

**THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATION COUNCIL OF TANZANIA
DIPLOMA IN SECONDARY EDUCATION EXAMINATION**

713

GEOGRAPHY

Time: 3 Hours.

ANSWER

Year: 2018 a.m.

Instructions

1. This paper consists of sections A, B and C with a total of **sixteen (16)** questions.
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).

maktaba.tetea.org



1. (a) Briefly describe the following as used in Geography:

- (i) Wind energy
- (ii) Biogas
- (iii) Geothermal energy

Wind energy is the power obtained from moving air masses. It is harnessed using wind turbines that convert the kinetic energy of wind into mechanical or electrical energy. Wind energy is a renewable source and is commonly used in electricity generation, water pumping, and grain milling in various parts of the world.

Biogas is a type of biofuel that is produced through the anaerobic decomposition of organic matter such as animal dung, crop residues, and kitchen waste. The process occurs in the absence of oxygen, producing a mixture of methane and carbon dioxide which can be used for cooking, heating, and generating electricity. Biogas reduces dependence on fossil fuels and helps manage organic waste effectively.

Geothermal energy is the heat energy found within the Earth's crust. It is harnessed by tapping into hot water reservoirs or steam located underground, which can be brought to the surface through wells to drive turbines for electricity generation. Geothermal energy is renewable, reliable, and environmentally friendly, but is mainly found in volcanic and tectonically active regions.

(b) Why is population growth considered an asset? Give three points with examples.

Population growth increases the labor force which is essential for economic development. A larger workforce provides industries, farms, and service sectors with enough human resources to carry out production activities efficiently. For example, in manufacturing, more workers enable higher productivity.

It stimulates market expansion as a larger population increases demand for goods and services. This motivates entrepreneurs to invest in production, which in turn boosts economic growth. For instance, a growing population in urban centers leads to increased demand for housing and transport services.

Population growth encourages innovation and creativity as more people bring diverse skills and ideas. This diversity can lead to the development of new technologies, improved production methods, and creative problem-solving in various sectors such as agriculture, education, and business.

2. Outline four environmental problems faced by Tanzania.

Deforestation is a major problem caused by excessive cutting down of trees for fuel, construction materials, and agricultural expansion. This leads to loss of biodiversity, soil erosion, and reduced rainfall.

Soil erosion occurs due to poor farming methods, overgrazing, and deforestation. It reduces soil fertility and agricultural productivity, making it harder to sustain food production.

Pollution, both air and water, is a growing concern in Tanzania. Industrial activities, improper waste disposal, and vehicle emissions degrade environmental quality and harm human health.

Loss of wildlife habitats is another issue, mainly caused by human encroachment, poaching, and infrastructure development. This reduces the population of certain animal species and affects tourism which relies heavily on wildlife conservation.

3. Give four disadvantages of nomadic pastoralism.

It leads to overgrazing in certain areas as animals feed on the same pasture repeatedly. This depletes vegetation cover, causing land degradation and desertification.

Nomadic pastoralism makes it difficult to access social services such as education and healthcare because pastoralists frequently move from place to place. This results in lower literacy levels and poor health conditions among communities.

The system is vulnerable to drought and other climatic changes. When water and pasture become scarce, livestock mortality rates increase, leading to economic losses for the pastoralists.

Conflicts over grazing land and water sources often occur between nomadic pastoralists and other land users such as farmers. These disputes can escalate into violence, disrupting community peace.

4. Describe the following geographical phenomena:

- (a) Rift valley
- (b) Fault scarp
- (c) Block mountains
- (d) Earthquakes

A rift valley is a long, narrow depression in the Earth's surface formed when the crust is pulled apart by tectonic forces, causing large blocks of land to sink between parallel faults. An example is the Great Rift Valley in East Africa.

A fault scarp is a steep slope or cliff formed by vertical displacement along a fault line. It results from the movement of rock blocks during faulting, leaving one side elevated relative to the other.

Block mountains are large uplifted blocks of the Earth's crust bounded by faults. They form when tensional or compressional forces cause the land to fracture and some blocks rise while others sink, creating elevated areas such as the Rwenzori Mountains.

Earthquakes are sudden and violent shaking of the ground caused by the release of energy from the Earth's crust, usually along fault lines. They can cause severe destruction to buildings, infrastructure, and human lives.

5. List four shortcomings of air transport.

It is very expensive to operate and maintain compared to other modes of transport. High fuel costs, aircraft maintenance, and airport infrastructure require significant investment.

Air transport is highly dependent on weather conditions. Bad weather such as storms, heavy rain, or fog can cause flight delays or cancellations, disrupting schedules.

It has limited carrying capacity for bulky and heavy goods, making it unsuitable for transporting large volumes of cargo.

The risk of accidents, although rare, can be catastrophic. Plane crashes often result in high fatalities and significant property loss.

6. Briefly analyse four effects of earthquakes on the environment.

Earthquakes can cause ground shaking, leading to the destruction of buildings, roads, and bridges. This affects human settlement and disrupts economic activities.

They may trigger landslides in mountainous regions, which can bury settlements, block roads, and damage farmlands.

Earthquakes can cause changes in landforms such as the creation of cracks, fissures, and fault lines. These changes alter drainage patterns and may create new water bodies.

