BERGVLIET HIGH SCHOOL

GEOGRAPHY
PAPER 2

GRADE 10 FINAL EXAMINATION

NOVEMBER 2025

MARKS: 150	TIME: 3 HOURS
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MARKING GUIDELINES

SECTION A POPULATION GEOGRAPHY AND WATER RESOURCES

QUESTION 1 POPULATION GEOGRAPHY

1.1.1 **C** ✓ Population
1.1.2 **F** ✓ Population Density
1.1.3 **D** ✓ Population Distribution
1.1.4 **H** ✓ Life Expectancy
1.1.5 **A** ✓ Literacy Rate
1.1.6 **I** ✓ Birth Rate
1.1.7 **B** ✓ Mortality Rate
1.1.8 **G** ✓ Fertility Rate (8 x 1) (8)

1.2.1 **D** ✓ Gauteng
1.2.2 **C** ✓ There are more young children in S.A. than elderly people.
1.2.3 **B** ✓ 30.89
1.2.4 **C** ✓ (ii) and (iii)
1.2.5 **B** ✓ decreasing; decreasing
1.2.6 **C** ✓ Inflation (cost of living)
1.2.7 **A** ✓ Improved access to health care (7 x 1) (7)

1.3.1 **Asia** ✓ (1 x 1) (1)

1.3.2 **Brazil** ✓ (1 x 1) (1)

1.3.3 **Africa** ✓ (1 x 1) (1)

1.3.4 **Shortage of living space**. ✓✓
Decreased agricultural land. ✓✓
Increased pollution/litter (Accept examples).
Over-exploitation of resources (water; soil; trees). (2 x 2) (4)

1.3.5 **Girls get married at a young age** (Accept examples of cultural norms). ✓✓
Lack of use/knowledge of **contraception**. ✓✓
Poor families have more children to help support family.
High sex drive.
Many young adults in the population. (2 x 2) (4)

1.3.6 Widespread **family planning**/access to contraception. ✓✓
Educating on the value of smaller families. ✓✓
Voluntary/free **sterilisation**.
Incentives (especially financial) to have smaller families. (2 x 2) (4)

1.4.1 Gender/**gender structure**/male and female. ✓
Age structure/age groups ✓ (2 x 1) (2)

1.4.2 **8** ✓ million (1x 1) (1)

1.4.3 Pyramid has a **broad base**. ✓✓
Highest number of people in age group under 5 (1 x 2) (2)

1.4.4 Economically active are **working adults**/adults earning an income. ✓✓
Economically inactive are **retirees and scholars** (not working/earning). ✓✓ (2 x 2) (4)

1.4.5 **4.6** ✓ million (1 x 1) (1)

1.4.6 $\text{Dependency Ratio} = \frac{\mathbf{52.7}\ ✓}{\mathbf{50.5}\ ✓} \text{ x } 100$ = **104.36** ✓ %
(3 x 1) (3)

1.4.7 There are **104.36 dependents for every 100 economically active people**. ✓✓
Every **1 working adult must support 1.0436 dependents**.
Relatively **low number of dependents per working adult**. (1 x 2) (2)

1.5.1 **Rural-urban migration** ✓ (1 x 1) (1)

1.5.2 The **hand/finger is pushing** the stick man. ✓✓
Man is showing reluctance/unwillingness to migrate. (1 x 2) (2)

1.5.3 Possibility of better/more **employment opportunities**. ✓✓
Higher paying jobs/income.
Greater **variety of job opportunities**. (2 x 2) (4)

1.5.4 **Poverty alleviation**. ✓✓
Job/**employment opportunities**. ✓✓
Education/skills training. ✓✓
Better housing/opportunity to own property/land. ✓✓
Improved **access to medical care**/health facilities.
Better **access to basic services** (water; electricity).
Access to **recreational/sporting facilities**. (4 x 2) (8)

[60]

QUESTION 2 WATER RESOURCES

2.1.1 Dams ✓
Rivers ✓ (2 x 1) (2)

2.1.2 Namibia ✓ (1 x 1) (1)

2.1.3 Atlantic ✓ (1 x 1) (1)

2.1.4 Gariep ✓

2.1.5 Tugela ✓

2.1.6 Western ✓

2.1.7 Limpopo ✓ (4 x 1) (4)

2.2.1	**Z**	✓	rainfall
2.2.2	**Y**	✓	east to west
2.2.3	**Z**	✓	Northern Cape
2.2.4	**Z**	✓	scarcity
2.2.5	**Z**	✓	treatment
2.2.6	**Y**	✓	desalination
2.2.7	**Z**	✓	grey (7 x 1) (7)

2.3.1 **Department of Water Affairs** ✓
National Government (government)
Water Boards
Municipalities (1 x 1) (1)

2.3.2 **Prolonged** (longer) **droughts**. ✓
Altered (changed) **precipitation patterns**. ✓ (2 x 1) (2)

2.3.3 **Crop losses**/failure/lower yields. ✓✓
Loss of income/reduced profitability.
Job losses/increased unemployment (due to loss of income/profit).
Added expense to import/move water from other countries/areas. (1 x 2) (2)

2.3.4 Industry produces **toxic waste** and by-products. ✓✓
Toxins seep into ground and **contaminates ground water**. ✓✓
Toxins are carried into rivers by surface run-off.
Smoke from industry mixes with rain (**acid rain**). (2 x 2) (4)

