BERGVLIET HIGH SCHOOL

GEOGRAPHY
PAPER 1

GRADE 10 FINAL EXAMINATION

NOVEMBER 2025

MARKS: 150	TIME: 3 HOURS
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MODERATOR:	MS J. KNOTT

MARKING GUIDELINES

SECTION A THE ATMOSPHERE AND GEOMORPHOLOGY

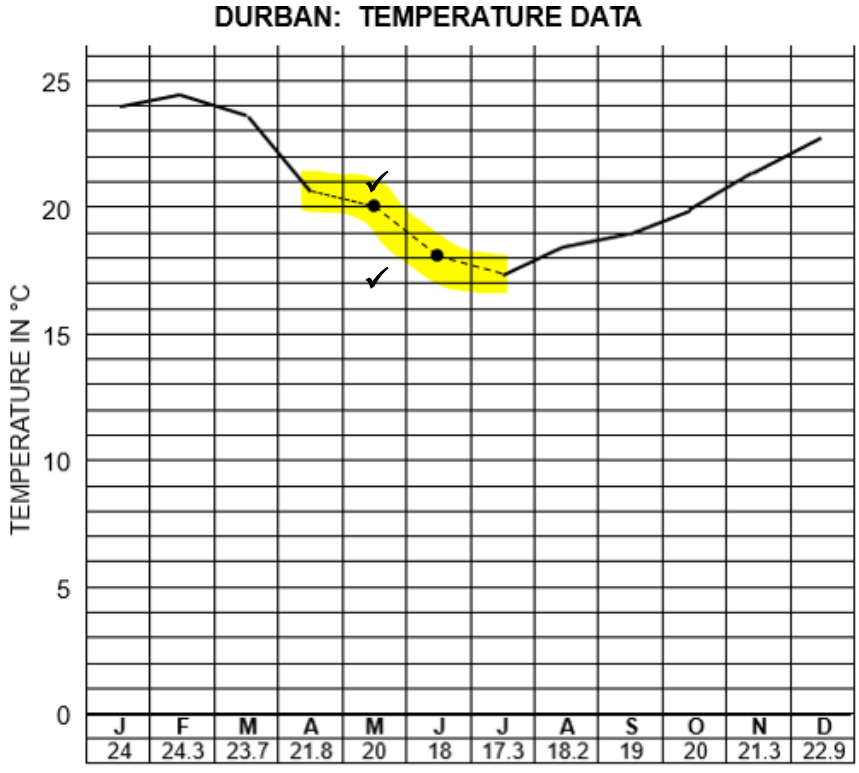
QUESTION 1 THE ATMOSPHERE

1.1.1 **Y** ✓
1.1.2 **Z** ✓
1.1.3 **Y** ✓
1.1.4 **Y** ✓
1.1.5 **Z** ✓
1.1.6 **Z** ✓
1.1.7 **Y** ✓
1.1.8 **Z** ✓ (8 x 1) (8)

1.2.1 D ✓ warm; moist; rise.
1.2.2 B ✓ condensation.
1.2.3 A ✓ Cirrus
1.2.4 B ✓ Cumulonimbus
1.2.5 A ✓ summer
1.2.6 B ✓ (ii), (iii) and (iv)
1.2.7 D ✓ (7 x 1) (7)

1.3.1 February ✓ (1 x 1) (1)

1.3.2



(2 x 1) (2)

1.3.3 Mean = $\frac{250.5}{12}$ ✓ (method) = **20.875** ✓ °C

[**NB**: Accept 20.88 / 20.87 / 20.9] (2 x 1) (2)

1.3.4 Indian Ocean has a **warm** (Agulhas) **current**. ✓✓
Air coming off ocean increases/**raises the temperature**. ✓✓
Air reaching Durban **increases the chances of rainfall**. ✓✓ (3 x 2) (6)

1.3.5 Durban has **moderate temperatures** (not to hot or not too cold) but Johannesburg has temperature **extremes**. ✓✓

