

**THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATION COUNCIL OF TANZANIA
DIPLOMA IN SECONDARY EDUCATION EXAMINATION**

713

GEOGRAPHY

Time: 3 Hours.

ANSWER

Year: 2003 p.m.

Instructions

1. This paper consists of sections A, B and C.
2. Answer **all** questions in sections A and **two (2)** questions from each of section B and C.
3. Section A carries **40** marks, section B and section C carries 30 marks each.
4. Cellular phones and unauthorized materials are **not allowed** in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).

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1. Differentiate between intensive and extensive agriculture, and explain how physical factors influence their practice in Tanzania.

Intensive agriculture is a farming system that uses small areas of land with high input of labor, capital, and technology to produce high yields per unit area. It is often practiced in fertile areas with good access to water and markets, such as vegetable farming near urban centers.

Extensive agriculture is a system where large areas of land are used with relatively low inputs of labor and capital, resulting in lower yields per unit area. Examples include large-scale cattle ranching in sparsely populated areas.

Physical factors influence these systems in Tanzania. Fertile volcanic soils and reliable rainfall encourage intensive farming in areas such as the slopes of Mount Kilimanjaro. On the other hand, semi-arid areas like Shinyanga are more suitable for extensive livestock keeping because the soils are less fertile and rainfall is low.

2. Describe four ways in which climate change has affected water resources in East Africa.

Climate change has altered rainfall patterns, leading to more frequent droughts that reduce river flows, lake levels, and groundwater recharge. This has decreased water availability for domestic, agricultural, and industrial use.

It has increased the occurrence of extreme weather events such as heavy storms, which cause flooding and contamination of water supplies, making them unsafe for consumption.

Glacial retreat on mountains like Mount Kilimanjaro, caused by rising temperatures, has reduced meltwater sources that feed rivers and streams, lowering long-term water supply.

Higher evaporation rates due to increased temperatures have reduced the volume of water in lakes and reservoirs, further straining water availability.

3. Explain three advantages and three disadvantages of using GIS in geographical studies.

One advantage of GIS is its ability to store and manage large amounts of spatial data, allowing researchers to analyze complex geographical patterns effectively.

It enables visual presentation of data through maps, which helps in understanding spatial relationships and making informed decisions in planning and resource management.

GIS allows integration of different data types such as satellite images, survey data, and statistical information, providing a comprehensive analysis tool.

However, GIS requires significant investment in hardware, software, and skilled personnel, making it costly for some institutions.

It can be limited by the accuracy of input data; poor-quality data can lead to misleading results.

Technical complexity may make it difficult for untrained users to operate GIS systems effectively, reducing its accessibility in some areas.

4. Outline four human activities that accelerate soil erosion in Tanzania, giving examples.

Deforestation for charcoal production in areas like Kilosa District removes vegetation cover, leaving the soil exposed to wind and rain erosion.

Overgrazing by livestock in Shinyanga damages grass cover, leading to loss of topsoil and land degradation.

Poor farming methods such as up-and-down slope ploughing in hilly areas like Iringa increase water runoff and soil washing.

Mining activities in regions like Geita disturb the soil structure and leave loose debris, which is easily eroded by rain and wind.

5. Give three reasons why some volcanic mountains in Tanzania are densely populated while others remain sparsely populated.

Fertile volcanic soils on mountains such as Mount Kilimanjaro support intensive agriculture, attracting dense populations for farming opportunities.

Reliable rainfall and favorable climate on certain volcanic mountains encourage settlement due to good agricultural conditions and comfortable living environments.

Some volcanic areas, like Oldonyo Lengai, remain sparsely populated due to rugged terrain, lack of infrastructure, and risk of volcanic activity, making them less attractive for settlement.

6. Discuss four challenges faced in the sustainable management of wildlife resources in Tanzania.

Poaching for ivory, bushmeat, and skins threatens wildlife populations and undermines conservation efforts.

