

SMARTWIZ

GRADE 12 GEOGRAPHY EXAM

MARKS: 300

TIME: 3 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.

SECTION A: MULTIPLE CHOICE QUESTIONS

(30 × 1 = 30 MARKS)

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

1. Which process causes the downward movement of weathered rock material?
 - A. Erosion
 - B. Mass wasting
 - C. Deposition
 - D. Sedimentation
-

2. The Köppen climate classification uses which two main factors?
 - A. Temperature and wind
 - B. Rainfall and temperature
 - C. Humidity and soil type
 - D. Elevation and sunlight
-

3. What is the primary reason for the formation of loess deposits?
 - A. Glacial meltwater
 - B. Wind-blown silt
 - C. River sedimentation
 - D. Volcanic ash
-

4. Urban sprawl most commonly results in:
 - A. Increased agricultural land
 - B. Loss of natural habitats
 - C. Reduced traffic congestion
 - D. Decreased pollution levels
-

5. Which factor MOST influences the location of a commercial farm?
 - A. Access to markets
 - B. Availability of minerals
 - C. Distance from the ocean
 - D. Presence of wildlife
-

6. A cirque is a landform associated with:
 - A. Wind erosion
 - B. River deposition

- C. Glacial erosion
 - D. Volcanic activity
-

7. Which of the following is a major consequence of over-irrigation?
- A. Soil salinization
 - B. Deforestation
 - C. Acid rain
 - D. Urbanization
-

8. Which country is known for having the highest urban population growth rate?
- A. Japan
 - B. India
 - C. Nigeria
 - D. Canada
-

9. The term “demographic transition” refers to changes in:
- A. Population size and structure
 - B. Economic development
 - C. Urban land use
 - D. Climate zones
-

10. The Ring of Fire is mainly associated with:
- A. Transform plate boundaries
 - B. Subduction zones
 - C. Continental rift valleys
 - D. Hot spots
-

11. Which human activity is MOST responsible for increased greenhouse gases?
- A. Reforestation
 - B. Fossil fuel combustion
 - C. Wind farming
 - D. Recycling
-

12. What type of settlement pattern is characterized by buildings scattered far apart?
- A. Linear
 - B. Dispersed

- C. Nucleated
 - D. Grid
-

13. Which ocean current is responsible for warming the western coast of Europe?
- A. Labrador Current
 - B. Benguela Current
 - C. Gulf Stream
 - D. Humboldt Current
-

14. The main cause of desertification is:
- A. Overgrazing and deforestation
 - B. Volcanic eruptions
 - C. Tsunamis
 - D. Urban sprawl
-

15. The term “carrying capacity” refers to:
- A. The maximum population an environment can sustain
 - B. The rate of urbanization
 - C. The amount of rainfall an area receives
 - D. The height of a mountain
-

16. Which factor does NOT affect population distribution?
- A. Climate
 - B. Soil fertility
 - C. Latitude
 - D. Internet access
-

17. Which type of volcano is the tallest and most explosive?
- A. Shield volcano
 - B. Cinder cone
 - C. Stratovolcano
 - D. Lava dome
-

18. What is the main purpose of contour ploughing?
- A. To speed up water runoff
 - B. To reduce soil erosion

- C. To increase soil salinity
 - D. To improve urban drainage
-

19. What causes the formation of a delta?
- A. Tectonic uplift
 - B. Sediment deposition at a river mouth
 - C. Volcanic lava flow
 - D. Wind erosion
-

20. Which biome is characterized by permafrost and low-growing vegetation?
- A. Taiga
 - B. Tundra
 - C. Savannah
 - D. Temperate forest
-

21. What is the main reason for rapid urban growth in many developing countries?
- A. Government policies
 - B. Natural disasters
 - C. Rural-urban migration
 - D. Agricultural decline
-

22. The movement of people within a country from one rural area to another is called:
- A. International migration
 - B. Internal migration
 - C. Emigration
 - D. Suburbanization
-

23. Which renewable energy source depends on flowing water?
- A. Solar energy
 - B. Wind energy
 - C. Hydropower
 - D. Biomass
-

24. What type of map shows changes in elevation using lines?
- A. Political map
 - B. Climatic map

- C. Topographic map
 - D. Thematic map
-

25. What is the term for soil being washed away by water or blown away by wind?
- A. Weathering
 - B. Erosion
 - C. Deposition
 - D. Sedimentation
-

26. Which of the following best describes an informal settlement?
- A. Planned housing estate
 - B. Area with poor infrastructure and insecure tenure
 - C. Central business district
 - D. Industrial zone
-

27. Which factor is the main cause of earthquakes?
- A. Volcanic eruption
 - B. Movement along faults
 - C. Flooding
 - D. Tsunamis
-

28. Which of the following is a greenhouse gas?
- A. Oxygen
 - B. Carbon dioxide
 - C. Nitrogen
 - D. Argon
-

29. Which of the following affects the distribution of vegetation?
- A. Elevation
 - B. Latitude
 - C. Soil type
 - D. All of the above
-

30. Which landform is created by river deposition?
- A. Canyon
 - B. Floodplain

- C. Glacier
- D. Mountain

SECTION B: SHORT ANSWER QUESTIONS

(10 × 10 = 100 MARKS)

Answer ALL questions. Write your answers on the lines provided.

