THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL OF TANZANIA

DIPLOMA IN SECONDARY EDUCATION EXAMINATION

713 **GEOGRAPHY**

(SUPPLEMENTARY)

Time: 3 Hours. **ANSWER** **Year: 2019**

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. Name four landform classes in the inland plateau and indicate one resource associated with each.

   Plateaus: Broad elevated flatlands provide fertile soils suitable for cereal farming and grazing livestock.

   Valleys: Low-lying depressions often contain rivers and streams, making them ideal for irrigation and freshwater fisheries.

   Hills: Rolling or isolated hills are frequently mined for construction materials such as sand and gravel, and sometimes host small-scale orchards.

   Escarpments: Steep slopes separate plateau levels and can be used for hydroelectric potential or tourism, while also influencing microclimates for specialized agriculture.

2. Mention four family-level reasons why households may remain large in semi-urban zones.

   Cultural preference for male children encourages families to have more children to ensure sons are born.

   Economic reliance on children for household chores or small-scale trading provides extra labor and income, encouraging larger families.

   Security in old age motivates parents to have many children, expecting that at least some will care for them later.

   Social status may be linked to family size, with larger households seen as prestigious within some communities.

3. Give four environmental conditions that can escalate infant mortality and a preventive action for each.

   Poor sanitation contributes to diarrheal diseases; improving latrines and water hygiene reduces infection risk.

   Lack of clean drinking water leads to waterborne illnesses; providing safe water sources and boiling or filtering water mitigates this.

Overcrowded housing spreads infectious diseases; encouraging better housing spacing and ventilation can reduce exposure.

Indoor air pollution from cooking fuels increases respiratory illnesses; promoting cleaner fuels like LPG or improved stoves can lower infant deaths.

4. Define the purpose of precise distance measuring tools in survey exercises.

Precise measuring tools, such as electronic distance meters (EDMs) or total stations, allow surveyors to obtain accurate linear measurements over various terrains, minimizing cumulative errors that can occur with pacing or chain measurements, and providing data suitable for engineering, mapping, and planning purposes.

5. List four trades or services that benefit from valleys carved by ancient ice and state why.

Hydropower generation uses river courses shaped by glaciation, which often have steep gradients suitable for turbines.

Agriculture benefits from fertile valley soils deposited by glacial till, supporting crops like cereals and vegetables.

Tourism thrives in scenic glacial valleys that attract hikers and sightseers.

Transportation and trade routes utilize valley corridors because they provide easier gradients compared with surrounding hills, reducing construction and maintenance costs for roads or railways.

6. Provide two economic gains and two cultural costs linked to rapid resort growth.

Economic gain: Increased employment for locals in hotels, restaurants, and entertainment services.

Economic gain: Enhanced revenue from tourism taxes, boosting district-level development budgets.

Cultural cost: Traditional lifestyles may be disrupted as younger generations adopt new consumption patterns or migrate to resort-related jobs.

Cultural cost: Sacred or culturally important sites may be altered or restricted due to resort expansion.

7. (a) Write a short definition of contaminant.

A contaminant is any substance—chemical, biological, or physical—that adversely affects the natural environment or human health when introduced into air, water, or soil.

7. (b) Provide two classifications used when reporting contamination and a one-line example for each.

By source: Industrial contamination, e.g., effluent discharge from a factory.

By medium: Water contamination, e.g., faecal matter entering a river.

8. (a) Define pollutant briefly.

A pollutant is any agent, such as a chemical or particulate, that degrades environmental quality and can cause harm to humans, plants, or animals.

8. (b) List two instruments used to measure air quality.

Particulate matter sensors that measure dust and soot concentrations.

Gas analyzers that detect levels of pollutants like carbon monoxide or nitrogen dioxide.

9. Give four site or technical requirements necessary for exploiting river energy.

Reliable water flow, with minimal seasonal interruptions, ensures continuous energy generation.

Sufficient river gradient to allow gravitational potential energy to drive turbines efficiently.

Stable riverbanks and geology to support dam or turbine infrastructure.

Accessibility for construction and maintenance, including roads and transmission lines to deliver generated electricity.

10. State four ways geography lessons help students understand land-use conflicts.

Geography develops spatial awareness, helping students map competing land uses such as agriculture, conservation, and settlements, making conflicts visible.

