THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL OF TANZANIA

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

713 **GEOGRAPHY**

(SUPPLEMENTARY)

Time: 3 Hours. **ANSWER** **Year: 2009**

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

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Prepared by Maria Marco for TETEA

SECTION A (40 Marks)

Answer all questions in this section.

1. Identify four dominant physical provinces in East Africa and show how each has influenced historical settlement corridors.

   The **highland plateaus** have fertile soils and moderate climates, which encouraged permanent agricultural settlements and dense population corridors.

   The **rift valleys** feature volcanic soils and lakes, providing fertile areas for agriculture and human settlements along the valley floor.

   The **coastal plains** offer access to the ocean, fostering trade-based settlements, fishing communities, and ports.

   The **savannah grasslands** support pastoralism, with settlement corridors oriented along water sources and grazing routes.

2. Explain four demographic or service-related reasons that tend to keep fertility rates high in parts of East Africa.

   Children as labor: Families rely on children to work on farms or businesses.

   Cultural preferences: Early marriage and large family norms encourage high fertility.

   Limited access to reproductive health services: Reduces the use of contraceptives.

   High child mortality: Families have more children as a safeguard against infant deaths.

3. State four environmental or clinical contributors to infant deaths in Tanzania and recommend a community action for each.

   Poor sanitation and unsafe water: Mitigation: provide clean water and hygiene education.

   Limited access to healthcare: Mitigation: establish local health posts.

Malnutrition: Mitigation: implement community nutrition programs for mothers and children.

Home births without skilled attendants: Mitigation: train and deploy community midwives.

4. Describe two ways modern surveying instruments reduce angular and distance errors compared with compass-and-chain techniques.

Electronic theodolites or total stations allow **precise angle measurement**, reducing human error.

Distance measurements using EDM devices or laser rangefinders are **faster and more accurate**, eliminating pacing or chain miscalculations.

5. Explain four commercial opportunities that arise from landscapes sculpted by ancient glaciers in Europe.

Hydropower generation: Exploits steep valleys.

Tourism: Scenic glacial landscapes attract visitors.

Agriculture: Fertile soils from glacial deposits support crops.

Mining and quarrying: Moraines provide sand, gravel, and minerals for industry.

6. Discuss the main positive and negative implications of growing tourism enterprises for Tanzanian hinterland communities.

Positive: Creates employment and generates income for local businesses.

Positive: Improves infrastructure such as roads and electricity.

Negative: Environmental degradation, including deforestation and waste pollution.

Negative: Cultural disruption and potential displacement of local communities.

7. (a) Define environmental contamination succinctly.

Environmental contamination is the introduction of harmful substances into ecosystems, affecting humans, plants, and animals.

(b) Create a two-axis classification for contamination and explain its axes.

One axis: **by source** (industrial, agricultural, domestic).

Second axis: **by affected medium** (air, water, soil).

(c) Provide a case study example and propose one immediate control measure.

Industrial chemical spill into a river; control: immediate containment and treatment of wastewater before discharge.

8. (a) Provide a short definition of pollution relevant to urban planners.

Pollution is the presence of harmful substances in the environment that negatively affect human health, ecosystems, or resources.

(b) List four pollutant categories that urban planners monitor.

Air pollutants, water pollutants, solid waste, noise pollution.

(c) Choose one pollutant and describe two policy responses used to control it.

Air pollution: implement emission standards for vehicles and industries, and promote green urban spaces to filter particulates.

9. Name and explain the four natural or technical factors required to harness river flow for power generation.

Adequate water flow: ensures consistent energy production.

High hydraulic head: provides sufficient pressure to drive turbines efficiently.

Stable geology: supports construction of dams and hydropower infrastructure.

Proximity to transmission grid: allows electricity to reach consumers efficiently.

10. Examine four contributions of secondary-school geography to climate-change adaptation planning in Tanzania, giving concrete illustrations.

Spatial awareness: students learn to map flood-prone areas, supporting risk planning.

Understanding environmental systems: knowledge of rivers and rainfall helps design irrigation schemes.

Disaster preparedness skills: learners identify vulnerable zones for early warning systems.

Community engagement: students participate in tree planting and conservation, promoting mitigation measures.

SECTION B (40 Marks)

Answer two (2) questions from this section.

11. Outline four intellectual or technical skills pupils gain from geography studies, and for each indicate a sector where it is useful.

Critical thinking: useful in environmental policy analysis.

Map interpretation: applied in urban planning and logistics.

Data collection and analysis: relevant to research and GIS services.

Report writing: needed in consultancy, environmental monitoring, or local governance.

12. (a) What are teaching resources in geography instruction?

Teaching resources include maps, globes, GIS software, field equipment, and multimedia materials used to enhance learning.

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(b) Evaluate the effectiveness of three low-cost field aids for data collection in schools with limited budgets.

Tape measures: accurate for distance; cheap but require careful handling.

Compass: guides orientation; inexpensive but needs practice.

Sketch maps: help visualize features; cheap but less precise.

(c) Suggest one method for integrating local knowledge into lessons.

Conduct interviews with local farmers or elders to gather information on soil, climate, or land use practices.

13. The teacher must compile a field report combining numerical measurements, photographs, and oral histories. Critically assess four recording approaches for geographic projects.

Field diary: detailed notes, time-consuming.

Digital sensors: accurate and efficient but require electricity.

Sketch maps: good for visualization, less precise.

Structured interviews: collect standardized qualitative data, may be biased by responses.

14. Explain four roles the syllabus plays in aligning classroom practice with national examination expectations and continuity between teachers.

Planning: guides content coverage, e.g., sequencing topics logically.

Assessment alignment: ensures teaching meets exam objectives.

Resource allocation: identifies materials needed for fieldwork and labs.

Continuity: standardizes teaching across different classes and teachers.

SECTION C (20 Marks)

Answer two (2) questions from this section.

15. (a) Define a teacher's lesson structure.

A lesson structure is an organized framework for teaching, outlining objectives, activities, resources, and assessment steps.

(b) Prepare a 45-minute lesson for Form One titled "Earth's rotation: effects and evidence," with learning outcomes and brief assessment.

Learning outcomes: Students explain day-night cycles and identify observable evidence.

Starter (5 min): Discuss sunrise and sunset experiences.

Main activity (30 min): Globe demonstration, student observation of shadow movement, worksheet activity on time zones.

Assessment (10 min): Oral questions and worksheet review.

16. Present four hands-on strategies to teach students how to collect and record topographic data, and give one example activity for each.

Demonstration: Using a clinometer to measure slope angles.

Guided practice: Students measure distances along a transect using tape.

Peer instruction: Students teach each other how to take GPS coordinates.

Problem-solving: Calculate the area of a plot from measured points and identify errors.

17. Prepare a lesson plan demonstrating Think-Pair-Share for teaching contour interpretation and profile drawing, including timing and assessment.

Think (5 min): Individually identify contour intervals.

Pair (10 min): Compare and verify results with a partner.

Share (10 min): Present cross-section profiles to class.

Assessment: Evaluate accuracy of drawn profiles.

18. Describe four ways assessment supports learning in geography and suggest a simple classroom instrument for each role.

Monitoring comprehension: quizzes.

Skill evaluation: observation checklists during fieldwork.

Providing feedback: reflection journals.

Aligning with curriculum: portfolios or grading rubrics.