THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATION COUNCIL OF TANZANIA

FORM TWO NATIONAL ASSESSMENT

013 **GEOGRAPHY**

Time: 2:30 Hours **ANSWERS** **Tuesday, 14th November2017.**

Instructions

1. This paper consists of sections A, B, and C.
2. Answer **all** questions in the spaces provided.
3. Section A and C carry **fifteen (15)** marks each and section B carries **seventy (70)** mark s.
4. All writings must be in **blue** or **black** ink.
5. Communication devices and any unauthorized materials are **not** allowed in the assessment room.
6. Write your **Assessment Number** at the top right hand corner of every page.

1. For each of the following items (i-x), choose the correct answer from the given alternatives and write its letter in the box provided.

(i) All meridians pass through
A. the North and South Poles
B. the East and West poles
C. the Latitudes and Longitudes
D. the Greenwich meridian.
Answer: A (the North and South Poles)
All meridians converge at the North and South Poles, forming a half-circle around the globe.

(ii) Which one of the following are Block Mountains?
A. Usambara, Sinai, and Himalaya
B. Andes, Atlas, and Usambara
C. Usambara, Ruwenzori, and Sinai
D. Elgon, Uluguru, and Usambara.
Answer: C (Usambara, Ruwenzori, and Sinai)
Block mountains are formed due to faults or fractures in the Earth's crust, creating uplifted blocks such as the Ruwenzori and Usambara ranges.

(iii) A climate located between 5° North and 5° South of the Equator is called
A. Savannah
B. Hot desert
C. Equatorial Monsoon
D. Equatorial.
Answer: D (Equatorial)
The equatorial climate is found close to the equator, characterized by high temperatures and heavy rainfall throughout the year.

(iv) Large-scale crop cultivation is normally characterized by
A. application of low technology
B. monoculture system
C. poor storage facilities
D. shifting cultivation.
Answer: B (monoculture system)
Large-scale crop cultivation often involves monoculture, where one type of crop is grown extensively for commercial purposes.

(v) Which one of the following human activity is mostly affected by climate?
A. Fishing
B. Mining
C. Manufacturing
D. Farming.

Answer: D (Farming)
Farming relies heavily on climatic conditions such as rainfall, temperature, and sunlight, which determine crop yield.

(vi) A scale of a map is said to be enlarged when
A. its denominator is increased
B. its denominator and numerator are the same
C. its denominator is reduced
D. its numerator is increased.
Answer: C (its denominator is reduced)
Reducing the denominator increases the scale, making the map appear larger and more detailed.

(vii) The process whereby water vapor is turned into water droplets is called
A. evaporation
B. condensation
C. saturation
D. transpiration.
Answer: B (condensation)
Condensation occurs when water vapor cools and turns into liquid water droplets, forming clouds or dew.

(viii) Metallurgical industries deal with
A. machinery
B. jewelry
C. textile
D. food products.
Answer: A (machinery)
Metallurgical industries focus on processing metals and producing machinery, tools, and equipment.

(ix) Hot deserts are characterized by
A. small range of temperature
B. two peaks of annual rainfall
C. large range of temperature
D. high temperature during the day and night.
Answer: D (high temperature during the day and night)
Hot deserts experience extreme heat during the day and warm temperatures at night, with little variation.

(x) The land of East Africa is mainly characterized by
A. lowlands' valley
B. highlands plateau and lowlands basin
C. volcanic mountains and residues mountains
D. highlands and fold mountains.

Answer: C (volcanic mountains and residues mountains)
East Africa is known for its volcanic features, including Mount Kilimanjaro and Mount Kenya, along with eroded residual mountains.

2. Match each item in List A with responses in List B by writing the letter of the correct response below the number of the corresponding item in the table provided.
List A
(i) The movement of the earth around the sun.
(ii) It occurs when the moon passes between the sun and the earth.
(iii) The angular distance north or south of the equator.
(iv) Occurs on 21st June when the sun is vertically overhead on the tropic of cancer.
(v) Divides the earth into two equal hemispheres.

List B
A. Rotation of the earth
B. Latitude
C. Winter solstice
D. Lunar eclipses
E. Revolution
F. Equator
G. Solar eclipses
H. Summer solstice

Answers
(i) E (Revolution)
(ii) G (Solar eclipses)
(iii) B (Latitude)
(iv) H (Summer solstice)
(v) F (Equator)

3. In each of the following items (i-x), write TRUE if the statement is correct or FALSE if the statement is not correct.

(i) Ocean trenches are also known as submarine plateaus.
FALSE
Ocean trenches are deep depressions on the ocean floor, while submarine plateaus are elevated flat regions.

(ii) Equator is not the Great Circle.
FALSE
The Equator is the largest great circle, dividing the Earth into the Northern and Southern Hemispheres.

(iii) An eclipse is described as partial when only a part of a heavenly body is obscured.
TRUE

A partial eclipse occurs when only part of the sun or moon is covered by the Earth's or moon's shadow.

