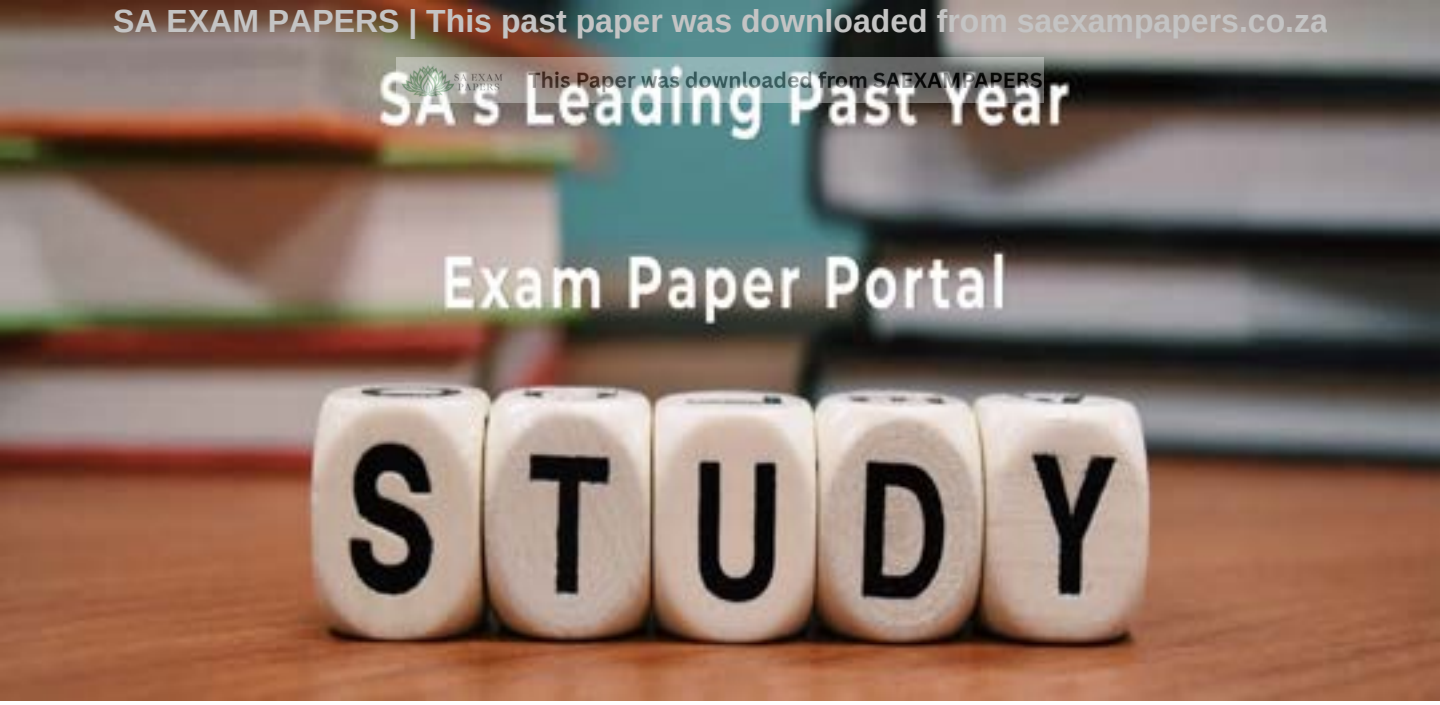


METRO CENTRAL EDUCATION DISTRICT

COMMON TRIAL EXAM

GRADE 12

GEOGRAPHY PAPER 1
29 AUGUST 2025

UPDATED MARKING GUIDELINE

MARKS: 150

TIME: 3 hours

This paper consists of 14 pages

MARKING PRINCIPLES FOR GEOGRAPHY PAPER 1 - 29 AUGUST 2025

The following marking principles have been developed to standardise marking in all provinces.