In coastal areas, earthquakes can generate tsunamis, which cause massive flooding, loss of life, and destruction of property along the shorelines.

7. With the aid of diagrams, describe dendritic and trellis drainage patterns.

A dendritic drainage pattern resembles the branching of a tree, with tributaries joining the main river at various angles. It develops in regions with uniform rock structure where water follows the slope of the land.

A trellis drainage pattern is characterized by parallel main streams connected by short tributaries at right angles. It develops in areas with alternating bands of hard and soft rocks, often in folded or tilted landscapes.

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

An atlas provides a variety of maps in one book, allowing easy reference for different geographical features such as physical, political, and climatic maps.

It helps in visual learning, enabling students to understand spatial relationships and locations more effectively than verbal descriptions alone.

An atlas is portable and convenient to use, making it easy for both teachers and students to access geographical information during lessons and fieldwork.

9. Outline four important factors to consider when choosing a teaching method for practical Geography lessons.

The nature of the topic should be considered, as some topics require fieldwork, while others can be effectively taught using models, maps, or demonstrations.

Availability of resources is important, since certain methods such as laboratory experiments or mapwork require specific materials and equipment.

The number of students in the class influences the choice of method. Large classes may require methods like group discussions, while smaller classes can benefit from individual assignments or field trips.

The time available for teaching also matters, as some methods like field excursions need more time compared to classroom-based teaching.

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

A Geography textbook provides structured and organized content that aligns with the curriculum, ensuring that all necessary topics are covered.

It serves as a reliable reference for both teachers and students, offering detailed explanations, examples, and illustrations for better understanding.

Textbooks often include review questions, exercises, and activities that help reinforce learning and assess students' comprehension.

11. Examine five factors which have influenced the development of manufacturing industries in South Korea.

Availability of skilled labour has greatly contributed to South Korea's manufacturing growth. The country invested heavily in education and technical training, producing a workforce capable of operating advanced machinery and adopting new technologies.

Government support through industrial policies, subsidies, and incentives encouraged rapid industrialization. These policies created a favorable environment for domestic industries and attracted foreign investors.

Advanced infrastructure, including modern ports, roads, and power supply, has facilitated efficient transportation of raw materials and finished goods, supporting manufacturing operations.

Adoption of modern technology and innovation has allowed South Korean industries to produce high-quality goods, compete internationally, and maintain high productivity levels.

Access to international markets through trade agreements has expanded the country's export base. This has encouraged the growth of manufacturing sectors such as electronics, automobiles, and shipbuilding.

12. Explain five ways to combat soil erosion in Tanzania.

Afforestation and reforestation help to bind the soil with tree roots, reducing the impact of wind and water erosion. Planting trees also improves soil structure and fertility.

Contour farming involves ploughing along the contours of the land rather than up and down slopes. This slows down water runoff and reduces soil loss.

The use of cover crops such as legumes protects the soil surface from direct impact of raindrops and wind, while also adding organic matter to the soil.

Construction of terraces on steep slopes helps to create flat surfaces that slow down water flow, reducing erosion and increasing water infiltration.

Educating farmers on sustainable land management practices encourages the adoption of methods that protect the soil, such as crop rotation and minimal tillage.

13. Assess five impacts of population growth on forest resources in Tanzania.

Increased demand for fuelwood and charcoal leads to excessive cutting of trees, causing deforestation and degradation of forest ecosystems.

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

Overgrazing due to increased livestock numbers damages forest undergrowth and young tree seedlings, preventing natural regeneration.

Urbanization and infrastructure development consume large areas of forest land, further reducing forest cover.

Population pressure can lead to illegal logging and unsustainable harvesting of timber products, threatening the long-term survival of forests.

14. Elaborate on five socio-cultural factors encouraging the development of tourism in Tanzania.

The country's rich cultural heritage, including diverse ethnic groups, traditional dances, and festivals, attracts tourists seeking cultural experiences.

Historical sites such as Bagamoyo and Kilwa Kisiwani offer insights into Tanzania's past, drawing visitors interested in history.

Traditional crafts and art, including beadwork, carvings, and fabrics, appeal to tourists who wish to purchase souvenirs.

Friendly hospitality and welcoming attitudes of local communities create a positive image, encouraging repeat visits.

Religious and cultural events, such as Eid and traditional ceremonies, provide unique experiences for visitors seeking to witness or participate in local customs.

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

Field trips provide first-hand experience, allowing students to observe geographical phenomena directly, which enhances understanding.

They make learning more interesting and engaging, motivating students to participate actively.

Field trips bridge the gap between theory and practice, helping students to apply classroom knowledge to real-world situations.

They encourage teamwork and cooperation among students as they work together in data collection and reporting.

Field trips develop practical skills such as map reading, note-taking, and using field equipment, which are essential in geographical studies.

16. Critically examine five factors that support the statement that “Geography is multidisciplinary.”

Geography integrates physical sciences, as it studies natural features like landforms, climate, and ecosystems, requiring knowledge from subjects such as geology and meteorology.

It incorporates social sciences by examining human activities, settlement patterns, and economic development, linking with sociology and economics.

Geography uses mathematical skills in areas such as cartography, statistical analysis, and geographical information systems (GIS).

It involves environmental science through the study of resource management, conservation, and human impacts on ecosystems.

Geography applies historical knowledge when analyzing past events and their influence on current landscapes and human activities.