THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL OF TANZANIA

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

713 **GEOGRAPHY**

(SUPPLEMENTARY)

Time: 3 Hours. **ANSWER** **Year: 2002**

Instructions

1. This paper consists of sections A, B and C.

2. Answer **all** questions from Section A and **two (2)** questions from each of section B and C.

3. Section A carries **40** marks, Section B and C carry 30 marks each.

4. Cellular phones are **not** allowed inside the examination room.

5. Write your **Examination Number** on every page of your answer booklet

SECTION A (40 Marks)

Answer all questions in this section.

1. Define the term “geographical environment” and explain its two main components.

   The geographical environment refers to the combination of physical and human elements that make up the Earth’s surface and influence human life.

   Its two main components are the physical environment, which includes landforms, climate, vegetation, water bodies, and soils, and the human environment, which consists of settlements, economic activities, infrastructure, and cultural practices.

2. Describe four (4) physical processes that influence the formation of coastal landforms.

   Erosion by waves, currents, and tides wears away rocks and sediments, shaping cliffs, bays, and headlands.

   Deposition occurs when sediments are transported and deposited by waves, forming beaches, spits, and sandbars.

   Longshore drift moves sediment along the coastline, influencing the development of features such as tombolos and barrier islands.

   Tectonic activity can uplift or subside land, changing the coastline and creating cliffs, raised beaches, or coastal terraces.

3. Explain how relief affects rainfall distribution in different parts of Tanzania.

   Mountains force air to rise, cool, and condense, causing orographic rainfall on windward slopes, such as on the slopes of Mount Kilimanjaro.

   Leeward slopes experience rain shadow effects, where descending air is dry, resulting in lower rainfall and semi-arid conditions.

   Lowland areas may receive less rainfall if not exposed to prevailing moist winds, affecting agriculture and vegetation.

Variations in altitude also influence temperature and evaporation rates, modifying local rainfall patterns.

4. (a) What is the difference between weather and climate?

Weather refers to the short-term atmospheric conditions at a particular time and place, such as daily temperature, rainfall, or wind.

Climate refers to the long-term average of weather conditions over a period, typically 30 years or more, in a specific area.

4. (b) Give two (2) reasons why climatology is important to farmers.

Climatology helps farmers plan planting and harvesting based on expected rainfall and temperature patterns.

It allows farmers to select suitable crops and livestock breeds adapted to local climatic conditions, reducing crop failure and losses.

5. Identify four (4) methods used in collecting data during geographical research.

Observation involves directly examining features or processes in the field to record primary information.

Questionnaires and interviews collect information from people about socio-economic, cultural, or environmental aspects.

Remote sensing and satellite imagery provide large-scale and accurate data on land use, vegetation, and environmental changes.

Map analysis uses existing maps to extract information about relief, settlements, transport, and land use patterns.

6. (a) Define soil erosion.

Soil erosion is the process by which the topsoil is removed by agents such as water, wind, or human activity.

6. (b) Explain three (3) causes of soil erosion in agricultural areas.

Deforestation removes vegetation cover that protects soil, increasing vulnerability to rainfall and wind erosion.

Overgrazing by livestock reduces grass cover, weakening the soil structure and increasing runoff.

Improper farming methods, such as plowing along slopes instead of contour lines, accelerate surface runoff and soil loss.

7. Explain four (4) effects of rapid urban growth on the physical environment of cities in Tanzania.

Urban growth increases air and water pollution due to industrial emissions, vehicle exhaust, and untreated sewage.

It leads to loss of green spaces as land is cleared for buildings, reducing urban biodiversity and increasing heat effects.

Rapid construction contributes to soil degradation and flooding when drainage systems are inadequate.

Urban expansion causes pressure on natural resources, including water, energy, and building materials, affecting sustainability.

8. (a) What is a topographical map?

A topographical map is a detailed representation of the Earth's surface, showing natural and human-made features, including elevation, rivers, roads, and settlements.

8. (b) Give three (3) advantages of using topographical maps in geographical studies.

They provide accurate information on elevation and relief, which helps in planning construction, agriculture, and transport routes.

Topographical maps help identify natural features and their spatial relationships, assisting in environmental management and research.

They are useful for field navigation and orientation, enabling students and researchers to locate study sites precisely.

9. Outline the major causes of rural-urban migration in developing nations.

Rural poverty and lack of employment opportunities push people to seek jobs in urban areas.

Better access to education, healthcare, and social services in cities attracts rural populations.

Agricultural challenges, such as land scarcity, drought, or poor soil fertility, force rural inhabitants to migrate.

Urban areas offer opportunities in trade, industry, and services that are not available in rural settings.

