.2
2.2.1 B
2.2.2 A
2.2.3 A
2.2.4 B
2.2.5 A
2.2.6 A
2.2.7 B

(7 x 1) (7)

2.3 2.3.1 **A**: natural levee
B: flood plains (2 x 1) (2)

2.3.2 Lower course (1 x 1) (1)

2.3.3 Lighter and smaller load is dropped farther away from the riverbanks. (1 x 2) (2)

2.3.4
- The repeated flooding of the river formed levees.
- When the river floods, the biggest, most coarse material will be deposited.
- This will be close to the riverbanks.
- Continuous flooding causes repeated deposition on the riverbanks.
- The banks form levees made of sediment, silt, and other materials.

(Any two) (2 x 2) (4)

2.3.5
- They prevent rivers from flooding.
- Levees are usually parallel to the way the river flows, so levees can help direct the flow of the river.
- Levees can also provide a measure of protection from invaders.
- Fertile soil near levees is suitable for farming.
- Levees may be used to increase available land for habitation.

(Any three) (3 x 2) (6)
(15)

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2.4	2.4.1	When the more energetic (active) river, captures some of the water of a less energetic river**. (Concept)**	(1 x 2)	(2)
	2.4.2	Headward erosion/abstraction	(1 x 1)	(1)
	2.4.3	**A**: it is the point of capture when the pirate stream joins the captured stream **B**: river gravels that show that a stream once flowed before river capture.	(2 x 1)	(2)
	2.4.4	• Steeper gradient on the side of stream C of the watershed. • Stream C is the low-lying stream with more energy. • Higher precipitation, giving greater runoff and more erosion to stream C. • Softer rocks on the side of stream C cause faster erosion. • Presence of faults or joints in rocks to assist the erosion process. **(Any one)**	(1 x 2)	(2)
	2.4.5	• Volume of water increases in the stream. • Downward erosion increases. • The carrying capacity of the river increases. • River rejuvenates. • The valley of the river will be widened. • Flooding may occur • Knick point/a sharp break in the slope created near the point of capture due to rejuvenation **(Any four)**	(4 x 2)	(8) (15)
2.5	2.5.1	Store water and protecting for future use.	(1 x 2)	(2)
	2.5.2	Phuthaditjhaba	(1 x 1)	(1)
	2.5.3	• Excessive use of pesticides and fertilisers run into the river. • Runoff from farmlands nutrients/agrochemicals into the river.	(2 x 2)	(4)
	2.5.4	• People will consume contaminated water. • Communities may catch waterborne diseases transmitted by contaminated water including cholera, giardia and typhoid fever. • Water shortages due to polluted water. • Communities will not have access to water.	(2 x 2)	(4)

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2.5.5
- Vegetation must be maintained in areas close to rivers.
- Deforestation must be controlled.
- Avoid construction and settlements on the floodplains.
- Educate farmers on sustainable farming methods.
- Educate the public on water conservation.
- Wetlands must be conserved.
- Legislation to control what is discharged into rivers.
- Legislation to control the pollution of underground water.

(Any two) (2 x 2) (4)

(15)

[60]