31. Explain the process of chemical weathering and give one example of a landform created by this process.

32. Describe three different types of mass movement and their causes.

33. Discuss the role of rivers in shaping landscapes and providing resources for humans.

34. Explain the main causes and effects of urban heat islands.

35. Describe the characteristics of a savannah biome and explain how human activities impact this biome.

36. Explain how climate influences agricultural practices in two different climate zones.

37. Describe the main factors that influence population distribution in mountainous regions.

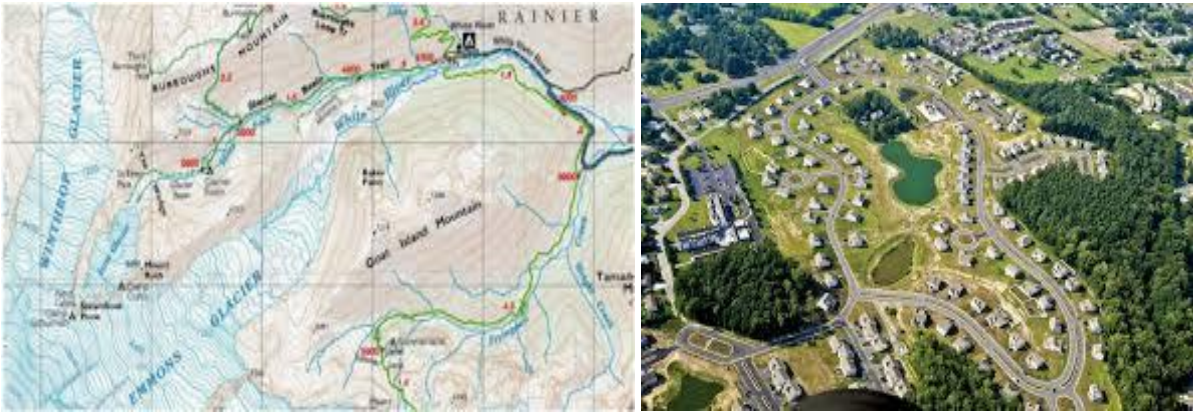
38. Outline the advantages and disadvantages of using nuclear energy as a power source.

39. Discuss the impacts of deforestation on the environment and human populations.

40. Explain the term “sustainable development” and provide two examples of sustainable practices.

SECTION C: DATA AND MAP INTERPRETATION

(5 × 14 = 70 MARKS)
Use the provided topographic map, climate graph, and (provided in exam booklet). Answer ALL questions.



Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (°C)	28	29	28	26	22	18	16	17	20	23	25	27
Rainfall (mm)	120	110	95	70	50	30	20	25	40	65	90	110

41. (14) Describe the relief and drainage pattern visible on the topographic map. Use compass directions and landform terms.

42. (14) Calculate the gradient between Point A (500 m) and Point B (100 m) that are 4 km apart on the map. Show your working.

43. (14) Analyze the climate graph and describe the temperature and rainfall trends throughout the year. Identify the likely climate type.

44. (14) Examine the aerial photo and identify three human-made features and two physical features. Explain how these features interact.

45. (14) Using the synoptic weather chart, identify the weather front types and predict the weather changes expected in the next 24 hours.

SECTION D: ESSAY QUESTIONS

(2 × 50 = 100 MARKS)

Answer TWO of the following essay questions. Each essay should have an introduction, well-developed paragraphs, and a conclusion.

46. **Examine the causes and effects of rural depopulation. Suggest strategies to reduce the negative impacts on rural areas.**

47. **Discuss the importance of water resources for human activities and evaluate the challenges of water management in semi-arid regions.**

48. **Analyze the effects of climate change on biodiversity and ecosystems. Suggest measures to protect vulnerable species.**

49. **Evaluate the impact of industrialization on urban environments. Discuss possible solutions to minimize negative environmental effects.**

[illegible]

End of Exam

TOTAL : 300



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SECTION A: MULTIPLE CHOICE QUESTIONS

(30 × 1 = 30 MARKS)

1. B — Mass wasting
2. B — Rainfall and temperature
3. B — Wind-blown silt
4. B — Loss of natural habitats
5. A — Access to markets
6. C — Glacial erosion
7. A — Soil salinization
8. C — Nigeria
9. A — Population size and structure
10. B — Subduction zones
11. B — Fossil fuel combustion
12. B — Dispersed
13. C — Gulf Stream
14. A — Overgrazing and deforestation
15. A — The maximum population an environment can sustain
16. D — Internet access
17. C — Stratovolcano
18. B — To reduce soil erosion
19. B — Sediment deposition at a river mouth
20. B — Tundra
21. C — Rural-urban migration
22. B — Internal migration
23. C — Hydropower
24. C — Topographic map
25. B — Erosion
26. B — Area with poor infrastructure and insecure tenure
27. B — Movement along faults
28. B — Carbon dioxide
29. D — All of the above
30. B — Floodplain

SECTION B: SHORT ANSWER QUESTIONS

(10 × 10 = 100 MARKS)

Marking guideline example (marks split per content depth and accuracy):

31. Chemical weathering involves the breakdown of rocks by chemical reactions, often involving water and acids (e.g., carbonation, oxidation).