10. Explain the importance of studying natural disasters in the Geography curriculum.

Studying natural disasters raises awareness of hazards such as floods, earthquakes, and droughts, and their impacts on human life.

It equips students with knowledge to prepare, respond, and mitigate disaster risks effectively.

Understanding disasters informs planning, construction, and policy decisions to reduce vulnerability.

It encourages research and critical thinking about human-environment interactions and resilience strategies.

SECTION B (40 Marks)

Answer any two (2) questions from this section.

11. (a) Describe the major causes of desertification in Africa.

Overgrazing removes vegetation cover, exposing soil to wind and water erosion.

Deforestation for fuelwood or agriculture reduces tree cover, leading to soil degradation.

Climate variability, such as prolonged droughts, decreases soil moisture and productivity.

Unsustainable farming practices, including over-cultivation, reduce soil fertility and accelerate desertification.

11. (b) Suggest appropriate control measures to reduce the problem.

Planting trees and shrubs (afforestation and reforestation) stabilizes soil and reduces wind erosion.

Adopting sustainable farming practices such as crop rotation and contour farming preserves soil fertility.

Managing grazing by rotational systems prevents overgrazing and vegetation loss.

Water conservation techniques, including rainwater harvesting and small dams, maintain soil moisture and support vegetation growth.

12. Evaluate the contribution of tourism to environmental conservation and community development in Tanzania.

Tourism generates revenue that can fund national parks, wildlife protection, and conservation projects.

It creates employment and income for local communities through hospitality, guiding services, and handicraft sales.

Tourism promotes environmental awareness among locals and visitors, encouraging sustainable practices.

Revenue from tourism can support infrastructure development such as roads, schools, and health services, improving local livelihoods.

13. (a) What is meant by geographical field report?

A geographical field report is a structured document that presents findings, analysis, and conclusions from field investigations or observations.

13. (b) Discuss the elements that should be included in a good report.

Introduction, stating objectives and scope of the study, sets the context.

Methodology describes how data was collected, including tools and procedures used.

Findings and analysis present observations, measurements, and patterns with explanations.

Conclusions summarize key results, while recommendations suggest solutions or further research.

References and appendices provide sources and supplementary data for clarity and verification.

14. Examine how modern technology can enhance the teaching and learning of Geography in secondary schools.

GIS and remote sensing allow students to analyze spatial data and visualize land use, vegetation, and urban growth.

Interactive digital maps and simulations improve understanding of physical processes and complex systems.

Online databases and research tools provide access to global information, enhancing research and learning opportunities.

Multimedia presentations, videos, and virtual field trips engage students and make learning more practical and experiential.

SECTION C (20 Marks)

Answer any two (2) questions from this section.

15. Prepare a lesson plan for teaching the topic “The Solar System” to Form I students.

Lesson Objective: Students will identify planets, the sun, and other components of the solar system and describe their characteristics.

Introduction: Begin with a discussion about night sky observations and what students know about planets.

Main Activities: Use models or diagrams to show planets, moons, and orbits; students participate in arranging planets in order from the sun.

Assessment: Ask students to name planets, describe one characteristic of each, and explain the difference between inner and outer planets.

Conclusion: Recap key points, emphasizing the solar system's structure and its relevance to Earth's environment.

16. Discuss four (4) participatory teaching strategies that can be applied when teaching Physical Geography.

Group discussions encourage students to share observations and interpretations of physical features.

Field trips provide hands-on experience in observing landscapes, rivers, mountains, and soils.

Role-playing or simulations help learners understand processes like erosion, river flow, or volcanic eruptions.

Practical experiments such as water cycle demonstrations or soil testing engage students in active learning.

17. Write a short plan demonstrating how to teach "River Processes" through practical activities.

Lesson Objective: Students will understand erosion, transportation, and deposition in rivers.

Introduction: Ask students to describe a local river and what happens to soil and rocks along it.

Main Activities: Conduct a small-scale experiment using trays, water, and sand to simulate river flow and sediment movement.

Record observations and draw diagrams to illustrate erosion, transportation, and deposition.

Assessment: Students explain each process and identify river features formed in the experiment.

Conclusion: Discuss the implications of river processes on agriculture, settlements, and flood management.

18. Analyze the role of formative assessment in improving students' performance in Geography.

Formative assessment provides ongoing feedback to learners, helping them understand strengths and weaknesses in real-time.

It guides teachers to adjust methods and focus on areas where students struggle.

Formative assessment encourages active participation and reinforces learning through quizzes, observations, and practical exercises.

It ultimately improves mastery of both theoretical knowledge and practical skills, ensuring students are prepared for summative evaluations.