MARKING

- ALL questions MUST be marked, irrespective of whether it is correct or incorrect
- Where the maximum marks have been allocated for a particular question, place an over the remainder of the text to indicate the maximum marks have been achieved.
- Where a correct fact has been mentioned more than once in a specific response
- A clear, neat tick must be used: ✓
  - If ONE mark is allocated, ONE tick must be used: ✓
  - If TWO marks are allocated, TWO ticks must be used: ✓✓
  - The tick must be placed at the FACT that a mark is being allocated for
  - Ticks must be kept SMALL, as various layers of moderation may take place
- Incorrect answers must be marked with a clear, neat cross: ×
  - Use MORE than one cross across a paragraph/discussion style questions to indicate that all facts have been considered
  - Do NOT draw a line through an incorrect answer
  - Do NOT underline the incorrect facts

For the following action words, ONE word answers are acceptable: **list**, **name**, **state**, **identify**

For the following action words, a FULL sentence must be written: **describe**, **explain**, **evaluate**, **analyse**, **suggest**, **differentiate**, **distinguish**, **define**, **discuss**, **why**, **how**

The following action words need to be read within its context to determine whether a ONE-word answer or FULL sentence is required: **provide**, **what**, **tabulate** and **give**

TOTALLING AND TRANSFERRING OF MARKS

- Each sub-question must be totalled
  - Questions in Section A has five sub-sections, therefore five sub-totals per question required. Section B has three sub-sections and three sub-totals.
  - Sub-section totals to be written in the right-hand margin at the end of the sub-section and underlined
  - Sub-totals must be written legibly
  - Leave room to write in moderated marks on different levels
- Total sub-totals and transfer total to top left-hand margin next to question number
- Transfer total to cover of answer book

30

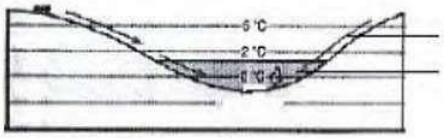
QUESTION 1

1.1.1 A (South Atlantic High) (1) ✓
1.1.2 B (Kalahari High) (1) ✓
1.1.3 B (South Indian) (1) ✗ **2**

1.2.1 Melting snow ✓
1.2.2 Mouth ✗
1.2.3 Third order ✓ **2**

1.3.1 Katabatic ✗
1.3.2 **1** occurs during the day while **2** occurs at night ✓✓

1.3.3 Cold air rolls down into the valley and forms an inversion ✓✓



Air flows downslope ✓✓ **6**

1.4.1 Shape of front concave ✗
Steep gradient of front ✓

1.4.2 Warm air undercuts the cold air ✗

1.4.3 **Air behind the** cold **front** is colder than the air in front. Cold air moves faster than warm **air ahead** of it. **Cold** front catches up with the warm front. ✓✓ ✓✓ ✓ **7**

1.5.1 (a) A **river that** only flows all year round ✗

(b) The river channel is wide ✗

(c) Regularity of rainfall and the soil type over which the streams flow. ✓✓

1.5.2 Gauteng and the Eastern Cape ✓ ✗

1.5.3 The cost of food production will increase at it is costly to buy purified water. Farmers will have to buy more chemicals to purify water. Chemicals cost a lot and this will increase production costs. It will be costly to purify water for use in electricity generation. These costs will be included in electricity prices. Costs will increase the price of electricity during production. There will be less clean water to generate hydro- electricity. ✓ ✓ ✓ ✓ M **13**

SECTION A: CLIMATE AND WEATHER AND GEOMORPHOLOGY
QUESTION 1: CLIMATE AND WEATHER

1.1

1.1.1	anabatic wind (1)		
1.1.2	radiation fog (1)		
1.1.3	Isotherm (1)		
1.1.4	thermal belt (1)		
1.1.5	temperature inversion (1)		
1.1.6	katabatic wind (1)		
1.1.7	hygroscopic nuclei (1)		
1.1.8	frost pocket (1)	(8 x 1)	(8)

