THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

ADVANCED CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

113/2   **GEOGRAPHY 2**

(For Both School and Private Candidates)

Time: 3 Hours   **ANSWERS**   **Year: 2015**

Instructions

1. This paper consists of seven questions.

2. Answer a total of five questions, question number 1 is compulsory.

1. Describe the eight problems associated with human population in East Africa.

High unemployment rates are a major issue in East Africa due to rapid population growth. Many young people struggle to find jobs, leading to poverty and economic dependence. In Kenya, for example, over 40% of young people are unemployed, forcing some into informal jobs or migration to urban areas.

Overcrowding in urban centers results from rural-to-urban migration. Cities like Nairobi, Kampala, and Dar es Salaam experience congestion, leading to slums, inadequate housing, and poor sanitation. This causes health hazards such as cholera and typhoid outbreaks in informal settlements like Kibera in Nairobi.

Pressure on natural resources increases as the population expands. Deforestation, soil degradation, and water shortages occur due to high demand for agricultural land and settlements. The Mau Forest in Kenya has been severely degraded due to illegal settlements, affecting water supply to lakes such as Lake Victoria.

Food insecurity arises because agricultural production cannot keep pace with population growth. Many East Africans rely on small-scale farming, which is vulnerable to climate change. Droughts in regions like Turkana, Kenya, and Dodoma, Tanzania, lead to frequent food shortages and malnutrition.

Strain on healthcare services occurs as hospitals and clinics are overwhelmed. High birth rates mean more patients, but limited medical staff and facilities make it difficult to provide adequate care. For example, in Uganda, doctor-to-patient ratios are very low, resulting in long waiting times and poor maternal healthcare.

Environmental pollution increases due to improper waste disposal and industrial expansion. Cities like Kampala and Dar es Salaam struggle with uncollected waste, leading to blocked drainage systems, air pollution, and contamination of water sources.

Poor education services are a result of rapid population growth, as governments struggle to build enough schools and hire teachers. In Tanzania, many schools have overcrowded classrooms, with some having over 100 students per class, reducing the quality of education.

Traffic congestion worsens in major cities due to rising populations and insufficient transport systems. Roads become overloaded, leading to long commuting hours and economic inefficiencies. Nairobi's traffic congestion costs the country millions in lost productivity daily.

2. Evaluate eight priority areas of the explicit population policy in Tanzania.

Family planning and reproductive health are key focus areas to control high birth rates. The government has introduced awareness campaigns and free contraceptive services in public health centers to encourage responsible family planning.

Education and gender equality are promoted to reduce fertility rates. More girls are encouraged to complete secondary and higher education, as educated women tend to have fewer children. The government has policies preventing early marriages to help reduce teenage pregnancies.

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Urban and rural development planning aims to balance population distribution. The government is investing in infrastructure in secondary cities like Dodoma and Mwanza to reduce congestion in Dar es Salaam.

Healthcare services are being improved to reduce infant mortality and increase life expectancy. Programs such as maternal and child health initiatives help lower child mortality rates by providing free vaccinations and prenatal care.

Employment and economic empowerment programs focus on creating job opportunities, especially for young people. Tanzania has introduced industrialization policies to absorb the growing workforce into productive sectors like manufacturing and agriculture.

Environmental conservation is emphasized to prevent overuse of natural resources. Reforestation projects and land management policies are being implemented to control deforestation and land degradation caused by a growing population.

Data collection and research play a vital role in guiding population policies. Regular population censuses and surveys help policymakers make informed decisions regarding resource allocation and future planning.

Poverty reduction is addressed by improving economic opportunities, especially in rural areas. Programs like Kilimo Kwanza (Agriculture First) aim to enhance productivity and food security to support a growing population.

3. (a) Briefly explain the following concepts:

Mortality refers to the rate at which deaths occur in a population. It is influenced by factors such as disease outbreaks, healthcare availability, and living conditions. Countries with poor medical facilities often have high mortality rates.

Gender refers to the roles, behaviors, and social expectations associated with being male or female. Gender influences population policies, as improving women's rights and education can help control birth rates.

Aging population describes a society where a large percentage of people are elderly. This occurs in developed countries such as Japan, where low birth rates and high life expectancy lead to a high proportion of elderly individuals who depend on a shrinking workforce.

Age Specific Fertility Rate (ASFR) measures the number of births per 1,000 women in a specific age group. This helps in analyzing fertility trends and planning family health programs.

(b) Give six reasons why death rates in many parts of the world have become low.

Improved healthcare systems have reduced mortality rates. Vaccination programs and advanced medical treatments have decreased deaths from infectious diseases like polio and measles.

