THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL OF TANZANIA

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

713 **GEOGRAPHY**

Time: 3 Hours. **ANSWER** **Year: 2014 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).

1. Briefly describe the following as used in Geography: tidal power, wind energy, biogas, geothermal energy.

   Tidal power is energy generated from the movement of ocean tides. It uses turbines placed in tidal streams or barrages to convert the kinetic energy of moving water into electricity. It is renewable and predictable but depends on suitable coastal locations.

   Wind energy is the power obtained from moving air masses. It is harnessed using wind turbines that convert kinetic energy into mechanical or electrical power. It is clean and renewable but can be affected by variations in wind speed.

   Biogas is a type of fuel produced through anaerobic digestion of organic materials such as animal waste, crop residues, and sewage. It contains methane, which can be burned to produce heat, electricity, or used for cooking.

   Geothermal energy is heat energy stored within the Earth. It is harnessed by tapping into hot water reservoirs or steam beneath the surface to drive turbines for electricity generation. It is renewable but limited to areas with volcanic or tectonic activity.

2. Mention four environmental problems in Tanzania.

   Deforestation caused by logging, charcoal production, and agricultural expansion, leading to habitat loss and climate change.

   Soil erosion due to poor farming methods, overgrazing, and deforestation, which reduces soil fertility and agricultural productivity.

   Water pollution from industrial waste, agricultural chemicals, and poor waste management, affecting aquatic life and human health.

   Loss of biodiversity caused by habitat destruction, poaching, and unsustainable resource use, which threatens wildlife populations.

3. Outline four importance of soil texture.

Soil texture affects water retention and drainage, influencing the suitability of soil for different crops.

It determines the soil's ability to hold nutrients, which is essential for plant growth and productivity.

Texture influences soil aeration, affecting root respiration and microbial activity.

It affects tillage practices, as soils with different textures require specific farming tools and techniques.

4. Describe fault scarp, rift valley, block mountains, earthquakes.

A fault scarp is a steep slope or cliff formed when one block of land moves vertically relative to another along a fault line, exposing fresh rock or soil.

A rift valley is a long, narrow depression formed when the Earth's crust stretches and fractures, causing central blocks to sink between parallel faults.

Block mountains are large uplifted blocks of the Earth's crust created when faults push land upwards, forming steep-sided mountains.

Earthquakes are sudden shaking or vibration of the Earth's surface caused by the release of energy from the Earth's crust, usually along fault lines.

5. Discuss three socio-cultural factors encouraging tourism development in Tanzania.

Tanzania's diverse ethnic groups offer unique cultural experiences through traditional dances, music, crafts, and festivals, attracting cultural tourists.

Historical sites such as Stone Town in Zanzibar and Bagamoyo provide insight into Tanzania's past, appealing to visitors interested in heritage tourism.

Religious and cultural ceremonies, such as Maasai initiation rites or Islamic festivals, offer authentic experiences that draw both domestic and international tourists.

6. Analyse four effects of earthquakes on the environment.

They can cause large-scale destruction of infrastructure such as buildings, roads, and bridges, leading to economic losses and displacement of people.

Earthquakes may trigger landslides, destroying vegetation, blocking roads, and burying settlements.

They can alter landscapes by creating cracks, fissures, and uplifting land, changing drainage patterns and affecting ecosystems.

In coastal areas, earthquakes can generate tsunamis, causing severe flooding, destruction of property, and loss of lives.

7. Describe dendritic and trellis drainage patterns (with diagrams).

A dendritic drainage pattern resembles the branching pattern of a tree, with streams joining the main river at various angles. It forms in regions with uniform rock structure where water flows downhill without structural control.

A trellis drainage pattern features parallel main streams connected by short tributaries at right angles. It forms in areas with alternating bands of hard and soft rock, often in folded landscapes.

8. Write three advantages of using an atlas in teaching Geography.

An atlas provides a collection of different maps in one volume, allowing easy access to physical, political, and thematic maps during lessons.

It supports visual learning, enabling students to understand spatial relationships and geographical features more effectively.

An atlas is portable and convenient for both classroom use and fieldwork, making it a practical teaching resource.

9. List five importance of multiple-choice items in assessing students' achievement in Geography.

They allow quick and objective marking, reducing the influence of examiner bias.

Multiple-choice questions cover a wide range of topics in a short time, testing various areas of knowledge efficiently.

They encourage precise understanding, as students must choose the most correct option from several alternatives.

The format is easy to standardize, making it useful for large-scale examinations.

They help in diagnosing specific areas where students may have misconceptions or lack knowledge.

10. Briefly explain three significance of using a Geography textbook in teaching and learning.

A textbook provides structured content that follows the curriculum, ensuring that students learn all required topics in the correct sequence.