1.2

1.2.1	A (1)		
1.2.2	D (1)		
1.2.3	C (1)		
1.2.4	B (1)		
1.2.5	D (1)		
1.2.6	C (1)		
1.2.7	A (1)	(7 x 1)	(7)

1.3.1	Summer (1) / Early Autumn (1) **ANY ONE**	(1 x 1)	(1)
1.3.2	8 (1)	(1 x 1)	(1)
1.3.3	Bodies buried without being registered (1) Bodies had been eaten by crocodiles (1) Bodies had been washed out to sea (1) **ANY ONE**	(1 x 1)	(1)
1.3.4	Sea surface temperatures must be above 27°C for evaporation to occur and produce latent heat. (2) Coriolis force is needed to cause spiralling winds. (2) Converging winds near the ocean surface forcing air to rise and form storm clouds. (2) **ANY TWO – must qualify answer**	(2 x 2)	(4)
	Part marking Sea surface temperatures must be above 27°C (1) Coriolis force (1) Converging winds near the ocean (1) **ANY TWO**	(2 x 1)	(2)
1.3.5	Madagascar shields / protects the eastern coastline from being struck by tropical cyclones.(2) It weakens when over Madagascar (2) Madagascar slows it down/ (2) Madagascar protects South Africa from the full strength of the tropical cyclone (2) The friction over the land weakens the tropical cyclone (2) **ANY ONE**	(1 x 2)	(2)
1.3.6	Ensure that there is a disaster management plan (2) Monitor the path of the cyclone and its development (2) Using remote sensors on satellite to track the cyclone (2) Satellite sensors to collect details, e.g. rainfall rates. (2) Advanced weather predictions and warnings. (2) Early warning and communication for people to prepare (2) Prepare evacuation plans (2) Evacuate low-lying areas to protect people against floods (2) Build strong shelters where people can gather before a storm arrives (2) Upgrade technology (2) Ensure infrastructure is of good quality (2) Stock up on non-perishable food, bottled water, torches, medication (2) Awareness campaigns / Education (2) **ANY THREE**	(3 x 2)	(6)

1.4			
1.4.1	B (1) **OR** Indian Ocean (1)	(1 x 1)	(1)
1.4.2	summer (1)	(1 x 1)	(1)
1.4.3	moisture front (1) / trough line (1)	(1 x 1)	(1)
1.4.4	Convergence of air masses from the two high-pressure systems (2) Warm, moist air from Indian Ocean meets cooler, drier air from Atlantic (2) Rising air creates instability and convection (2) **ANY TWO**	(2 x 2)	(4)
1.4.5	Heavy rainfall / thundershowers (2) Lightning (2) Strong gusty winds (2) Hail (2) Decrease in temperature (2) Low cloud cover (2) Cumulonimbus clouds (2) High humidity (2) **ANY TWO**	(2 x 2)	(4)
1.4.6	Install lightning conductors on farm buildings (2) Move livestock to sheltered areas (2) Secure / cover crops susceptible to hail damage (2) Monitor weather warnings / forecasts (2) Ensure drainage systems are clear (2) Store farming equipment under cover (2) Have emergency communication systems ready (2) Emergency evacuation plans (2) **ANY TWO**	(2 x 2)	(4)

1.5

1.5.1 An area of high temperature over the city that decreases towards the rural area / phenomenon that makes urban areas hotter than their surroundings (2)
CONCEPT (1 x 2) (2)

1.5.2 'the global focus of city infrastructure planning has been on cars' (1)
'getting as many people as possible into tall buildings' (1)
'Heat comes from decades of poor planning' (1)
'office blocks overcrowding their occupants' (1)
'tarred roads criss-crossing' (1)
'big cement slabs' (1)
ANY ONE (1 x 1) (1)

1.5.3 Subsiding air at night pushes the warm air closer to buildings in the city which results in more heat being concentrated (in a smaller area) (2)
Weaker convection currents at night concentrates the heat island effect (2)
Subsiding air traps the heat between buildings (2)
ANY ONE (1 x 2) (2)

