THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL OF TANZANIA

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

713 **GEOGRAPHY**

(SUPPLEMENTARY)

Time: 3 Hours. **ANSWER** **Year: 2015**

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. Give four physical features typical of the rift area and one short effect of each on transport.

   Rift valley floor: Flat and wide, facilitating construction of roads and railways, easing transport.

   Escarpments: Steep slopes can hinder road construction and increase travel costs.

   Volcanic mountains: Elevation and rough terrain make road building difficult and costly.

   Lakes and rivers: Water bodies may require bridges or ferries, affecting transport routes.

2. State four demographic pressures that often lead to high fertility in town outskirts.

   Child labor for income: Families rely on children to contribute to farming or small businesses.

   Limited family planning: Lack of access to contraception leads to more births.

   High infant mortality expectations: Families may have more children anticipating some may not survive.

   Cultural expectations: Societies may value large families for social status or support in old age.

3. List four hygiene- or nutrition-related contributors to infant deaths and propose a remedy for each.

   Poor sanitation: Leads to diarrheal diseases; remedy: promote clean water and latrine use.

   Inadequate breastfeeding: Weakens immunity; remedy: encourage exclusive breastfeeding for six months.

   Malnutrition: Causes vulnerability to disease; remedy: provide vitamin supplements and nutritious foods.

   Infections due to unhygienic birth practices: Remedy: train birth attendants and improve clinic hygiene.

4. What is the main function of an angular-measuring instrument in surveying?

An angular-measuring instrument, like a theodolite, determines horizontal and vertical angles precisely, which is essential for plotting accurate maps and establishing boundaries.

5. Give four examples of businesses that use glacial soils or landforms and why they do so.

Agriculture: Fertile glacial soils support crop farming like grains and vegetables.

Tourism: Scenic valleys attract visitors for hiking, skiing, and sightseeing.

Hydropower plants: Rivers guided by glacial valleys provide sites for dam construction.

Quarrying: Glacial deposits expose sand, gravel, and stones used in construction.

6. Mention two advantages and two disadvantages of expanding accommodation services in small settlements.

Advantages: Generates income for local communities and creates employment opportunities.

Disadvantages: May lead to environmental degradation and disrupt local lifestyles and traditions.

7. (a) Offer a brief meaning of pollution.

Pollution is the introduction of harmful substances or energy into the environment that negatively affects living organisms or natural processes.

(b) Classify pollution by impact zone and list one example of each.

Local pollution: Affects nearby areas, e.g., smoke from a factory chimney impacting surrounding houses.

Regional pollution: Spreads over wider areas, e.g., acid rain affecting rivers and forests across a district.

8. (a) Define contamination briefly.

Contamination occurs when harmful chemicals or biological agents enter soil, water, or air, posing risks to humans and ecosystems.

(b) Name two routine tests used to detect water contamination.

Coliform test: Detects bacterial presence indicating fecal contamination.

pH test: Checks water acidity or alkalinity, which may signal chemical contamination.

9. Give four hydrological features necessary for a dam to be effective.

Sufficient river flow: Ensures continuous water supply for electricity generation.

Steep gradient: Provides potential energy for turbines.

Stable geology: Prevents structural failures.

Adequate catchment area: Maintains water levels throughout the year.

10. State four ways geography lessons support disaster awareness in schools.

Flood risk understanding: Students learn which areas are prone to flooding and precaution measures.

Earthquake awareness: Knowledge of fault lines prepares students to respond safely.

Volcanic activity recognition: Helps students understand eruption hazards.

Weather pattern analysis: Enables preparation for storms and climate-related disasters.

SECTION B (40 Marks)

Answer two (2) questions from this section.

11. Explain four analytical techniques students learn in geography and give one workplace use for each.

Map interpretation: Understanding topography; useful in urban planning.

Statistical analysis: Analyzing rainfall data; used in agriculture planning.

Field observation: Recording landforms; applicable in environmental management.

GIS mapping: Combining spatial data; relevant in resource management.

12. (a) What are teaching supports?

Teaching supports are materials, tools, and resources such as maps, charts, models, and GPS devices that help teachers explain geographical concepts effectively.

(b) Give three benefits and two limitations of hands-on model maps in class.

Benefits:

Enhance spatial understanding and visualization of terrain.

Engage students actively in lessons.

Allow exploration of scale and perspective.

Limitations:

Models can be expensive to make or buy.

Require storage space and maintenance.

13. Evaluate four methods for recording field observations in terms of cost and clarity.

Field notebooks: Cheap, portable, but handwriting may be unclear.

Sketch maps: Low-cost, visual representation, but may lack scale accuracy.

Photography: Clear and detailed, but requires camera equipment.

Digital sensors/GPS: High precision, but expensive and needs training.

14. Discuss four functions of a syllabus in guiding classroom pacing and assessment.

Sequence topics: Ensures logical teaching order.

Allocate time: Helps teachers distribute lesson hours effectively.

Assessment planning: Guides types of exams and exercises to match objectives.

Resource preparation: Identifies required maps, charts, and equipment for each lesson.

SECTION C (20 Marks)

Answer two (2) questions from this section.

15. (a) Define a lesson outline.

A lesson outline is a structured plan showing the objectives, content, learning activities, and assessment methods for a single class session.

(b) Prepare a 45-minute outline on "Rotation effects: tides and sunlight", include starter, main activity, and mini-assessment.

Starter (5 min): Ask students to observe shadows and sunlight directions.

Main activity (30 min): Demonstrate rotation using a globe and flashlight; students predict tides and sunlight patterns.

Mini-assessment (10 min): Students explain why tides vary in different regions and relate sunlight angle to daytime length.

16. Provide four methods to train students in using measuring tapes and clinometers, with an example for each.

Demonstration: Teacher shows how to measure slope with a clinometer.

Practice session: Students measure a hill's length and angle in groups.

Peer observation: Students check each other's technique for accuracy.

Recorded tasks: Students submit measurement tables for teacher review.

17. Build a short Think-Pair-Share session for teaching profile drawing from contours, include timing and success criteria.

    Think (5 min): Students individually sketch a slope profile from a small contour map.

    Pair (10 min): Compare sketches with partners and discuss discrepancies.

    Share (10 min): Present a combined profile to the class; teacher confirms correct interpretation.

    Success criteria: Accurate slope and height representation, correct labeling of features.

18. List four reasons formative checks help teachers, and name one simple instrument to carry out each check.

    Identify misconceptions: Oral questioning during lessons.

    Monitor progress: Short written quizzes.

    Provide feedback: Peer review of field sketches.

    Adjust teaching pace: Observation of student participation in practical exercises.