Johannesburg has a **large temperature range** whereas Durban has a **small range.** ✓✓ (2 x 2) (4)

1.4.1 **Poor** ✓ (1 x 1) (1)

1.4.2 Ethiopia: **drought** ✓
Puerto Rico: **hurricane** ✓

[**NB**: If listed in order without country, award full marks] (2 x 1) (2)

1.4.3 **Flooding** covered streets. ✓✓
Homes were destroyed. ✓✓ (2 x 2) (4)

1.4.4 Increased **hunger/famine**. ✓
Increased **poverty**. ✓
Decrease in the quality of life.
Increased **ill-health**.
Decreases productivity (work; school).
Potential **loss of life**. (2 x 1) (2)

1.4.5 **Reduce greenhouse gas emissions**. ✓✓
Use renewable energy sources (Accept examples). ✓✓
Decrease deforestation/ increase afforestation. ✓✓
Recycling/reduce waste.
Reduce the burning of fossil fuels.
Use public transportation as opposed to private vehicle/**climate-friendly transport**.
Be more **energy efficient**/use electricity sparingly (accept examples).
Practice sustainable agriculture (accept examples).
Creating **awareness/educating** the public about climate change.
Charging **carbon tax** (especially companies).
(3 x 2) (6)

1.5.1 **Cyclonic** ✓ rain (1 x 1) (1)

1.5.2



✓✓ (1 x 2) (2)

1.5.3 **Cold and warm air meet** at the front. ✓
Warm air rises up the front. ✓
Rising air cools down. ✓
Clouds/condensation form that produce rain. ✓ (4 x 1) (4)

1.5.4 Tourism to WC is **seasonal**.
Fewer tourists arrive during winter.
Hotel rooms/flights cheaper (encourages domestic tourism).
Outdoor activities will be limited (more indoor activities).
Jobs/employment is seasonal.
Reduced tourist spend/income. (4 x 2) (8)

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QUESTION 2 GEOMORPHOLOGY

2.1.1	**E** ✓	Igneous	
2.1.2	**H** ✓	Sedimentary	
2.1.3	**A** ✓	Metamorphic	
2.1.4	**B** ✓	Crust	
2.1.5	**G** ✓	Inner core	
2.1.6	**I** ✓	Mantle	
2.1.7	**F** ✓	Batholith	
2.1.8	**D** ✓	Laccolith	(8 x 1) (8)

2.2.1 Folding ✓
2.2.2 Syncline ✓
2.2.3 Symmetrical ✓
2.2.4 Tension ✓
2.2.5 Fault ✓
2.2.6 Western ✓
2.2.7 Eurasian ✓ (7 x 1) (7)

2.3.1 '… **continents moved over time'** ✓

'… **continental landmasses were 'drifting' across Earth'**
'… **Earth's continents were once part of an enormous, single landmass that over time drifted apart'** (1 x 1) (1)

2.3.2 **Pangaea** ✓
250 million years ago ✓ (2 x 1) (2)

2.3.3 **Africa** ✓
South America ✓
India (Indian sub-continent)
Australia
Antarctica (2 x 1) (2)

2.3.4 **Crust is made up of plates** (smaller parts). ✓✓
Solid **crust floats on the more liquid mantle**. ✓✓ (2 x 2) (4)

2.3.5 **Continents (coastlines) fit together like jigsaw puzzle**. ✓✓
Similar plant and animal life across continents. ✓✓
Similar rock formations found across continents. ✓✓
Fossil remains of Lystrosaurus found on multiple continents.
Matching glacial deposits (Brazil and West Africa).
Similar coal deposits across continents. (3 x 2) (6)

2.4.1 **Epicentre** ✓ (1 x 1) (1)

2.4.2 **Richter** ✓ (1 x 1) (1)

2.4.3 The **epicentre** was located **on the ocean floor**. ✓✓
The **earthquake** in Japan **occurred under the sea**. (1 x 2) (2)

2.4.4 **Loss of life** (deaths). ✓
People went missing. (1 x 1) (1)