TOTAL SECTION A: 120



SECTION B: GEOGRAPHICAL SKILLS AND TECHNIQUES

QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

3.1	3.1.1	B	(1 x 1)	(1)
	3.1.2	B	(1 x 1)	(1)
	3.1.3	4.2 cm√ x 500 range (4.1 cm–4.3 cm) 2100 m√ range (2050 m–2150 m)	(1 x 2)	(2)
	3.1.4	1315.6 m – 829 m = 486.6 m	(1 x 1)	(1)
	3.1.5	$\frac{486.6√}{2100}$ 1:4.21√ range (1:4.21–1:4.41)	(2 x 1)	(2)
	3.1.6	240° range (239°–241°)	(1 x 2)	(2)
	3.1.7	• Compass bearings are used as a navigation method concerning the north direction by angles. • They help locate objects or positions within the map • Bearings indicate a straight line from one position to another. **(Any one)**	(1 x 1)	(1) (10)
3.2	3.2.1	Permanent	(1 x 1)	(1)
	3.2.2	School	(1 x 1)	(1)
	3.2.3	Meander	(1 x 1)	(1)
	3.2.4	Soil erosion	(1 x 2)	(2)
	3.2.5	• Stop overgrazing • Planting more vegetation • Contour ploughing **(Any one)**	(1 x 2)	(2)
	3.2.6	Radial pattern	(1 x 1)	(1)
	3.2.7	Dome	(1 x 2)	(2)
	3.2.8	• The shadow of features on the map is leaning towards the southeast. • If the map shows long shadows that point to the west, it is likely taken in the morning. • if the shadows are long and point toward the east, the photograph was likely taken in the afternoon.	(1 x 2)	(2) (12)

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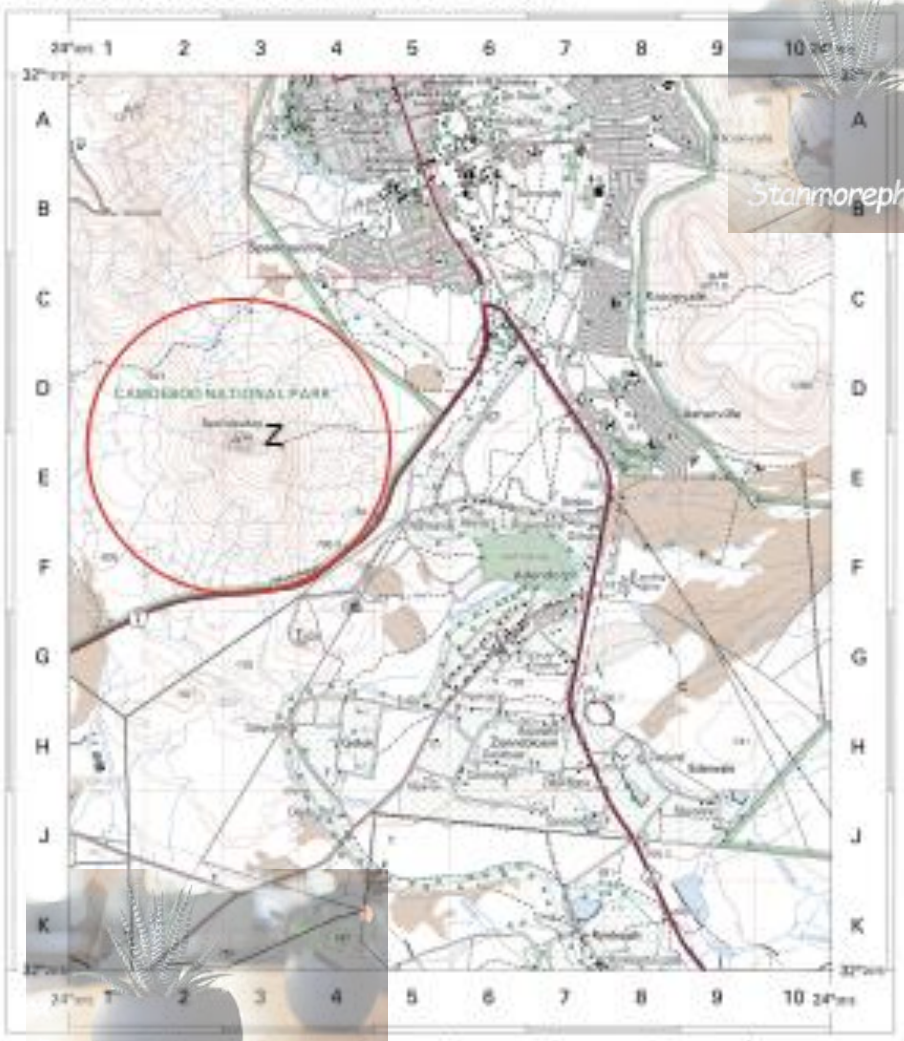
3.3	3.3.1	orthophoto	(1 x 1)	(1)
	3.3.2	Data analysis	(1 x 1)	(1)
	3.3.3	• It is a trigonometrical beacon • Trig station number is 90 • Altitude is 3315.6metres • It is at Spandoukop • It is a hill **(Any two)**	(2 x 1)	(2)
	3.3.4	• Availability of water • Fertility of soil • Relief of the land (slope) • Microclimate • Access to infrastructure/transport **(Any two)**	(2 x 2)	(4)
				(8)
				[30]

