THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL OF TANZANIA

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

713 **GEOGRAPHY**

(SUPPLEMENTARY)

Time: 3 Hours. **ANSWER** **Year: 2007**

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. Explain four key physical regions across East Africa and show how each region's relief controls the distribution of major roads and towns.

   The **highland plateaus** feature flat to undulating terrain at high elevation. Roads and towns are concentrated here because construction is easier and fertile soils support agriculture.

   The **rift valleys** consist of deep depressions and escarpments. Major roads follow valley floors where gradients are gentler, and towns are sited near water and fertile land.

   The **coastal plains** are low-lying and sandy. Settlement and transport networks develop along the coast to exploit ports, fishing, and trade, avoiding flood-prone zones.

   The **interior savannahs** are vast flat grasslands. Roads are sparse but usually connect major settlements or agricultural zones, while towns emerge near water sources or transport junctions.

2. Discuss four household or market factors that raise fertility levels in many low-income settings and for each state a policy that could reduce it.

   Preference for large families sustains high fertility; policy: promote awareness campaigns on family planning benefits.

   Dependence on children for labor, especially in farming, encourages high birth rates; policy: mechanization and adult labor programs.

   Early marriage traditions lead to prolonged childbearing; policy: enforce minimum marriage age laws.

   Limited access to reproductive health services keeps fertility high; policy: expand maternal and child health clinics.

3. Name four direct health-service or environmental contributors to infant deaths in Tanzania and provide one short preventive measure per cause.

Poor maternal health services can cause complications; preventive measure: improve prenatal care availability.

Malnutrition among infants weakens immunity; preventive measure: implement nutrition supplementation programs.

Unsafe drinking water causes diarrheal diseases; preventive measure: provide clean water sources.

Inadequate immunization coverage exposes infants to preventable diseases; preventive measure: conduct vaccination campaigns.

4. Describe the principal functions of a GPS unit in field mapping and contrast its outputs with those from manual bearings.

A **GPS unit** provides precise coordinates (latitude, longitude, elevation) in real-time for mapping points.

Compared with manual bearings, GPS outputs are **more accurate**, reduce human measurement errors, and provide data digitally for easy integration into GIS.

5. Explain four ways in which legacy glacial landscapes have been harnessed for modern economic use in Europe.

Hydropower uses glacial valleys and lakes to generate electricity.

Tourism and recreation exploit mountainous glacial terrain for skiing and hiking.

Agriculture benefits from fertile soils deposited by glaciers.

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

6. Evaluate the economic advantages and social-environmental disadvantages of mass tourism development in Tanzanian protected areas.

Economic advantages: foreign exchange earnings and employment opportunities.

Community development: improved infrastructure and services due to tourist demand.

Environmental disadvantages: habitat degradation, pollution, and overuse of natural resources.

Social disadvantages: displacement of communities, cultural erosion, and increased cost of living.

7. (a) Define the term contamination incident.

   A contamination incident is any event where harmful substances are released into the environment, causing damage to ecosystems or human health.

   (b) Create a classification by pathway and by effect.

   By **pathway**: waterborne, airborne, soil-borne. By **effect**: acute, chronic, local, or regional.

   (c) For one pathway, describe a likely local source and one practical control option.

   For **waterborne contamination**, industrial effluent discharged into rivers is common; control: enforce effluent treatment before discharge.

8. (a) Define pollution in relation to human settlements.

   Pollution is the introduction of harmful substances or energy into air, water, or soil that negatively impacts human health and the surrounding environment.

   (b) List four types of pollution commonly mapped in urban studies.

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

   (c) Pick one type and explain two likely urban hotspots where it concentrates.

   For **air pollution**, hotspots include traffic intersections with heavy congestion and industrial zones with emissions stacks.

9. Specify and explain four essential hydrological and geographic conditions that make a river suitable for hydroelectric exploitation.

   Adequate river flow ensures continuous energy generation.

Significant hydraulic head allows turbines to convert water potential energy efficiently.

Stable geology supports dam construction safely.

Proximity to power demand or transmission networks reduces energy loss and distribution costs.