Encroachment of human settlements into wildlife habitats reduces the available space for animals, leading to conflict between humans and wildlife.

Insufficient funding for conservation programs limits the ability to patrol, monitor, and manage protected areas effectively.

Climate change alters habitats, forcing animals to migrate or adapt, which can lead to imbalances in ecosystems and loss of certain species.

7. Explain three causes and three consequences of rural-urban migration in East Africa.

One cause is the search for employment opportunities in urban centers, where industries and businesses are concentrated.

Another cause is the availability of better social services such as education, healthcare, and recreational facilities in towns.

Poor rural infrastructure and limited access to markets push people to move to cities where transport and communication are better.

A consequence is urban overcrowding, which strains housing, water supply, and sanitation services.

It can lead to unemployment and underemployment as the influx of job seekers exceeds the availability of jobs.

It contributes to rural depopulation, reducing the labor force available for agricultural activities and slowing rural development.

8. With examples, explain three ways relief influences transport systems in Tanzania.

In mountainous areas like the Usambara and Uluguru ranges, steep slopes make road and railway construction expensive and difficult, limiting accessibility.

Flat and gently sloping areas such as the coastal plains are suitable for building extensive road networks, facilitating trade and communication.

Rift valleys, like the one passing through Manyara, sometimes provide natural routes for transport lines, but escarpments along the valleys can create obstacles that require engineering solutions.

9. Outline four major differences between natural vegetation in equatorial regions and that in tropical savanna regions.

Equatorial vegetation is dense and evergreen due to abundant rainfall, while savanna vegetation is characterized by scattered trees and tall grasses adapted to seasonal rainfall.

Equatorial forests have multiple layers, including canopy, understory, and shrub layers, whereas savannas generally have only two layers—trees and grasses.

Species diversity is much higher in equatorial forests, with numerous plant types, while savannas have fewer tree species, often dominated by drought-resistant varieties like acacias.

In equatorial regions, leaf fall is minimal and occurs irregularly, while in savannas, trees often shed leaves during the dry season to reduce water loss.

10. Explain three ways population pyramids can be used in planning national development.

They help identify the proportion of young, working-age, and elderly populations, which informs resource allocation for education, employment, and healthcare.

Population pyramids show dependency ratios, helping governments plan social services and economic policies to support dependents.

They reveal population growth trends, guiding decisions on infrastructure development such as schools, hospitals, and housing to meet future needs.

11. Examine six factors that influence industrial location in Tanzania.

Availability of raw materials is a major factor because industries prefer to be close to the source to reduce transportation costs. For example, sugar factories are located near sugarcane plantations in places like Kilombero.

Access to markets influences location since industries need to be close to consumers to sell their products easily. Urban areas like Dar es Salaam attract many industries because of their large markets.

Availability of power supply is essential, as industries require reliable electricity or other sources of energy for production. Areas connected to the national grid, such as Mwanza, have more industrial establishments.

Transport and communication infrastructure affect location by determining how easily goods can be moved. Industries are more common in areas with good roads, railways, and port facilities, such as Tanga.

Availability of labor, both skilled and unskilled, is necessary for production. Industrial towns attract workers from nearby rural areas, which supports continuous operation.

Government policies, such as tax incentives, industrial zones, and subsidies, also influence location. For instance, Export Processing Zones encourage the establishment of industries in designated areas.

12. Discuss six problems facing fishing industry in East Africa and suggest solutions for each.

Overfishing depletes fish stocks, making it difficult to sustain catches. This can be solved by enforcing fishing quotas and seasonal bans to allow fish to breed.

Use of destructive fishing methods, such as dynamite fishing, damages aquatic ecosystems. The solution is strict enforcement of fishing regulations and heavy penalties for offenders.

Pollution from industrial waste, agriculture, and sewage reduces water quality and affects fish health. This requires improved waste management systems and environmental monitoring.

Poor infrastructure, such as inadequate cold storage facilities, leads to post-harvest losses. Building more storage and processing plants near landing sites can address this issue.