- Example: Karst landscape (caves, sinkholes).

Mark allocation:

- Explanation (5 marks)
- Example and description (5 marks)

32. Mass movement types:

- Landslides (rapid downward movement of rock/soil), caused by gravity and saturation
- Mudflows (fast, water-rich movement)
- Creep (slow, gradual soil movement)

Mark allocation:

- Description of 3 types (7 marks)
- Causes for each (3 marks)

33. Rivers shape landscapes via erosion, transport, and deposition. Provide resources such as water supply, irrigation, transportation, fertile soil on floodplains.

Mark allocation:

- Processes (5 marks)
- Human uses/resources (5 marks)

34. Urban heat islands caused by dense buildings, dark surfaces, reduced vegetation, and waste heat emissions. Effects: higher temperatures, health issues, increased energy use.

Mark allocation:

- Causes (5 marks)
- Effects (5 marks)

35. Savannah: grassland with scattered trees, distinct wet and dry seasons. Human impact includes agriculture, grazing, deforestation.

Mark allocation:

- Biome description (5 marks)
- Human impacts (5 marks)

36. Climate affects crops: e.g., tropical rainforest with high rainfall suits cocoa; arid climates support drought-resistant crops like millet.

Mark allocation:

- Explanation of 2 climate zones (5 marks)
- Agricultural practices examples (5 marks)

37. Population distribution in mountains influenced by altitude, slope steepness, climate, accessibility.

Mark allocation:

- Factors listed and explained (10 marks)

38. Nuclear energy advantages: low greenhouse emissions, high energy output; disadvantages: radioactive waste, risk of accidents.

Mark allocation:

- Advantages (5 marks)
- Disadvantages (5 marks)

39. Deforestation causes loss of biodiversity, soil erosion, climate change, displacement of communities.

Mark allocation:

- Causes (4 marks)
- Effects on environment and humans (6 marks)

40. Sustainable development: meeting present needs without compromising future generations. Examples: crop rotation, urban green spaces.

Mark allocation:

- Definition (5 marks)
- Two examples with explanation (5 marks)

SECTION C: DATA AND MAP INTERPRETATION

(5 × 14 = 70 MARKS)

41. Describe topography: identify hills, valleys, rivers; note relief steepness; compass directions.

Mark allocation:

- Correct landform identification (7 marks)
- Use of compass points and map terms (7 marks)

42. Gradient = (change in elevation/distance) × 100
 = ((500m - 100m) / 4000m) × 100 = (400/4000) × 100 = 10%

Mark allocation:

- Correct formula (5 marks)
- Correct calculation (5 marks)
- Explanation of units (4 marks)

43. Climate graph interpretation: identify wet/dry months, temperature peaks/troughs. Likely climate type based on data (e.g., Mediterranean, tropical, etc.)

Mark allocation:

- Trends (7 marks)
- Climate type with justification (7 marks)

44. Human features: roads, buildings, bridges

Physical features: rivers, hills

Explain interaction (e.g., roads follow river valleys, buildings on flat areas)

Mark allocation:

- Identification (7 marks)
- Explanation of interaction (7 marks)

45. Identify weather fronts (cold/warm/occluded) using chart symbols

Predict weather changes (e.g., temperature drop, rain) in 24 hours

Mark allocation:

- Front identification (7 marks)
- Reasoned weather prediction (7 marks)

SECTION D: ESSAY QUESTIONS

(2 × 50 = 100 MARKS)

Marking guide for essays:

- Introduction (10 marks): Clear thesis and outline
- Body (30 marks): Well-developed arguments with examples, data, case studies
- Conclusion (10 marks): Summarizes and reflects on topic, gives insight/recommendations
- Language, coherence, and structure (up to 5 marks bonus)

46. Causes: mechanization of agriculture, lack of opportunities, urban pull factors

Effects: decline in rural services, aging population

Strategies: rural development programs, improved infrastructure, incentives for young farmers

47. Importance of water for drinking, agriculture, industry

Challenges: scarcity, pollution, overuse

Management: rainwater harvesting, dams, water-saving tech, community education

48. Climate change effects: habitat loss, species extinction, migration shifts

Measures: protected areas, breeding programs, reducing emissions

49. Industrialization effects: air/water pollution, urban congestion, health risks

Solutions: stricter regulations, green tech, improved public transport

TOTAL : 300