

# SMARTWIZ

## GRADE10 GEOGRAPHY EXAM

**MARKS: 100**

| MARKS |  |
|-------|--|
|       |  |

**TIME: 2 hours**

**SCHOOL** \_\_\_\_\_

**CLASS (e.g. 4A)** \_\_\_\_\_

**SURNAME** \_\_\_\_\_

**NAME** \_\_\_\_\_

### Instructions for Learners:

- Read all the instructions carefully before you begin the exam.
- Write your name and learner number clearly on the answer sheet/booklet.
- Answer all the questions unless otherwise instructed.
- Show all your work/calculations where applicable.
- Write neatly and legibly.
- Use only blue or black ink. *Do not use correction fluid or tape.*
- No electronic devices (calculators, phones, etc.) are allowed unless explicitly permitted.
- Raise your hand if you have any questions.
- Do not talk to other learners during the exam.
- Any form of cheating will lead to disqualification.

**This test consists of 6 pages including the cover page.**

**SECTION A: MULTIPLE CHOICE (10 × 1 = 10 marks)**

Choose the correct answer and write only the letter (A-D) next to the question number.

1.1 Which soil type is most suitable for growing vineyards?

- A. Sandy soil
  - B. Clay soil
  - C. Loam soil
  - D. Peaty soil
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1.2 What is the main cause of desertification?

- A. Afforestation
  - B. Overgrazing
  - C. Urbanization
  - D. Mining
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1.3 Which ocean current affects the climate of the Western Cape?

- A. Benguela Current
  - B. Agulhas Current
  - C. Gulf Stream
  - D. Labrador Current
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1.4 What term describes a tropical cyclone that forms in the Indian Ocean?

- A. Hurricane
  - B. Tornado
  - C. Typhoon
  - D. Cyclone
- 

1.5 Which of the following is a major renewable energy source?

- A. Coal
  - B. Natural gas
  - C. Wind
  - D. Uranium
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1.6 The term 'urbanization' refers to:

- A. The growth of rural areas
- B. The increase in the number of people living in cities

- C. The process of planting trees  
D. Movement of animals to cities
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1.7 Which of the following best explains the greenhouse effect?

- A. Cooling of Earth's atmosphere by water vapor  
B. Trapping of heat by gases in the atmosphere  
C. Absorption of ultraviolet rays by the ozone layer  
D. Reflection of sunlight by ice caps
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1.8 What is the name of the process where water changes from a liquid to a gas?

- A. Condensation  
B. Evaporation  
C. Precipitation  
D. Transpiration
- 

1.9 Which country has the largest land area in Africa?

- A. Egypt  
B. Nigeria  
C. Algeria  
D. South Africa
- 

1.10 The Great Escarpment in South Africa is an example of:

- A. A volcanic mountain  
B. A fault scarp  
C. A plateau edge  
D. A river valley
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## SECTION B: MATCHING (5 × 1 = 5 marks)

Match Column A with Column B by writing the correct letter next to the number.

| Column A               | Column B                                 |
|------------------------|--|
| 2.1 Deforestation      | A. Moving from rural to urban areas      |
| 2.2 Population density | B. The layer of gases surrounding Earth  |
| 2.3 Urban migration    | C. Soil made up of organic material      |
| 2.4 Atmosphere         | D. Removal of trees                      |
| 2.5 Humus              | E. Number of people per square kilometre |

- 2.1 \_\_\_\_\_
  - 2.2 \_\_\_\_\_
  - 2.3 \_\_\_\_\_
  - 2.4 \_\_\_\_\_
  - 2.5 \_\_\_\_\_
- 

### SECTION C: TRUE OR FALSE (5 × 1 = 5 marks)

Write TRUE or FALSE. If false, write the correct statement.

3.1 The ozone layer protects Earth from harmful UV rays.

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3.2 Renewable energy sources include coal and oil.

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3.3 The equator passes through South Africa.

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3.4 Agriculture can be negatively affected by soil erosion.