Limited modern fishing equipment reduces efficiency and productivity. Providing affordable loans for fishermen to purchase better equipment can improve catches.

Climate change and fluctuating water levels affect fish breeding patterns. Solutions include diversifying fishing areas and promoting aquaculture to reduce reliance on wild fish.

13. Evaluate the effectiveness of tourism in promoting socio-economic development in Tanzania (six points).

Tourism generates significant foreign exchange earnings, which contribute to national income and support development projects.

It creates employment opportunities directly in hotels, tour companies, and parks, and indirectly in related sectors like agriculture and crafts.

Tourism promotes infrastructure development, including roads, airports, and communication systems, benefiting both locals and visitors.

It fosters cultural exchange, as tourists interact with local communities, promoting understanding and appreciation of Tanzanian traditions.

Tourism encourages conservation efforts, as national parks and reserves are protected to attract visitors, preserving wildlife and natural heritage.

However, overdependence on tourism can be risky, as global crises like pandemics drastically reduce tourist arrivals, impacting the economy.

14. Assess the contribution of small-scale mining to the economy of Tanzania (six points).

Small-scale mining provides employment to thousands of Tanzanians, especially in rural areas where other job opportunities are limited.

It contributes to local economies by stimulating trade in mining towns and supporting small businesses like shops and food vendors.

Revenue from small-scale mining, through taxes and license fees, adds to government income for development projects.

It promotes skills development, as miners learn techniques in mineral extraction and business management.

The sector supports foreign exchange earnings through exports of minerals like gold and gemstones.

However, its contribution is sometimes limited by informal operations and poor safety standards, which require formalization and regulation.

15. Discuss four advantages and four disadvantages of using group work method in teaching and learning Geography.

One advantage is that group work encourages collaboration and sharing of ideas, helping students learn from one another.

It develops communication skills as learners explain concepts and discuss solutions with peers.

Group work allows for the division of tasks, making it easier to complete large assignments efficiently.

It enhances problem-solving skills as students tackle real-life situations collectively.

One disadvantage is that some members may contribute less, leaving the workload to others.

It can be time-consuming, especially if discussions drift off-topic.

Group conflicts may arise due to differences in opinion, affecting group cohesion.

Assessing individual performance within a group can be difficult for the teacher.

16. Suggest six strategies a Geography teacher can use to make fieldwork more effective and meaningful for learners.

Clearly defining the objectives of the fieldwork so students understand its purpose and expected outcomes.

Preparing detailed plans, including locations, equipment, and schedules, to ensure smooth execution.

Providing students with background information before the trip so they are familiar with what they will observe.

Assigning specific roles to students to encourage active participation in data collection and recording.

Using structured worksheets or questionnaires to guide observations and ensure relevant data is gathered.

Conducting follow-up activities, such as presentations or reports, to consolidate learning from the fieldwork.

17. Explain six challenges a teacher may face when using project-based learning in Geography and propose solutions.

Limited resources such as materials, equipment, or funds can hinder project execution. Schools can address this by seeking community support or using low-cost materials.

Time constraints may make it difficult to complete projects within the academic calendar. Teachers can plan smaller, manageable projects.

Unequal participation may occur when some students do most of the work. Assigning clear roles can ensure fair contribution.

Lack of student motivation can affect project quality. Teachers can increase interest by selecting topics relevant to students' lives.

Inadequate supervision can lead to off-track work. Regular check-ins can keep students focused.

Difficulty in assessing projects fairly can arise. Developing clear rubrics can make evaluation more objective.

18. Describe four main components of a Geography lesson plan and explain the importance of each.

The objectives state what learners should achieve by the end of the lesson, guiding both teaching and assessment.

The content outlines the information and concepts to be covered, ensuring lessons remain focused on relevant material.

The teaching methods specify the approaches to be used, such as discussions or demonstrations, ensuring effective delivery of content.

The evaluation section indicates how learning will be assessed, such as through questions or practical activities, to measure understanding and progress.