Better sanitation and hygiene practices have helped reduce diseases. Clean water supply and improved waste management prevent cholera and typhoid outbreaks.

Nutritional improvements have lowered deaths related to malnutrition. Food security programs and dietary awareness campaigns have reduced child mortality caused by malnutrition.

Advancements in medical technology have increased survival rates. Surgical procedures, cancer treatments, and emergency medical services have saved many lives.

Government policies on public health have improved disease control. Health insurance schemes and free maternal healthcare programs have lowered mortality rates in many countries.

Peace and political stability have reduced deaths caused by conflicts. In regions where wars and violence have declined, fewer people die due to violence and displacement.

4. Analyse eight problems facing the mining industry in Africa.

Illegal mining activities cause revenue losses and environmental destruction. In countries like Ghana and the Democratic Republic of Congo, unregulated mining leads to tax evasion and deforestation.

Poor infrastructure affects mining efficiency. Many mines are located in remote areas without proper roads, electricity, or water supply, making operations costly.

Health and safety risks are high in mining areas. Accidents, cave-ins, and exposure to harmful chemicals lead to illnesses such as lung diseases among miners.

Fluctuating global mineral prices affect the profitability of mining industries. A drop in gold or diamond prices can cause financial instability in countries dependent on mineral exports.

Corruption and mismanagement in the mining sector lead to resource misallocation. Some government officials and private companies engage in illegal deals, reducing the benefits for local populations.

Land conflicts occur between mining companies and local communities. In Tanzania, disputes over land ownership in mining regions such as Geita have led to tensions between companies and villagers.

Environmental degradation is a major problem. Mining operations cause deforestation, water pollution, and destruction of wildlife habitats, affecting ecosystems.

Limited technology and investment slow down industrial development. Many African countries rely on outdated mining equipment, reducing efficiency and production capacity.

5. Describe five environmental problems caused by forestry and give four possible ways for forest sustainability.

Deforestation leads to habitat destruction and biodiversity loss. Clearing forests for timber and agriculture reduces wildlife populations and disrupts ecosystems.

Soil erosion increases when trees are removed. Without vegetation, rainwater washes away fertile topsoil, reducing agricultural productivity.

Climate change worsens as fewer trees absorb carbon dioxide. Deforestation contributes to global warming and rising temperatures.

Water cycle disruption occurs when forests are cleared. Trees play a crucial role in maintaining rainfall patterns and groundwater replenishment.

Desertification expands when forests are destroyed. Regions with high deforestation rates, like the Sahel in Africa, face increased drought conditions.
Sustainable forestry practices include tree replanting to replace harvested trees. Programs like Tanzania's "Green Belt Movement" promote reforestation efforts.

Selective logging can minimize environmental damage by only cutting mature trees while preserving younger ones.

Forest conservation policies should regulate logging activities and establish protected areas to prevent illegal deforestation.

Community involvement in forest management encourages local participation in conservation efforts, ensuring long-term sustainability.

6. Describe six factors that make the fishing industry in Russia highly developed.

Russia has vast and diverse water bodies that provide an abundant supply of fish. The country has access to major water sources, including the Arctic Ocean, Pacific Ocean, and the Caspian Sea, as well as large rivers like the Volga and Lena. These water bodies support both marine and freshwater fishing, making Russia one of the largest fish-producing nations in the world.

The presence of cold water temperatures in many Russian seas and lakes enhances fish productivity and quality. Cold-water fish such as cod, herring, and salmon thrive in these conditions, allowing Russia to export high-value seafood products to global markets. Additionally, the cold climate helps preserve fish for longer periods, reducing post-harvest losses.

Russia has heavily invested in modern fishing fleets and technology, which increases efficiency in fish harvesting and processing. Advanced fishing vessels equipped with refrigeration, sonar tracking, and

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automatic sorting systems allow Russian fisheries to operate on a large scale. The use of industrial fish processing plants also ensures high-quality packaging and export of seafood products.

Government policies and support play a crucial role in the success of the Russian fishing industry. The Russian government provides subsidies, tax incentives, and infrastructure development to support fisheries. Additionally, fishing regulations and quotas ensure sustainable fishing practices, preventing overfishing and protecting marine resources for future generations.

The country has a strong seafood export market, with well-established trade relations with countries such as China, Japan, and the European Union. Russia is a major supplier of fish and seafood products to international markets, generating significant foreign exchange earnings. The demand for Russian fish products continues to grow, further stimulating the expansion of the industry.

Russia has developed efficient transport and storage facilities for fish distribution. The country has an extensive railway network and refrigerated transport systems that facilitate the movement of fish from coastal fishing zones to inland processing centers and markets. Additionally, major ports like Vladivostok and Murmansk serve as key hubs for seafood exports.