(iv) Maximum thermometer records both maximum and minimum temperature within a day.
FALSE
A maximum thermometer records only the highest temperature of the day, while a minimum thermometer records the lowest.

(v) Grid reference and bearing are used to determine the position of a place on a map.
TRUE
Grid reference provides exact coordinates, and bearings give directional angles, helping locate positions on a map.

(vi) A scale helps the map interpreters to calculate distance, area, and computation of other facts.
TRUE
Map scales allow users to measure distances and calculate areas accurately.

(vii) Ocean currents are set in motion by prevailing winds.
TRUE
Prevailing winds are a primary driver of ocean currents by transferring energy to the water's surface.

(viii) Juvenile water is also referred to as underground water.
FALSE
Juvenile water originates from deep within the Earth's mantle and is not the same as groundwater.

(ix) Circumnavigation of the earth is not among the evidence to prove that the earth is spherical.
FALSE
Circumnavigation is one of the key pieces of evidence proving the Earth's spherical shape.

(x) Uncontrolled deforestation does not expose soil to erosion and extinction of fauna and flora species.
FALSE
Uncontrolled deforestation leads to soil erosion and threatens biodiversity by destroying habitats.

4. (a) Mention five sources of water in Tanzania.

- Rivers: Major rivers such as the Rufiji, Pangani, and Ruvuma provide essential water for domestic, agricultural, and industrial use.
- Lakes: The country is home to significant lakes, including Lake Victoria, Lake Tanganyika, and Lake Nyasa, which serve as crucial water sources for surrounding communities.
- Groundwater: Aquifers beneath the surface supply water through wells and boreholes, especially vital in arid and semi-arid regions.
- Rainwater: Seasonal rainfall is harvested and stored for various uses, particularly in rural areas lacking consistent access to other water sources.

- Springs: Natural springs contribute to the water supply, especially in highland areas, offering fresh water for local populations.

(b) Mention five uses of water.

Water is indispensable for numerous activities that sustain life and drive economic development.

- Domestic Use: Essential for drinking, cooking, cleaning, and sanitation, ensuring public health and well-being.
- Agriculture: Vital for irrigation, supporting crop cultivation and livestock farming, which are central to Tanzania's economy.
- Industrial Processes: Used in manufacturing, mining, and energy production, facilitating industrial growth and economic progress.
- Hydropower Generation: Rivers and dams are harnessed to produce electricity, contributing to the national power supply.
- Recreation and Tourism: Water bodies offer opportunities for activities like fishing, boating, and attract tourists, boosting the hospitality sector.

(c) Briefly describe the following terms:

(i) Hydrological cycle. The hydrological cycle, also known as the water cycle, describes the continuous movement of water on, above, and below the Earth's surface. This cycle includes processes such as evaporation, condensation, precipitation, infiltration, and runoff, playing a crucial role in distributing and recycling Earth's water resources.

(ii) Water conservation. Water conservation is the practice of managing and using water resources efficiently to prevent wastage and ensure sustainable availability. This involves strategies like reducing water loss, recycling wastewater, implementing efficient irrigation techniques, and promoting water-saving habits among individuals and industries.

(iii) Water pollution. Water pollution refers to the contamination of water bodies (e.g., rivers, lakes, oceans, groundwater) due to harmful substances introduced by human activities. Pollutants such as chemicals, waste products, and pathogens degrade water quality, posing risks to ecosystems, human health, and the environment.

5. (a) Outline five evidences to verify that the Earth is spherical.

- Photographs from Space: Images captured by satellites and astronauts clearly depict Earth as a round sphere.
- Circumnavigation: Travelers and explorers have journeyed around the world, returning to their starting points, which is possible only on a spherical planet.
- Horizon Observation: Ships and objects disappear from view bottom first when moving away, indicating a curved surface.

- Lunar Eclipse: During a lunar eclipse, Earth casts a round shadow on the Moon, reflecting its spherical shape.
- Variation in Star Constellations: Different constellations are visible from various latitudes, suggesting a curved Earth surface.

4. (b) Briefly describe the following features of the continents.

(i) Basin. A basin is a low-lying area of land, typically surrounded by higher land, where water collects. Basins can be formed through tectonic activity, erosion, or other geological processes and often contain rivers, lakes, or wetlands.

(ii) Plateau. A plateau is an elevated flat area that rises sharply above the surrounding terrain. Plateaus are formed by volcanic activity, uplift of Earth's crust, or erosion and are characterized by relatively level surfaces.

(iii) Valley. A valley is a low area between hills or mountains, often with a river running through it. Valleys are typically formed by erosion from river activity or glacial movements and can vary in shape and size.

(c) Differentiate the following terms.

(i) Meteors and satellites. Meteors are small celestial objects that enter Earth's atmosphere, burning up and producing a streak of light known as a "shooting star." Satellites, on the other hand, are objects placed in orbit around Earth or another planet, either naturally (like moons) or artificially (like communication satellites).