It serves as a reference source for definitions, explanations, and illustrations that support classroom teaching.

Textbooks contain exercises, review questions, and case studies that help reinforce learning and assess understanding.

11. Analyse five factors influencing settlement development in Tanzania.

Availability of water sources is a key factor because people tend to settle in areas with rivers, lakes, or reliable groundwater for drinking, farming, and domestic use. For example, settlements along Lake Victoria and River Pangani have grown due to abundant water.

Fertile soils encourage settlement as they support productive agriculture. Areas like the Kilimanjaro slopes attract dense populations due to volcanic soils that yield high crop harvests.

Accessibility through good transport networks such as roads and railways promotes settlement. Well-connected towns like Morogoro and Arusha attract residents for trade and job opportunities.

Favourable climate conditions, such as moderate temperatures and adequate rainfall, attract people to settle. This explains why highland areas like Iringa have higher population densities compared to arid zones.

Availability of economic opportunities, such as mining, fishing, or tourism, draws people to certain areas. Mining towns like Geita and tourism hubs like Zanzibar see population growth due to jobs and business prospects.

12. Assess five impacts of population growth on forest resources.

Population growth increases demand for firewood and charcoal, leading to widespread deforestation in many rural and urban areas.

Expansion of agricultural land to feed the growing population results in clearing forested areas, reducing biodiversity and natural habitats.

Increased livestock numbers contribute to overgrazing in forested regions, damaging vegetation and preventing regeneration of trees.

Urban expansion consumes large areas of forest land for housing, roads, and industries, reducing forest cover.

Overexploitation of timber for construction and furniture due to higher demand from a larger population puts pressure on forest sustainability.

13. Explain five factors that hinder harnessing hydroelectric power in East Africa.

Seasonal variations in rainfall affect water flow in rivers, making some hydroelectric plants unreliable during dry seasons.

High costs of constructing dams and associated infrastructure make it difficult for governments with limited budgets to invest in large-scale projects.

Siltation caused by soil erosion reduces the capacity of reservoirs, lowering efficiency and lifespan of dams.

Environmental concerns, such as displacement of communities and destruction of ecosystems, lead to opposition and delays in projects.

Political instability or lack of regional cooperation can disrupt joint hydroelectric initiatives on shared rivers.

14. Critically examine five factors supporting the statement, “Geography is multidisciplinary.”

Geography integrates physical sciences such as geology, meteorology, and hydrology when studying natural features and processes.

It draws from social sciences like sociology, economics, and anthropology to understand human activities, settlement patterns, and economic development.

Mathematics and statistics are used for data collection, analysis, and presentation, especially in mapping and GIS.

Environmental science principles are applied in topics such as resource management and climate change studies.

History is also involved, as geographical patterns often require an understanding of past events and their influence on present conditions.

15. Describe five strengths of using the field-trip method in teaching and learning Geography.

Field trips provide first-hand experience of geographical features and processes, making learning more vivid and memorable.

They help bridge the gap between theory and practice by showing students real-world applications of classroom concepts.

Field trips enhance student motivation and interest, as learners actively participate in observation and data collection.

They develop practical skills such as map reading, note-taking, and using surveying equipment.

Field trips promote teamwork and communication as students work together to complete assigned tasks during the visit.

16. Examine how inquiry mind can be developed in learners (five points).

Encouraging students to ask questions during lessons helps them become curious and engaged in learning.

Assigning research projects allows learners to investigate topics independently, fostering problem-solving skills.

Using open-ended questions in class discussions challenges students to think critically and explore multiple perspectives.

Providing opportunities for practical work and experiments encourages hands-on exploration and testing of ideas.

Offering constructive feedback on students' ideas builds confidence and motivates them to explore further.

17. Examine uses of five equipment found in the Geography room.

A globe is used to teach about the Earth's shape, continents, oceans, and relative positions of countries.

Wall maps help in studying physical and political features, climatic zones, and distribution of resources.

A compass is essential for teaching direction, navigation, and orientation during fieldwork.

Measuring tapes are used for distance measurements in practical activities such as surveying.

Projectors and visual aids are used to display maps, diagrams, and presentations, enhancing lesson clarity.

18. Explain the usefulness of a scheme of work to the Geography teacher (five points).

It helps in organizing topics logically, ensuring systematic coverage of the syllabus throughout the term or year.

The scheme of work allocates time for each topic, preventing rushed coverage at the end of the course.

It guides the selection of teaching methods and resources appropriate for each lesson.

It includes plans for assessment, ensuring continuous evaluation of student progress.

It serves as a reference document for other teachers, ensuring continuity in case of teacher absence.