THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL OF TANZANIA

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

713 **GEOGRAPHY**

(SUPPLEMENTARY)

Time: 3 Hours. **ANSWER** **Year: 2006**

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 principal topographical zones across the Eastern African corridor and explain how each influences human settlement choice.

The **highland plateaus** have moderately flat terrain at high elevation. They are attractive for settlements because of fertile soils for agriculture, cooler climate, and reduced disease prevalence compared with lowlands.

The **rift valleys** are characterized by deep depressions and volcanic features. Settlements tend to concentrate on valley floors where water and fertile soils are available, although steep slopes limit building.

The **coastal lowlands** feature sandy soils and mangrove swamps. Settlements are often near ports or along rivers to exploit fishing, trade, and transport, while avoiding areas prone to flooding.

The **interior plains and savannahs** are flat grasslands. Settlements here are sparse and usually located near water sources or along transport corridors to support pastoralism and mechanized farming.

2. Explain four economic or institutional conditions that commonly sustain above-average birth rates in developing communities.

Limited access to family planning means couples are less able to control the number of children. This sustains high fertility and population growth.

Reliance on children for labor, especially in agriculture, encourages families to have more children who contribute economically.

Cultural norms favoring large families promote high birth rates as children are seen as a source of social security and prestige.

Low female education levels reduce awareness of reproductive health options, leading to early marriage and repeated childbearing.

3. Give four proximate health or infrastructure reasons for elevated infant mortality in Tanzanian rural districts, and recommend one short-term remedy for each.

Poor sanitation and water quality increase risk of diarrhea and infection. Remedy: provide clean water sources and hygiene education.

Limited access to healthcare facilities delays treatment for complications. Remedy: deploy mobile clinics to reach remote villages.

Malnutrition in mothers and infants leads to weakened immunity. Remedy: implement community nutrition programs and supplementation.

Inadequate immunization coverage exposes infants to preventable diseases. Remedy: conduct vaccination campaigns in rural areas.

4. Explain how a total station operates and list two advantages it offers over manual chain-and-compass methods in precise surveying.

A **total station** combines electronic distance measurement (EDM) with angular measurement to record coordinates of points accurately.

It offers **higher accuracy**, reducing errors common in manual chain measurements.

It also allows **faster data collection** with electronic recording, reducing transcription errors and saving time during fieldwork.

5. Identify four commercial or tourism activities in regions once sculpted by ice in northern Europe, and clarify how glacial deposits support them.

Hydropower generation exploits valleys and glacial lakes formed by ice erosion.

Skiing and winter tourism utilize mountainous terrain created by glacial carving.

Dairy and crop farming benefit from fertile glacial soils in valley bottoms.

Mining and quarrying exploit glacial deposits of sand, gravel, and mineral-rich moraines.

6. Assess two benefits and two drawbacks of increased visitor numbers to Tanzania's coastal reserves.

Economic benefits include foreign currency earnings and job creation in tourism-related sectors.

Community development occurs through infrastructure improvements such as roads and utilities.

Environmental drawbacks include coral reef degradation and habitat disturbance.

Social drawbacks include increased cost of living for local residents and cultural erosion in coastal communities.

7. (a) Define environmental harm in a geographical context.

Environmental harm is any alteration of natural systems by human or natural agents that negatively affects ecosystems, biodiversity, or human well-being.

(b) Classify harm by scale and by agent.

By **scale**, harm can be local, regional, or global. By **agent**, it can be natural (floods, volcanic eruptions) or anthropogenic (industrial, agricultural).

(c) Provide an example of cross-scale harm and one mitigating action.

A **flood in the Rufiji River basin** affects local farmers and contributes to regional sedimentation. Mitigation: construct levees and reforest upstream areas.

8. (a) Give a concise statement of what pollution means for ecosystems.

Pollution is the introduction of harmful substances or energy into air, water, or soil that adversely affects living organisms and ecosystem functions.

(b) Name four common pollution categories encountered in towns.

Air, water, soil, and noise pollution.

(c) Choose one category and outline two monitoring indicators.

For **air pollution**, indicators include particulate matter (PM10/PM2.5) concentrations and nitrogen dioxide levels measured at urban monitoring stations.

9. State four necessary natural or engineered prerequisites for constructing a large-scale hydropower dam.

Sufficient river flow ensures reliable power generation year-round.

Adequate hydraulic head allows turbines to operate efficiently.

Stable geological foundation supports the dam structure and prevents failure.

Access to transmission networks enables generated electricity to reach demand centers.

10. Explain four ways geography education enhances resource management and community resilience in Tanzania, with examples.