2.4.5 **Early warning systems**. ✓✓
Evacuation of people **to higher ground**. ✓✓
Higher breakwaters should be constructed.
Faster emergency response required. (2 x 2) (4)

2.4.6 **Fewer tourists** (tourist income) to Japan. ✓✓
Disruption of trade (domestic and international). ✓✓
Difficulty in transporting labourers/ workers (**loss of productivity**). (2 x 2) (4)

2.4.7 Japan has **wealth/money** (**MEDC**; **developed**). ✓✓
Better prepared for natural disasters (due to regular occurrence).
Humanitarian aid would have been offered by other countries.
Many people were involved in the restoration (army). (1 x 2) (2)

2.5.1 **Stratovolcanoes** ✓ (1 x 1) (1)

2.5.2 **21** ✓ (1 x 1) (1)

2.5.3 **Ring of Fire** ✓
<u>Edge</u> of Pacific Ocean/Plate (1 x 1) (1)

2.5.4 **Loss of life**. ✓✓
Destruction of homes. ✓✓
Damage to other forms of infrastructure.
Loss of natural vegetation.
Air pollution / reduced air quality.
Damming of rivers by lava. (2 x 2) (4)

2.5.5 Volcanic material creates **fertile soil** (for agriculture). ✓✓
Volcanoes heat the water that comes from **hot water springs**. ✓✓
Magma **moves diamonds closer to earth's surface** (makes mining easier). ✓✓
Heat from earth can be used to create **geothermal energy**. ✓✓
Volcanoes are **tourist attractions** (tourist income).
Ash/gas that erupts from volcano can contribute to a **cooler atmosphere**. (4 x 2) (8)

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TOTAL SECTION A: 120

SECTION B

QUESTION 3 GEOGRAPHICAL SKILLS AND TECHNIQUES

3.1 MAP SKILLS AND CALCULATIONS

3.1.1 **2430BB** ✓ (1 x 1) (1)

3.1.2 **D** ✓ 5 (1 x 1) (1)

3.1.3 Real length = **2.05** ✓ km
Breadth = **1.85** ✓ km

Area = **3.7925** ✓ km²

[NB: Accept rounded-off answers] (3 x 1) (3)

3.1.4 **13** ✓ years (1 x 1) (1)

3.1.5 Total change = 13 years x **2'** ✓ = **26' westwards** ✓ (2 x 1) (2)

3.1.6 Magnetic Declination = 15° 52' **+** ✓ 26'
= **16° 18' West of True North** ✓ (2 x 1) (2)

3.2 MAP INTERPRETATION

3.2.1 **C** ✓ sports field (1 x 1) (1)

3.2.2 **C** ✓ summer (1 x 1) (1)

3.2.3 **June** ✓ (1 x 1) (1)

3.2.4 **20** ✓ **mm** ✓ (2 x 1) (2)

3.2.5 **Water tower** ✓
Reservoir ✓ (2 x 1) (2)

3.2.6 **A = 8** ✓
B = 7 ✓ (2 x 1) (2)

3.2.7 **7** ✓
Contour lines are close together. ✓✓ (1 + 2)(3)

3.3 GEOGRAPHICAL INFORMATION SYSTEMS

3.3.1 **People** ✓
Procedure/method (1 x 1) (1)

3.3.2 **Collection of data**. ✓✓
Inputting data into GIS
Analysing data.
Maintaining/updating data base.
Uses data to **make decisions/problem solve**. (1 x 2) (2)

3.3.3 **Vector** ✓ (1 x 1) (1)

3.3.4 **B** ✓ line (1 x 1) (1)

3.3.5 **Attribute** ✓ (1 x 1) (1)

3.3.6 GIS identified various layers relevant to location (**data layering**). ✓✓
Settlement layer (close to people/patients).
Transport layer (for ease of access).
Space available for future expansion.
Existing healthcare infrastructure (complementary/competing) (1 x 2) (2)

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TOTAL SECTION B: 30

GRAND TOTAL: 150