7. Elaborate four problems facing cassava production in Tanzania and suggest four ways to promote this crop.
Cassava production in Tanzania faces frequent pest and disease outbreaks that reduce yields. The most common threats include Cassava Mosaic Disease (CMD) and Cassava Brown Streak Disease (CBSD), which cause severe damage to crops, leading to significant losses for farmers. These diseases spread rapidly in infected plants, making it difficult for farmers to maintain healthy crops.

Unreliable rainfall and climate change negatively impact cassava farming. Although cassava is relatively drought-resistant, extreme weather conditions such as prolonged dry seasons and heavy rains can reduce its productivity. In some regions, poor water availability leads to stunted growth, while excessive rainfall causes root rot, further affecting yield.

Limited access to improved planting materials and farming inputs hinders cassava production. Many small-scale farmers rely on traditional planting methods and low-yielding local varieties, which are more vulnerable to diseases and produce lower harvests. Additionally, the lack of fertilizers and pesticides makes it difficult to improve soil fertility and protect crops from pests.

Poor market access and inadequate value addition limit the profitability of cassava farming. Many farmers lack proper storage facilities and transportation networks to sell their produce at competitive prices. In some cases, cassava farmers face price fluctuations due to market instability, discouraging large-scale production. Additionally, most cassava is sold in raw form instead of being processed into value-added products such as flour and starch.

To promote cassava production in Tanzania, the government and agricultural organizations should introduce disease-resistant cassava varieties. Research institutions such as the Tanzania Agricultural

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Research Institute (TARI) should develop and distribute high-yielding, disease-resistant cassava seeds to improve productivity.

Irrigation schemes should be developed to ensure stable water supply during dry seasons. Investing in modern irrigation systems, such as drip and sprinkler irrigation, can help farmers maintain consistent production and reduce reliance on unpredictable rainfall patterns.

Training and capacity-building programs should be implemented to educate farmers on improved cassava farming techniques. Government extension officers should provide guidance on soil management, pest control, and proper harvesting methods to increase yields.

Value addition and market linkages should be strengthened to enhance cassava profitability. Establishing cassava processing industries for flour, ethanol, and animal feed can create more market opportunities. Additionally, improving road infrastructure and establishing cooperatives can help farmers access better prices and expand their customer base.

8. "Tanzania has great potential for the iron and steel industry." Identify these potentials and explain seven steps Tanzania should take to develop this industry.

Tanzania has abundant iron ore reserves, particularly in regions such as Liganga in Njombe and Uluguru in Morogoro. These deposits provide a strong foundation for developing an iron and steel industry, reducing the need for imports and enhancing local industrial production.

The country has significant coal reserves in regions like Mchuchuma, which can be used as an energy source for steel production. The availability of coal for smelting iron ore into steel ensures self-sufficiency in energy supply, making steel production cost-effective.

Tanzania's growing construction and infrastructure sectors create a high demand for steel products. As the government invests in projects like the Standard Gauge Railway (SGR), roads, and bridges, there is an increasing need for locally produced steel, providing a reliable market for the industry.

The country's geographical location allows for easy export of steel products to neighboring countries such as Kenya, Uganda, Rwanda, and the Democratic Republic of Congo. By developing a strong steel industry, Tanzania can become a regional supplier of iron and steel materials.

To develop the iron and steel industry, Tanzania should first establish large-scale mining operations to fully utilize its iron ore deposits. The government should attract foreign and local investors to develop modern iron extraction and processing facilities.

The country should invest in modern steel manufacturing plants. Establishing high-tech steel mills with advanced smelting and rolling technology will enhance efficiency and reduce production costs.

Infrastructure development is essential for supporting the steel industry. Expanding transport networks, including roads and railways, will facilitate the movement of raw materials and finished steel products, reducing logistical challenges.

Tanzania should implement policies that encourage local production and reduce steel imports. Tariffs and trade regulations should promote the use of domestically produced steel in government projects and private sector developments.

Skilled labor development is necessary to ensure the success of the steel industry. Technical training institutions and universities should offer specialized courses in metallurgy, engineering, and industrial manufacturing to produce a competent workforce.

The government should foster partnerships with international steel manufacturers. Collaborating with global steel companies can provide technical expertise, investment capital, and market access for Tanzanian steel products.

Environmental sustainability should be integrated into steel production. The industry should adopt eco-friendly technologies and recycling programs to minimize environmental pollution and ensure responsible use of natural resources.

By implementing these steps, Tanzania can harness its iron and steel potential, reducing reliance on imports, creating employment opportunities, and driving economic growth in the manufacturing sector.