Spatial mapping skills help identify suitable land for agriculture or infrastructure. Example: using GIS to plan irrigation projects.

Disaster preparedness knowledge aids in early warning and evacuation planning. Example: mapping flood-prone zones.

Environmental awareness encourages sustainable practices. Example: promoting reforestation in degraded watersheds.

Analytical skills enable evaluation of policy impacts. Example: assessing land-use changes from deforestation to guide local regulations.

SECTION B (40 Marks)

Answer two (2) questions from this section.

11. From classroom practice, discuss four analytical or practical skills that geography lessons develop, and for each provide a workplace example.

Map-reading skills allow interpretation of topographic and thematic maps, useful in urban planning.

Data analysis skills enable evaluation of spatial trends, applicable in environmental consultancy.

Field observation skills train students to collect reliable measurements, useful for surveyor roles.

Problem-solving and decision-making skills support logistics planning in government or NGO projects.

12. (a) Define teaching materials for geography lessons.

Teaching materials are tools and resources used to facilitate learning, including maps, globes, charts, digital datasets, GPS, and field instruments.

(b) Evaluate the role of interactive maps in learning: list three advantages and one significant drawback.

Advantages: enhance engagement, allow real-time spatial analysis, and support visualization of abstract concepts.

Drawback: require electricity and digital devices, limiting access in low-resource schools.

(c) Suggest two teacher-made aids that help teach climatic zones.

A **large printed map with color-coded climatic zones** and **cardboard climate cards showing temperature and rainfall patterns** can illustrate climate differences effectively.

13. Field notes came from transects, point samples, and photographic logs. Critique four common recording practices for geographical data, addressing reliability and student workload.

Transects provide systematic data but are time-consuming.

Point sampling is quick but may miss variability in the landscape.

Photographic logs are accurate for visual analysis but require proper labeling and storage.

Sketch maps enhance observation skills but may lack precision and comparability.

14. Discuss four ways a syllabus supports a teacher's planning and evaluation of geography learning, illustrating each with a short example.

Lesson sequencing: ensures logical progression of topics, e.g., teaching map skills before fieldwork.

Assessment alignment: links objectives to evaluation methods, e.g., including fieldwork tasks in exams.

Resource identification: guides what materials are needed, e.g., globes and topographic maps.

Continuity across classes: maintains consistent coverage for students transitioning between grades.

SECTION C (20 Marks)

Answer two (2) questions from this section.

15. (a) What is a lesson blueprint?

A lesson blueprint is a structured plan outlining objectives, teaching activities, learning resources, timing, and assessment methods to guide classroom instruction.

(b) Prepare a 45-minute lesson blueprint for Form One on "Earth's spin and day-night cycles," indicating assessment and materials.

Objectives: Explain rotation of Earth and its effects on day and night.

Starter activity (5 min): Ask students to observe sunrise or shadows.

Main activities (30 min): Demonstrate Earth's rotation with a globe (10 min); small group discussion of observed shadow changes (10 min); individual reflection and note-taking (10 min).

Assessment (10 min): Short quiz on causes of day-night cycle and Earth's rotation direction.

Resources: Globe, markers, projector, and worksheets.

16. Identify four active teaching strategies that build map-reading skills during fieldwork and describe one activity under each strategy.

Demonstration: Teacher shows compass and scale use. Activity: students replicate measurements in the schoolyard.

Guided practice: Students measure distances along a transect. Activity: record and plot on paper maps.

Peer teaching: Students instruct each other in identifying contour lines. Activity: small group exchanges of mapping tasks.

Problem-based learning: Students solve route-planning exercises using local maps. Activity: select shortest path to school using topography.

17. Write a lesson plan using Think-Pair-Share to teach the interpretation of climate graphs, allocating time for each phase and defining outputs.

Think (5 min): Students examine a climate graph individually to identify wet and dry seasons.

Pair (10 min): Compare observations and calculate average rainfall.

Share (10 min): Pairs present findings to the class, producing a table or diagram summarizing rainfall and temperature.

Assessment (5 min): Teacher checks accuracy of student calculations and interpretations.

18. Explain four ways formative and summative assessments differ in

geography, with one concrete technique for each difference.

Purpose: Formative monitors learning; technique: in-class questioning. Summative evaluates achievement; technique: end-of-term exams.

Timing: Formative occurs continuously; technique: homework checks. Summative is periodic; technique: final project submission.

Feedback: Formative provides immediate guidance; technique: oral comments during fieldwork. Summative provides final evaluation; technique: grading of term assignments.

Scope: Formative focuses on specific skills; technique: map-reading drills. Summative covers broad knowledge; technique: cumulative written test.