2.3.5 **Shower** instead of taking a bath. ✓✓
Fix leaking taps/pipes. ✓✓
Don't keep water running when brushing teeth (accept other examples). ✓✓
Use **buckets of water to wash cars**/windows instead of hose pipe.
Only water garden at sunrise and sunset.
Harvest rainwater (using jo-jo tanks for example).
Recycle grey water for irrigation.
Only **run dishwasher/washing machine with full loads**.
Place a **brick in toilet cistern** (to replace volume).
Only flush the toilet when necessary. (3 x 2) (6)

2.4.1 To move/**transfer water from one river/drainage basin to another**. ✓
Water is moved from an **area of oversupply and low demand** ✓
to areas with **low supply but high demand for water.** ✓ (3 x 1) (3)

2.4.2 **Lesotho** ✓ (1 x 1) (1)

2.4.3 **Muela** ✓ Hydropower Station (1 x 1) (1)

2.4.4 a) **Delivery tunnels move water** from one dam/hydropower station to another dam/hydrostation. ✓✓ (1 x 2) (2)

b) **Dams store water** (either as transfer point or at start/end of tunnels). ✓✓ (1 x 2) (2)

2.4.5 The additional water supplies many homes (**domestic use**).
Water is used extensively in **industry**.
Mining in the Gauteng is heavy dependent on water (helps productivity).
Agricultural activities in Gauteng benefit from the extra water.
Water supply contributes to **GDP growth/income/job creation**. (3 x 2) (6)

2.5.1 **55 ✓ %** (1 x 1) (1)

2.5.2 **Evaporates** ✓ (1 x 1) (1)

2.5.3 **Rural** ✓ (1 x 1) (1)

Flooding is more likely to happen in an urban area (city) than in a rural area.

2.5.4 Flooding occurs when a river/**river channel can no longer contain the water**, **and overflows onto its banks**. ✓✓
Flooding occurs when **land that is normally not covered with water, has water covering it.**

[Concept] (1 x 2) (2)

2.5.5 Urban areas have **more impermeable ground surfaces** (tar; concrete). ✓✓
Urban areas have **greater amounts of surface run-off**.
Urban areas have **less infiltration due to artificial surfaces**. (1 x 2) (2)

2.5.6 Social Impact
Damage to homes/property. ✓✓
Loss of possessions (can increase poverty). ✓✓
Psychological **stress** (anxiety linked impact of flooding).
Increase in **water-borne diseases** (health challenges).
Displacement.

Management
Create **flood defences/sandbagging**. ✓✓
Early warning/detection. ✓✓
Avoid developing on the floodplain/too close to coast.
Keep stormwater drains clear of litter and vegetation.
Create **green belts that can absorb excess rain water**.
Maintain wetlands (they absorb/store water).
Food and shelter for displaced residents.

[**NB**: At least ONE social impact and ONE strategy needed]. (4 x 2) (8)

[60]

TOTAL SECTION A: 120

SECTION B

QUESTION 3 GEOGRAPHICAL SKILLS AND TECHNIQUES

3.1 MAP SKILLS AND CALCULATIONS

3.1.1 **D** ✓ 26° east longitude. (1 x 1) (1)

3.1.2 **B** ✓ Free State (1 x 1) (1)

3.1.3 **B** ✓ 5 (1 x 1) (1)

3.1.4 a) 27° **54** ✓' 28" S
b) 26° 44' **25** ✓" E (2 x 1) (2)

3.1.5 **3 m** ✓ (1 x 1) (1)

3.1.6 Real Distance = **10 cm** ✓ x 100 = **1 000** ✓ m

[Accept: 11 cm 1 100] (2 x 1) (2)

3.1.7 $\text{Average Gradient} = \frac{3}{1000}$ ✓ **= 1 : 333.33** ✓

[Accept: $\frac{3}{1100}$ **= 1 : 366.67**] (2 x 1) (2)

3.2 MAP INTERPRETATION

3.2.1 **A4** ✓ (1 x 1) (1)

3.2.2 **Built-up area** in A4. ✓✓
Settlement/suburb/neighbourhood in A4. (1 x 2) (2)

3.2.3 **Fertile soil**. ✓✓
Access to **water**. ✓✓
Transport infrastructure.
Access to **electricity**.
Basic services (including homes) (2 x 2) (4)

3.2.4 **Farming/agriculture** ✓ (1 x 1) (1)

3.2.5 **River** ✓
Dam ✓
Reservoir (2 x 1) (2)

3.2.6 **Water pollution** (toxins/fertilisers can get into water). ✓✓
Eroded soil can end up in water sources. (1 x 2) (2)

3.3 GEOGRAPHICAL INFORMATION SYSTEMS (GIS)

3.3.1 **B** ✓ (1 x 1) (1)

3.3.2 **A** ✓ (1 x 1) (1)

3.3.3 **Satellite** ✓ (1 x 1) (1)

3.3.4 **D** ✓ (1 x 1) (1)

3.3.5 Image **D is clearer**. ✓✓
Features are more easily identified on D. (1 x 2) (2)

3.3.6 **Lots of pixels**/grid cells. ✓✓
Small pixels/grid cells. (1 x 2) (2)

[30]

TOTAL SECTION B: 30

GRAND TOTAL: 150