1.5.4 Heat-related illnesses (heat exhaustion, heat stroke) (2)
Increased mortality rates during heat waves (2)
Respiratory problems due to poor air quality (2)
Dehydration and cardiovascular stress (2)
Increased demand for air conditioning (2)
Higher electricity consumption during peak hours (2)
Strain on power grid / load shedding (2)
Increased energy costs (2)
Increases pollution / acid rain (2)
ANY ONE (1 x 2) (2)

1.5.5 Plant more trees to absorb more carbon dioxide (2)
Establish roof gardens / vertical gardens on high rise buildings (2)
Create parks / greenbelts in the urban area (2)
Reduce carbon emissions in urban areas by making use of solar energy (2)
Reduce carbon emissions in urban areas by making use of wind energy (2)
Replace concrete / tar surfaces with cobble stones which allow infiltration of water and cooling through evaporation (2)
Promote urban farming that will result in more evapotranspiration and cooling of temperatures (2)
Use of public transport / cycling to reduce the number of vehicles on the roads (2)
Reduce the number or vehicles on the road (accept examples) (2)
Use of reflective paint on buildings and roofs (2)
Reducing our carbon footprint through recycling and re-using of products (2)
Modernisation of buildings with greener materials (accept examples) (2)
Implementing energy saving strategies (accept examples) (2)
Encourage the use of hybrid cars which produce no pollution (2)
Use of catalytic converters in motor vehicles (2)
Creation of water features (accept examples) (2)
Green policy to be included in all legislation (2)
Awareness / education campaigns on green policies (2)
Incentives for going green / eco-friendly products (accept examples) (2)
ANY FOUR – ACCEPT QUALIFIED EXAMPLES

(4 x 2) (8)

[60]

QUESTION 2: GEOMORPHOLOGY

2.1

2.1.1 D. (1)

2.1.2 C (1)

2.1.3 F (1)

2.1.4 B (1)

2.1.5 A (1)

2.1.6 E (1)

2.1.7 G (1) (7 x 1) (7)

2.2

2.2.1 E Floodplain(1)

2.2.2 G Levi (1)

2.2.3 C Meander(1)

2.2.4 F Oxbow lake (1)

2.2.5 D Braided Stream (1)

2.2.6 H Waterfall (1)

2.2.7 B Delta (1)

2.2.8 A Rapids (1) (8 x 1) (8)

2.3			
2.3.1	**A** Trellis (1) **B** Dendritic (1)	(2 x 1)	(2)
2.3.2	**A** Alternate layers of hard and soft rock / folded rock structure / undulating rock structure (2) **B** Rock that is uniformly resistant to erosion (2)	(2 x 2)	(4)
2.3.3	The streams flow in relation to the folds of the rock (2) The streams flow over softer rock of the syncline / valley (2) Interfluves are parallel (2) **ANY ONE**	(1 x 2)	(2)
2.3.4	3rd (order) (2)	(1 x 2)	(2)
2.3.5	Higher (1)	(1 x 1)	(1)
2.3.6	(a) Low rainfall will result in a lower drainage density (2) (b) The steep gradient will result in a higher drainage density (2	(2 x 2)	(4)

2.4

2.4.1 When a river is eroding the landscape downwards in response to a lowering/change of its base level (2)
OR
River rejuvenation is a process where rivers (are re-energised to) actively erode downward again (2)
CONCEPT (1 x 2) (2)

2.4.2 A drop in the sea level (1) (1 x 1) (1)

2.4.3 Waterfall / rapids (1) (1 x 2) (2)

2.4.4 Rejuvenated rivers will be ungraded/obstructions along the course as a result of renewed downward erosion (2)
River will now show a multi-concave profile (2)
Temporary base levels of erosion will develop (examples: knickpoint, rapids, waterfall) (2)
Overgraded river as renewed downward erosion now takes place (2)
Vertical erosion downstream of the knickpoint dominates (2)
The balance between erosion and deposition is disturbed (2)
ANY TWO (2 x 2) (4)