10. Discuss four contributions of school-level geography to environmental stewardship in Tanzania, with examples.

Awareness of natural resources teaches students to conserve water and forests.

Understanding of human impact encourages reduced waste and sustainable land use.

Disaster preparedness knowledge supports community resilience, e.g., flood mapping exercises.

Community engagement skills enable participation in tree planting or local clean-up campaigns.

SECTION B (40 Marks)

Answer two (2) questions from this section.

11. Describe four critical thinking or fieldwork skills pupils acquire via geography lessons, and map each skill to a civic or professional task.

Observation skills enable accurate data collection; applied in urban planning or environmental monitoring.

Data interpretation skills support analysis of maps and statistics; applied in disaster management.

Problem-solving skills guide solutions to spatial challenges; used in transport or land-use planning.

Report-writing skills communicate findings effectively; relevant for environmental reports or policy briefs.

12. (a) Define what educational aids mean for geography teachers.

Educational aids are materials and tools that facilitate teaching and learning, such as maps, globes, charts, GPS devices, and field instruments.

(b) Evaluate three pros and two cons of using satellite imagery in secondary geography instruction.

Pros: enhances spatial visualization, provides up-to-date data, and allows remote sensing of inaccessible areas.

Cons: requires digital literacy and internet access, and may be expensive.

(c) Recommend one classroom activity that uses low-tech visuals to teach erosion.

Students use sand trays and water to model river or rainfall erosion and observe sediment movement.

13. A teacher must choose between analogue maps, digital layers, and narrative reports for a local study. Critically discuss four recording methods and their implications for data quality and student engagement.

Analogue maps are simple to use but may be less precise.

Digital layers provide high accuracy and easy storage but require technology.

Narrative reports capture qualitative insights but are time-consuming to analyze.

Photographs visually document features but need proper labeling and interpretation.

14. Explain four ways a curricular guide informs day-to-day teaching and long-term continuity in geography.

Lesson planning: ensures topics are covered systematically.

Assessment alignment: links learning objectives to evaluation.

Resource allocation: identifies teaching materials needed.

Consistency across grades: maintains uniform standards for students moving between classes.

SECTION C (20 Marks)

Answer two (2) questions from this section.

15. (a) What do teachers mean by a lesson framework?

A lesson framework is a structured outline detailing objectives, teaching methods, timing, activities, resources, and assessment strategies for a lesson.

(b) Design a 45-minute lesson framework on "Effects of Earth's rotation" for entry-level students, including formative checks.

Objectives: Explain day-night cycle and Coriolis effect.

Starter (5 min): Ask students to share observations of sunrise and sunset times.

Main activities (30 min): Demonstrate Earth's rotation with a globe (10 min), student group discussion on effects on weather and ocean currents (10 min), worksheet exercises on identifying day-night zones (10 min).

Assessment (10 min): Quick oral questions on rotation direction and its observable effects.

16. Identify four classroom or field strategies for building students' competence in collecting geographic measurements, with one example per strategy.

Demonstration: Teacher shows how to use a compass; students practice in the schoolyard.

Guided practice: Students measure transect distances; record data in tables.

Peer teaching: Students instruct each other in using clinometers to measure slopes.

Problem-solving: Students calculate area using field measurements and discuss errors.

17. Prepare a lesson plan that uses Think-Pair-Share to improve students' skills in constructing cross-sections from contour maps, include assessment criteria.

Think (5 min): Students analyze a contour map individually.

Pair (10 min): Compare interpretations and plot elevation points.

Share (10 min): Present cross-section drawings to the class; teacher checks for accuracy.

Assessment (5 min): Evaluate cross-sections for correct contour spacing and elevation labeling.

18. Analyze four ways assessment data can inform improvements in geography teaching and suggest one simple instrument for each.

Identifying gaps in knowledge: instrument: short quizzes.

Monitoring skill acquisition: instrument: observation checklists during fieldwork.

Evaluating instructional methods: instrument: student feedback forms.

Tracking progress over time: instrument: cumulative grade sheets or portfolios.