It teaches resource evaluation, enabling learners to understand why certain land uses are more productive or sustainable than others.

Geography highlights stakeholder interests, allowing students to analyze perspectives of farmers, businesses, and government authorities in land disputes.

It promotes critical thinking and negotiation skills, encouraging students to suggest compromise solutions such as rotational grazing or zoning to reduce clashes.

SECTION B (40 Marks)

Answer two (2) questions from this section.

11. Describe four data-handling skills students obtain from geography and give one professional application for each.

Data collection: Students learn to gather accurate field measurements, useful in urban planning projects or environmental surveys.

Data organization: Compiling field notes, maps, and tables teaches record-keeping skills for government or NGO reports.

Data analysis: Interpreting trends, such as rainfall or crop yields, supports agronomy or climate consultancy work.

Data presentation: Creating charts, maps, or diagrams communicates findings to stakeholders, relevant for policy advocacy or research publications.

12. (a) What are pupil aids in geography teaching?

Pupil aids are materials designed to assist learners in understanding concepts, conducting fieldwork, or interpreting data; examples include printed maps, atlases, measuring tools, protractors, and illustrative charts.

12. (b) Give two benefits and one limitation of using locally made models in lessons.

Benefits: They are low cost and accessible, making learning inclusive even in poorly funded schools.

They provide hands-on experience, helping learners visualize topography, drainage, and settlement patterns.

Limitation: They may lack precise scale and accuracy, which could lead to misconceptions if not supplemented with accurate diagrams or measurements.

13. Critically assess four ways of recording spatial information in classroom projects and suggest the best for limited budgets.

Field notebooks allow detailed qualitative recording but may vary in clarity across students.

Sketch maps are inexpensive, encourage creativity, but might lack exact measurements.

Digital sensors give precise data but are costly and dependent on electricity and internet.

Structured tables standardize information and allow easy comparison; for low-budget settings, combining tables with sketches provides clarity and practicality.

14. Discuss four advantages a detailed syllabus gives to substitute teachers.

Provides a clear roadmap of topics and objectives, ensuring the substitute covers essential content.

Outlines assessments and deadlines, allowing continuity in testing and student evaluation.

Specifies required teaching materials, helping the substitute prepare or improvise effectively.

Maintains progression across classes, so learners do not lose momentum if the regular teacher is absent.

SECTION C (20 Marks)

Answer two (2) questions from this section.

15. (a) Define a lesson sketch.

A lesson sketch is a brief teaching plan outlining objectives, main activities, resources, timing, and assessment points to guide instruction.

15. (b) Prepare a 45-minute sketch plan for Form One on "Daily rotation and clocks", include a short assessment.

Objectives: Students will describe Earth's rotation and relate it to observable time changes.

Starter (5 min): Ask learners to recall what times shadows change direction.

Main activity (30 min): Demonstrate rotation with a globe and lamp (10 min); have students chart shadow movement in the school compound (20 min).

Assessment (10 min): Students answer a short question linking shadow movement to rotation direction and time measurement.

16. Offer four techniques to develop students' map-measuring skills and give a classroom activity for each.

Scale reading: Practice converting map distances to real distances using rulers and map scales.

Distance estimation: Walk or pace a known distance and compare to map distances.

Direction finding: Use compasses to plot bearings between two points on a map.

Area calculation: Use grid overlay to estimate land areas, reinforcing measurement accuracy.

17. Draft a Think-Pair-Share activity to teach slope estimation from contour spacing, include time allocations.

Think (5 min): Individually, students examine contour spacing and estimate slope steepness.

Pair (10 min): Compare estimates with a partner and discuss reasoning.

Share (10 min): Pairs present results; teacher demonstrates correct method.

Assessment (5 min): Students calculate actual slope using a formula for one sample area and report results.

18. Explain four functions of assessment in shaping future lessons and name one quick tool for each function.

Monitoring understanding: Spot quizzes reveal which concepts require reteaching.

Guiding instruction: Observation checklists during exercises indicate where to allocate more practice time.

Encouraging reflection: Student journals show thought processes and highlight gaps in knowledge.

Evaluating skill acquisition: Practical exercises, such as measuring angles or plotting maps, assess hands-on competence; teacher can use simple scoring sheets.