TOTAL SECTION B: 30
GRAND TOTAL: 150

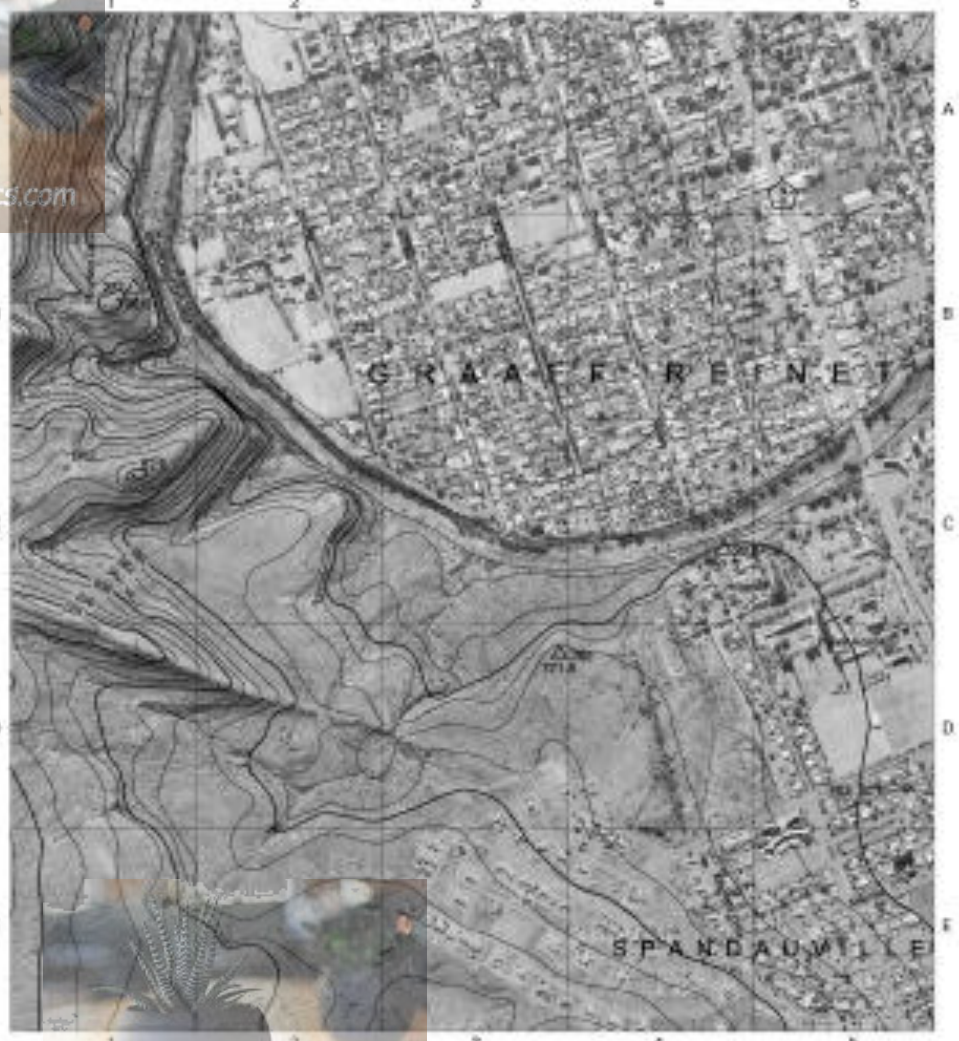
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