THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL OF TANZANIA

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

713 **GEOGRAPHY**

(SUPPLEMENTARY)

Time: 3 Hours. **ANSWER** **Year: 2003**

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. Describe four (4) ways in which geographical studies contribute to sustainable development.

   Geographical studies help in identifying areas suitable for agriculture, promoting efficient land use without degrading natural resources.

   They aid in planning infrastructure and settlements in ways that minimize environmental impact and reduce vulnerability to disasters.

   Geography provides insights into resource management, ensuring sustainable exploitation of minerals, forests, and water resources.

   It raises environmental awareness among communities and policymakers, encouraging conservation and long-term planning.

2. Explain how vegetation influences the type of soil in a given region.

   Dense vegetation contributes organic matter through leaf litter and decomposition, enriching the soil with nutrients.

   Tree roots stabilize soil, reduce erosion, and improve soil structure and porosity.

   Vegetation affects microclimate by moderating temperature and moisture, influencing soil formation and retention.

   The type of plant species determines the chemical composition of soil, such as acidity or alkalinity, which affects fertility.

3. Define the term “geographical scale of study” and provide two (2) examples.

   Geographical scale of study refers to the spatial extent at which geographical phenomena are examined, from local to global levels.

   An example is a **local scale**, such as studying land use patterns in a single village.

Another example is a **regional scale**, such as analyzing rainfall distribution across East Africa.

4. (a) What is meant by the hydrological cycle?

The hydrological cycle is the continuous movement of water between the atmosphere, land, and oceans through processes such as evaporation, condensation, precipitation, and runoff.

4. (b) Identify and explain two (2) processes involved in this cycle.

Evaporation is the process where water from oceans, lakes, and rivers turns into water vapor due to heat from the sun.

Precipitation occurs when condensed water vapor in clouds falls as rain, snow, sleet, or hail, replenishing surface water and groundwater.

5. Explain four (4) economic activities that depend on relief in East Africa.

Agriculture relies on fertile valley soils and gentle slopes for crop cultivation.

Hydroelectric power generation depends on steep gradients in rivers to drive turbines.

Mining often occurs in mountainous regions where mineral deposits are exposed.

Tourism benefits from scenic landscapes such as mountains, valleys, and escarpments that attract visitors.

6. (a) Define remote sensing.

Remote sensing is the collection of information about the Earth's surface without direct contact, using satellites, aerial photographs, or drones.

6. (b) Mention two (2) advantages of using it in geographical research.

It provides large-scale and accurate data on land use, vegetation, and environmental changes.

It allows researchers to monitor inaccessible or hazardous areas safely and efficiently.

7. Discuss four (4) reasons for uneven population distribution in Tanzania.

Physical factors such as mountains, rivers, and arid zones limit settlement in certain areas.

Economic opportunities attract people to urban centers and fertile agricultural zones.

Infrastructure availability including roads, schools, and hospitals encourages settlement in developed areas.

Historical and cultural factors influence population distribution, as some regions were historically settled due to trade routes or political centers.

8. Explain how rivers are useful to human beings and the environment.

Rivers provide water for domestic, agricultural, and industrial use.

They support transportation, linking communities and facilitating trade.

Rivers sustain aquatic ecosystems, maintaining biodiversity.

They contribute to energy production through hydroelectric power and provide fertile soils through periodic flooding.

9. State and explain four (4) human factors influencing climate modification.

Urbanization increases heat retention due to concrete and asphalt surfaces, creating urban heat islands.

Deforestation reduces transpiration and canopy cover, affecting local rainfall and temperature.

Industrial activities emit greenhouse gases that influence global and local climate patterns.

Agricultural practices, including irrigation and land clearing, modify local humidity and temperature conditions.

10. Explain the significance of practical Geography in shaping learners' problem-solving skills.

Practical Geography teaches students to observe, analyze, and interpret real-world data systematically.

It develops critical thinking by requiring learners to evaluate evidence and draw conclusions.

