

SMARTWIZ

GRADE11 GEOGRAPHY EXAM

MARKS: 100

TIME: 2 HOURS

SCHOOL _____

CLASS (eg. 4A) _____

SURNAME _____

NAME _____

MARKS	
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Instructions for Learners:

- Read all instructions carefully before you begin the exam.
- Write your full name and student number clearly on the answer sheet/book.
- Answer all questions unless otherwise instructed.
- Show all your work/calculations where necessary.
- Write neatly and clearly.
- Use only a blue or black pen. Do not use correction fluid or tape.
- Electronic devices (calculators, cell phones, etc.) are not allowed unless explicitly permitted.
- Raise your hand if you have any questions.
- Do not talk to other learners during the exam.
- Any form of dishonesty will result in immediate disqualification from the exam.

This exam consists of five pages, including the cover page.

QUESTION 1: WEATHER AND CLIMATE – TROPICAL CYCLONES (15 MARKS)

1.1 What is a tropical cyclone?

_____ (2)

1.2 Name the **minimum sea surface temperature** needed for a tropical cyclone to form.

_____ (1)

1.3 Tropical cyclones are known by different names in different regions.

What are they called in:

a) The Atlantic Ocean: _____ (1)

b) The Indian Ocean: _____ (1)

1.4 Name **three conditions** required for the formation of a tropical cyclone.

1. _____
2. _____
3. _____ (3)

1.5 In which months do tropical cyclones most often occur in the southern hemisphere?

_____ (1)

1.6 Explain **two impacts** of a tropical cyclone on people and infrastructure.

1. _____
2. _____ (4)

1.7 What is the eye of a cyclone?

_____ (2)

QUESTION 2: FLUVIAL PROCESSES (20 MARKS)

2.1 Define the term **erosion**.

_____ (2)

2.2 List any **two types of erosion** caused by a river.

1. _____
2. _____ (2)

2.3 State whether each of the following features is formed by erosion or deposition:

a) River cliff: _____

b) Meander: _____

c) Oxbow lake: _____

d) Delta: _____ (4)

2.4 Explain how a meander becomes an oxbow lake.

_____ (4)

2.5 Describe **two ways** human activity can increase river erosion.

1. _____

2. _____ (4)

2.6 Identify one method used to manage flooding in river systems.

_____ (1)

2.7 State one advantage and one disadvantage of building a dam.

Advantage: _____ (1)

Disadvantage: _____ (1)

QUESTION 3: POPULATION GEOGRAPHY (20 MARKS)

3.1 What is population density?

_____ (2)

3.2 Study the following data:

Country	Population	Land Area (km ²)
Country A	60 million	1,000,000
Country B	10 million	50,000

Calculate the population density for each:

a) Country A: _____ people/km² (2)

b) Country B: _____ people/km² (2)

3.3 Which country is more densely populated? _____ (1)

Give a reason for your answer: _____ (1)

3.4 State **two factors** that influence population distribution.

1. _____

2. _____ (2)

3.5 What is urbanisation?

_____ (2)

3.6 Explain **two problems** associated with rapid urbanisation.

1. _____
2. _____ (4)

3.7 Give one way governments can reduce the negative impacts of overpopulation.

_____ (2)

QUESTION 4: MAPWORK – CONTOURS, DIRECTION & INTERPRETATION (25 MARKS)

Use the topographic map extract provided



4.1 What is the contour interval of the map?

_____ (1)

4.2 Identify the landform in block C4.

_____ (2)

4.3 Calculate the direct distance in kilometres between the railway station in E2 and the hospital in E4. Show all working.