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3.5 A delta is formed at the source of a river.

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### SECTION D: SHORT QUESTIONS (40 marks)

4.1 Define the term 'climate change'. (2)

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4.2 List three effects of urbanization on the environment. (3)

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4.3 Describe the water cycle, including at least four stages. (6)

4.4 Explain how mining activities impact the environment. Provide two negative effects. (4)

4.5 What are the benefits of using renewable energy sources? List three benefits. (3)

### **SECTION E: ESSAY (40 marks)**

**Answer ONE of the following:**

#### **QUESTION 5:**

Discuss the causes, effects, and solutions to soil erosion in South Africa. Include examples in your answer.

**OR**

#### **QUESTION 6:**

Explain the impact of climate change on human settlements and natural ecosystems. Include how communities can adapt to these changes.

**TOTAL: 100 MARKS**



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### SECTION A: MULTIPLE CHOICE ( $10 \times 1 = 10$ marks)

- 1.1 C. Loam soil
- 1.2 B. Overgrazing
- 1.3 A. Benguela Current
- 1.4 D. Cyclone
- 1.5 C. Wind
- 1.6 B. The increase in the number of people living in cities
- 1.7 B. Trapping of heat by gases in the atmosphere
- 1.8 B. Evaporation
- 1.9 C. Algeria
- 1.10 C. A plateau edge

### SECTION B: MATCHING ( $5 \times 1 = 5$ marks)

- 2.1 D. Removal of trees
- 2.2 E. Number of people per square kilometre
- 2.3 A. Moving from rural to urban areas
- 2.4 B. The layer of gases surrounding Earth
- 2.5 C. Soil made up of organic material

### SECTION C: TRUE OR FALSE ( $5 \times 1 = 5$ marks)

- 3.1 TRUE
- 3.2 FALSE – Renewable energy sources include solar, wind, hydro, and geothermal (not coal or oil).
- 3.3 FALSE – The equator does NOT pass through South Africa.
- 3.4 TRUE
- 3.5 FALSE – A delta is formed at the mouth of a river, not the source.

### SECTION D: SHORT QUESTIONS (40 marks)

4.1 Climate change is the long-term alteration of temperature and typical weather patterns in a place. (2 marks)

4.2 Effects of urbanization on the environment (any 3):

- Increased pollution (air, water, noise)
- Loss of natural habitats and biodiversity
- Increased demand for resources (water, electricity)
- Traffic congestion and waste management problems (3 marks)

4.3 Water cycle stages (any 4 with description):

- Evaporation: Water changes from liquid to vapor due to heat
  - Condensation: Water vapor cools and forms clouds
  - Precipitation: Water falls to the earth as rain, snow, etc.
  - Collection/Runoff: Water collects in rivers, lakes, oceans
- (6 marks)

4.4 Negative impacts of mining (any 2 effects):

- Soil degradation and erosion
  - Water pollution from chemicals used in mining
  - Habitat destruction and loss of biodiversity
  - Air pollution from dust and emissions
- (4 marks)

4.5 Benefits of renewable energy (any 3):

- Reduces greenhouse gas emissions
  - Sustainable and inexhaustible resource
  - Reduces dependence on fossil fuels
  - Can create jobs and economic growth
- (3 marks)

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**SECTION E: ESSAY (40 marks)**

**QUESTION 5:** Causes of soil erosion: deforestation, overgrazing, poor farming practices, heavy rains, wind.

Effects: loss of fertile soil, reduced agricultural productivity, sedimentation of rivers, habitat loss.

Solutions: reforestation, contour ploughing, terracing, controlled grazing, conservation farming.

**OR**

**QUESTION 6:** Impact of climate change: increased temperatures, droughts, flooding, loss of biodiversity, impacts on agriculture and water supply.

Adaptation: use of drought-resistant crops, water conservation methods, disaster preparedness, sustainable land use planning, community education.

(40 marks for content, explanation, examples, and structure)

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**TOTAL: 100 MARKS**