Students learn to propose solutions to environmental and spatial problems based on their observations.

Practical exercises foster teamwork, planning, and technical skills necessary for informed decision-making in real-life situations.

SECTION B (40 Marks)

Answer any two (2) questions from this section.

11. (a) Identify the main features of the equatorial climate.

Equatorial climates have high temperatures throughout the year, generally above 25°C.

They experience high and evenly distributed rainfall, often exceeding 2000 mm annually.

Humidity is consistently high due to abundant moisture from forests and precipitation.

There is minimal seasonal variation, with small temperature and daylight changes.

11. (b) Analyze how this climate type affects human settlement.

High rainfall and fertile soils encourage dense agricultural settlements and support food crops like bananas and cocoa.

Excessive rainfall may lead to flooding, limiting construction and requiring elevated housing.

High humidity and heat can increase disease prevalence, affecting settlement patterns and health infrastructure.

Dense forests may hinder transport and communication, concentrating settlements along rivers or cleared areas.

12. Discuss the role of geography in the management of natural resources in Tanzania.

Geography helps locate and assess resources such as minerals, forests, water, and arable land.

It guides sustainable extraction practices to prevent overexploitation and environmental degradation.

Geographical knowledge supports zoning, planning, and conservation efforts to balance resource use with ecological protection.

It aids policymakers and communities in implementing programs for renewable energy, irrigation, and reforestation.

13. (a) Outline the steps involved in drawing a cross-section from a topographical map.

Identify the transect line across the area on the map.

Mark contour intersections along the line and note their elevation.

Transfer the contour points to a graph, plotting height against distance.

Connect the points smoothly to show the shape of the land, representing hills, valleys, and slopes.

13. (b) Discuss common mistakes students make when interpreting contour maps.

Misreading contour intervals leads to incorrect elevation representation.

Ignoring steepness or slope shape can distort cross-section profiles.

Failing to transfer points accurately onto graphs results in incorrect landform depiction.

Overlooking features like rivers or depressions can cause incomplete or misleading cross-sections.

14. Critically analyze the effectiveness of field trips as a learning strategy in Geography.

Field trips provide hands-on experience, making theoretical concepts tangible and memorable.

They encourage observation, critical thinking, and practical problem-solving in real environments.

Field trips develop teamwork, communication, and planning skills among students.

Challenges include cost, time, and accessibility, which may limit their frequency or effectiveness in some schools.

SECTION C (20 Marks)

Answer any two (2) questions from this section.

15. Prepare a lesson plan on "Volcanic Mountains" for Form III students.

Lesson Objective: Students will explain the formation, types, and effects of volcanic mountains.

Introduction: Discuss local or well-known volcanic mountains and ask students how they think they were formed.

Main Activities: Use diagrams, models, or videos to illustrate magma movement, eruption types, and mountain formation.

Assessment: Students identify types of volcanic mountains and explain formation processes.

Conclusion: Summarize effects on human activities and landscapes, emphasizing safety measures.

16. Suggest four (4) innovative approaches that can be used to assess students' understanding in Geography.

Use **digital quizzes and interactive polls** to test knowledge in real time.

Incorporate **project-based assessment**, where students research and present local environmental issues.

Use **practical demonstrations and fieldwork reports** to evaluate application of concepts.

Implement **peer assessment** where students review each other's work to enhance critical evaluation skills.

17. Design an activity to demonstrate “Wind Erosion” using locally available materials.

Students set up trays of soil and sand to simulate land surfaces.

Using fans or simple wind sources, they observe and record movement of particles.

They classify particles by size and distance moved, illustrating deflation and abrasion.

Students then discuss real-world implications on agriculture, settlements, and desertification.

18. Discuss the challenges of implementing competence-based teaching in Geography.

Teachers may lack training and resources to design hands-on, competency-focused lessons.

Large class sizes make individualized guidance and practical exercises difficult.

Limited access to field sites, equipment, and technology hinders practical skill development.

Assessing competencies objectively is challenging, requiring innovative tools and consistent standards.