_____ (4)

4.4 What is the bearing from the trig beacon in D5 to the school in D3?

_____ (2)

4.5 Identify **two man-made features** and **two natural features** visible on the map.

Man-made:

1. _____
2. _____

Natural:

1. _____
2. _____ (4)

4.6 Describe the slope between the hilltop in A3 and the river in A5.

_____ (2)

4.7 What is the altitude of the highest point on the map?

_____ (1)

4.8 Give one use of orthophoto maps in rural development.

_____ (2)

4.9 State **two indicators** on the map that suggest the area experiences human settlement.

1. _____
2. _____ (2)

4.10 What is the difference between a **topographic map** and an **orthophoto map**?

_____ (3)

✓ TOTAL: 100 MARKS

MEMO**QUESTION 1: WEATHER AND CLIMATE – TROPICAL CYCLONES (15 MARKS)**

1.1 A tropical cyclone is a low-pressure system that forms over warm oceans and causes strong winds, heavy rainfall, and storm surges. (2)

1.2 26°C or higher (1)

1.3

a) Hurricane (1)

b) Cyclone (1)

1.4

- Warm ocean temperatures
 - High humidity
 - Low wind shear
- (Any $3 \times 1 = 3$)

1.5 November to April (1)

1.6

1. Destruction of homes and infrastructure
 2. Flooding that disrupts transport and causes loss of life
- (Any relevant $2 \times 2 = 4$)

1.7 The calm, clear center of a cyclone where wind speeds are low. (2)

QUESTION 2: FLUVIAL PROCESSES (20 MARKS)

2.1 Erosion is the wearing away of the earth's surface by wind, water, or ice. (2)

2.2

1. Hydraulic action
2. Abrasion / solution / attrition (Any $2 \times 1 = 2$)

2.3

a) Erosion

b) Erosion

c) Erosion and deposition

d) Deposition

$(4 \times 1 = 4)$

2.4 Water flows in a winding path (meander), eroding the outer bank and depositing on the inner bank. Over time, the loop is cut off and forms an oxbow lake. (4)

2.5

1. Deforestation increases runoff and river erosion.
2. Building near riverbanks disrupts natural flow and causes bank collapse.

$(2 \times 2 = 4)$

2.6 Building levees / flood barriers / dams / afforestation / widening channels (Any one valid method) (1)

2.7

Advantage: Provides water supply / hydroelectric power / flood control (1)

Disadvantage: Displacement of people / environmental impact / sediment build-up (1)

QUESTION 3: POPULATION GEOGRAPHY (20 MARKS)

3.1 The number of people per square kilometre of land. (2)

3.2

a) $60 \text{ million} \div 1,000,000 = \mathbf{60 \text{ people/km}^2}$ (2)

b) $10 \text{ million} \div 50,000 = \mathbf{200 \text{ people/km}^2}$ (2)

3.3 Country B (1)

Reason: Higher number of people per square km (1)

3.4

1. Climate
2. Availability of water / jobs / fertile land (Any $2 \times 1 = 2$)

3.5 The movement of people from rural areas to cities. (2)

3.6

1. Overcrowding
2. Pressure on infrastructure / housing shortage / unemployment / pollution (Any $2 \times 2 = 4$)

3.7 Government investment in family planning, rural development, or infrastructure upgrades. (Any valid strategy = 2)

QUESTION 4: MAPWORK – CONTOURS, DIRECTION & INTERPRETATION (25 MARKS)

Note: Answers may vary slightly depending on the actual map extract used.

4.1 Usually 20 metres (based on standard topographic maps unless specified) (1)

4.2 Example: Spur / valley / hill (must match feature in C4) (2)

4.3 Example:

If measured as 5 cm on 1:50 000 map:

$5 \text{ cm} \times 0.5 = \mathbf{2.5 \text{ km}}$ (1 for method, 3 for calculation = 4)

4.4 Use protractor – e.g., **120°** from trig beacon to school (2)

4.5

Man-made: Road, railway, dam

Natural: River, mountain, forest

(2 + 2 = 4)

4.6 Steep / gradual slope (based on contour spacing) (2)

4.7 Highest point: e.g., **980 m** or similar (based on trig beacon or contour) (1)

4.8 Planning of roads, water supply, farming development, settlement layout (Any valid answer = 2)

4.9

1. Buildings

2. Roads or cultivated land

(2 × 1 = 2)

4.10

Topographic: Uses symbols and contours to represent elevation and features

Orthophoto: Aerial photo with map info, more realistic (3)



TOTAL: 100 MARKS