2.4.5 Knickpoints can form because of the old erosion level meeting the new erosion levels (2)
The knickpoint retreats upstream (2)
Waterfall can form at the knickpoint due to the lowering along the course of the river (2)
Waterfalls can turn into rapids (2)
Meanders will become more incised and entrenched (erode vertically) (2)
River cuts into the flood plain forming a new flood plain (2)
A valley within a valley forms because of vertical erosion (2)
Valleys with multi-terraced slopes will form (2)
River channel becomes narrower (2)
New floodplain is narrower than the original flood plain (2)
More meanders develop (2)
Formation of a gorge
ANY THREE (3 x 2) (6)

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)

2.5.2 Arsenic copper (1) **(NOT COPPER)**
Lead (1)
Manganese (1)
ANY TWO (2 x 1) (2)

2.5.3 "residents of the affected communities were **not warned** about the potential hazards until two weeks later" (2)

"Conservation managers in the neighbouring 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 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)
Job losses (2) (1 x 2) (2)
ANY ONE

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 regulations) (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)
Impose fines (2)
ANY FOUR, RESPONSES MUST INCLUDE BOTH THE IMPORTANCE AND MEASURES (4 x 2) (8)

[60]

SECTION B

QUESTION 3: GEOGRAPHICAL SKILLS AND TECHNIQUES

3.1 MAP SKILLS AND CALCULATIONS

3.1.1	A (1) (summer)	(1x1)	(1)
3.1.2	B (1) 1080)	(1x1)	(1)
3.1.3	C (1) Glencoe	(1x1)	(1)
3.1.4	(a) 1159m – 1118m= 41m (2)	(1x2)	(2)
	(b) Gentle slope (1)	(1x1)	(1)
	(c) The slope or gradient is steep. (2) It is expensive to build on a steep slope. (2) There is a high risk of landslide, mass movement or erosion. (2) **ANY ONE**	(1x2)	(2)
3.1.5	(a) 337° **(2) OR** 338° (2)	(1x2)	(2)

[10]

3.2 MAP INTERPRETATION

3.2.1	Perennial water or dam (2) Reservoir. (2)	(1x2)	(2)
3.2.2	See table below	(1x2)	(2)
3.2.3	Trees absorb carbon dioxide (CO^2). (2) Trees release oxygen (O^2). (2) **ANY ONE**	(1x2)	(2)
3.2.4	The river is meandering. (2) The gradient is gentle. (2) **ANY ONE**	(1x2)	(2)
3.2.5	Provides water for irrigation (2) Deposition results in fertile soil (2) **ANY ONE**	(1x2)	(2)
3.2.6	The gradient is gentle at **10**. (2) **OR** Flat floodplain (2) The river's velocity or speed is slow. (2) Wider river channel (2) **ANY ONE**	(1x2)	(2)

F (high temperature)	G (low temperature)
Concrete surfaces that retain heat. (2) Dark colour buildings that absorb heat. (2) Few unconstructed (open) spaces (2) Less cultivation (2) **ANY ONE**	Few constructed buildings. (2) Large cultivated land. (2) More open spaces (2)

[12]

3.3	**GEOGRAPHICAL INFORMATION SYSTEMS (GIS)**		
3.3.1	B (1) polygon	(1x1)	(1)
3.3.2	The feature is an excavation, it causes air and land pollution / k land degradation (2)	(1x2)	(2)
3.3.3	Spatial (1) (data)	(1x1)	(1)
3.3.4	Demarcation of an area around a geographical feature or location (2)	(1x2)	(2)
3.3.5	Restrict development on the banks of the river (2) Decrease pollution from the built-up area (2) Reduces eroded soil from entering the river (2) Decreased eutrophication (2) Reduces salinity (2) The natural course/capacity of the river will be maintained (2) Biodiversity of the river will be preserved (2) **ANY ONE**	(1x2)	(2) **[8]** **[30]**
		TOTAL:	**150**