(ii) Sea and lake. A sea is a large body of saltwater, often connected to an ocean and partially enclosed by land. A lake is a sizable inland body of freshwater or saltwater, completely surrounded by land and not directly connected to the world's oceans.

6. (a) Outline four ways of determining direction of a place on a map.

- Compass Rose: A diagram on the map indicating cardinal directions (North, East, South, West) helps users orient themselves.
- Grid Lines: Latitude and longitude lines provide a coordinate system to determine precise directions and locations.
- Bearing: Measuring the angle between a reference direction (usually north) and the line connecting the observer to the target location.
- Landmarks: Using known features on the map to establish direction relative to one's current position.

(b) List four features of the Representative Fraction (RF) scale.

- Ratio Representation: Expresses the scale as a ratio (e.g., 1:50,000), indicating that one unit on the map equals a specific number of the same units on the ground.
- Unit Agnostic: The RF scale is independent of measurement units, making it universally applicable (e.g., 1 cm on the map equals 50,000 cm on the ground).
- Versatility: RF scales can be used for large or small areas without requiring conversion to different units.
- Precision: Allows detailed and accurate calculations of distances and areas on maps.

(c) Suggest two ways of measuring areas with irregular shapes.

1. Grid Method: Overlaying a grid on the area and counting the number of full and partial grid squares to approximate the area.
2. Planimeter: Using a mechanical or digital device to trace the boundary of the shape and calculate its area accurately.

7. Describe five problems that face the tourism industry in Tanzania.

The tourism industry in Tanzania faces inadequate infrastructure, including poorly developed roads, limited airports, and insufficient accommodations in remote tourist destinations. This makes it difficult for tourists to access key attractions such as national parks and cultural sites.

Environmental degradation, including deforestation, poaching, and pollution, threatens the natural ecosystems that attract tourists. This degradation reduces the appeal of Tanzania's wildlife and scenic landscapes to potential visitors.

High costs of travel and services deter many potential tourists. Flights, accommodations, and park fees are often expensive, making Tanzania less competitive compared to other tourist destinations.

Political instability and occasional security concerns, such as poaching-related conflicts, create a negative perception of safety among international tourists. This discourages travelers from choosing Tanzania as their preferred destination.

Lastly, the lack of skilled personnel and poor marketing strategies hinder the sector's ability to compete globally. Tanzania struggles to attract tourists due to limited promotion and inadequate customer service training.

8. Elaborate five challenges for the development of the mining industry in Tanzania.

The mining industry in Tanzania suffers from inadequate infrastructure, such as roads and electricity. This limits the transportation of minerals and efficient operations, particularly in remote mining areas.

Limited access to capital is another challenge, as mining projects require substantial investments for machinery, exploration, and production. Many local miners lack the financial resources to scale their operations.

Environmental concerns, including deforestation, soil erosion, and water pollution, result from mining activities. These issues spark conflicts with local communities and conservationists, slowing the sector's development.

Labor issues, including the lack of skilled workers and disputes over wages and working conditions, also affect productivity in the mining industry. These challenges lead to inefficiencies and delays in operations.

Corruption and regulatory inefficiencies create barriers for investors and undermine fair distribution of mining revenues. This discourages investment and stifles the industry's growth potential.

9. Describe five problems facing the transportation industry in East Africa.

Poor infrastructure, including deteriorated roads, limited rail networks, and insufficient port facilities, hampers the efficient movement of goods and people in East Africa. This slows down regional trade and development.

Traffic congestion, particularly in major cities like Nairobi and Dar es Salaam, causes delays in transportation and increases fuel consumption. This affects both economic activities and the daily lives of commuters.

High operational costs, including fuel prices and vehicle maintenance, make transportation expensive for businesses and individuals. This increases the cost of goods and services across the region.

Political instability and cross-border conflicts disrupt trade routes and create security concerns for transport operators. This instability hinders regional economic integration and cooperation.

Weak enforcement of traffic laws and regulations leads to frequent accidents and loss of goods. This diminishes public confidence in the transportation industry and increases the risk of financial losses.

10. Using examples, explain five problems facing livestock farming in Africa.

Livestock farming in Africa faces the prevalence of diseases such as foot-and-mouth disease and rinderpest. These diseases lead to significant livestock losses and reduced meat and milk production, affecting farmer incomes.

Poor grazing land is another major challenge. Overgrazing and desertification have reduced the availability of fertile pastures in regions like the Sahel, making it difficult for farmers to sustain their livestock.

Inadequate access to veterinary services and modern farming techniques limits the ability of farmers to improve livestock health and productivity. This reduces the overall output of the livestock sector.

Conflicts between pastoralists and farmers over grazing land and water resources frequently lead to violence and displacement. These conflicts destabilize communities and disrupt livestock farming activities.

Climate change exacerbates droughts and reduces water availability, forcing farmers in regions like East Africa to migrate in search of better conditions. This migration destabilizes local economies and affects livestock productivity.